



UWI
ST. AUGUSTINE
CAMPUS

FACULTY REPORT

2020|2021

Future, First Draft

Our Theme

This 2020/2021 report documents the operations and progress of the St. Augustine Campus during its first full year of being physically locked down, as Trinidad & Tobago grappled with the second year of the COVID-19 pandemic. The Campus quickly implemented a number of changes on an emergency basis. Whether they had been in the pipeline for some time or were new but made necessary by the pandemic, it is accepted that many of these measures will be incorporated into our new normal. But to what extent, and how? For the St. Augustine Campus, the answers will no doubt come in subsequent reports. While the contents of this report give us a clearer view of the future, we know that this is only the first draft.

Our Cover

In keeping with our theme, Future, First Draft, a trio of pelicans, symbols of our university and our campus, are taking flight from a physical world represented by the blueprint of our iconic Old Admin Building, into a new digital future. The cover artwork for these reports was illustrated by Ms Khaffi Beckles who graduated from The UWI St. Augustine in 2017 with a BA in Visual Arts. In 2020 she received her MA in Art and Visual Culture Education from the University of Arizona. Ms Beckles is a mixed media artist and creative entrepreneur. Her illustrative work can be described as minimal and contemporary. You can see more of her work on her website,

<https://www.khaffibeckles.com>

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Faculty of Engineering

Dean's Summary

The Faculty made significant amendments to the Pre-Engineering Programme, making it more accessible to prospective students. The admission policy was changed to admit, not only students who had low grades at CAPE (Caribbean Advanced Proficiency Examination), but others who achieved high grades at the Caribbean Secondary Education Certificate (CSEC) level in Mathematics, Additional Mathematics, and other relevant subjects. The fees for the programme were also reduced, making the programme more affordable. In addition, some courses in the programme were revised. During this review period the Faculty started planning a four-year Master of Engineering (MEng) degree programme to ensure that its graduates receive the educational base necessary to achieve full professional registration status.

The Department of Chemical Engineering initiated a Memorandum of Understanding (MOU) between The UWI and the University of Trinidad & Tobago (UTT) to conduct joint research on Carbon Capture, Storage and Utilisation. Industry engagements conducted by **Professor Andrew Jupiter** and others, motivated partners such as the Ministry of Energy and Energy Industries (MEEI), Methanol Holdings Trinidad Limited (MHTL) and bpTT to provide substantial financial support to the Department's programmes and research activities.



Professor Edwin Ekwue
Dean

Faculty of Engineering (cont'd)

The Department of Civil & Environmental Engineering conducted the second phase of transforming the undergraduate curricula to reduce both credit hours and students' workload as recommended by the Department's accreditors, the Joint Board of Moderators of the United Kingdom. A number of public statements, symposia and outreach activities were undertaken which highlighted The UWI as the repository of engineering knowledge and relevant to the current needs of the society.

The Department of Electrical & Computer Engineering participated in Huawei's renamed Seeds for the Future two-week internship programme, held virtually in 2020 because of the international travel restrictions. The bMobile/UWI Innovation Laboratory powered by Huawei was completed and equipped. It was scheduled for commissioning in May 2021 but postponed until further notice due to the pandemic restrictions in force at that time .

The staff from the Department of Geomatics Engineering & Land Management continued to engage in public and professional service as members and leaders of premier international professional associations, advisory committees, steering committees, editorial boards, community organisations, task forces, working groups, and professional federations. Some staff are committee members for international organisations, such as the United Nations, as well as of governmental committees. The actions and achievements of the Department's staff continued a noteworthy record of enhancing the international reputation of UWI.

The Department of Mechanical & Manufacturing Engineering engaged in outreach activities catering to the needs of the less privileged sectors of society. The Department partnered with the Student Life and Development Department in the Campus Division of Student Services & Development to secure US\$50,000 for the project "Persons with Disabilities as Change Agents for

Upcycling Waste Plastics" from the United Nations Development Programme. The project explored means of recycling waste plastics for use in the 3D printing of prosthetic and assistive devices for persons with disabilities.

Enrolment

The total enrolment of students in the undergraduate and certificate programmes in the Faculty of Engineering decreased slightly from 1118 in 2019/2020 to 1113 in the 2020/2021 academic year. The Faculty engaged in heightened outreach efforts which resulted in increased enrolment in the BSc Mechanical Engineering and BSc Land Management programmes.

There was a slight increase in new post-graduate student enrolment during the year under review. Graduate enrolment increased to 793 students for the 2020/2021 period from 791 in the previous academic year.

Graduation

Despite the pandemic, the Faculty of Engineering partnered with sponsors to honour its top-performing students for 2020/2021 at its Prizes and Awards Ceremony conducted virtually in March 2021. Overall, 255 undergraduate students graduated from the Faculty. There were more than 100 MSc and MASc graduates, while three candidates obtained their PhDs.

Research

Department of Chemical Engineering

Dr Sharad Maharaj's areas of focus included, but were not limited to, solubility studies in supercritical CO₂ with curcuma longa; Optimisation of the Supercritical Fluid Extraction of Vetiver, Boutique manufacturing techniques for enhancing the value of local products; and product development of curcuma longa, amongst other areas. **Dr David Janes'** research included mathematical modelling proton-exchange membrane fuel cells (PEMFC); Investigating Industrial

Symbiosis Opportunities in T&T; and measurement of battery parameters during operations using ultrasound. **Dr Jeffrey Smith** focused on Polyethylene Terephthalate (PET) recycling; thermal degradation kinetics of PET from waste soft drinks bottles; analysis of solution viscosity data from PET samples, and synthesis of high-quality graphene using electrochemical exfoliation. **Dr Dhurjati Chakrabarti** studied three-phase flow in pipeline; rheology, emulsion and viscoelasticity; modelling of liquid/liquid phase separation/petroleum emulsions, and biomass recycling to enhance continuous hydrogen production.

Dr Carmen Riverol focused on desalination using liquid membrane; combined economic value and environmental impact (EVEI) analysis, heat integration and optimisation of utility system using HYSYS. **Mrs Thérèse Lee Chan** chose to study process control and optimisation; opportunities for repurposing of natural gas infrastructure to support a hydrogen economy in Trinidad & Tobago, and "Blue Hydrogen" vs "Green Hydrogen": Which offers the best-fit for Trinidad & Tobago's transition toward a sustainable petrochemical sector. **Dr Keeran Ward's** research was focused on sargassum (seaweed) to produce bioplastics; thin-film ion-exchange materials for treating wastewater effluents; and engineering sustainable power generation within Trinidad & Tobago, amongst other areas. **Dr Shelly Singh-Gryzbon** focused on biofluid mechanics; hemodynamic analysis of potential surgical options for Fontan patients; comparing healthy and stenotic hemodynamics in the coronary arteries, and Development of a COVID-19 vaccine: Behind the Scenes (a review paper). **Professor Dmitry Eskin** focused on research involving forecasting critical velocity in hydro transport; production of nanoparticles by grinding and evaluating the efficiency of various drying techniques and ground size on the herbal quality of pommecythere leaves.

Food Science and Technology

Dr Saheeda Mujaffar explored the development and assessment of a protein rich cookie supplemented with soya bean flour; fermentation behaviour and quality of selected cacao (*Theobroma Cacao L.*) genetic groups; as well as hot air (oven) freeze drying of banana (*Musa acuminata* AA Group) slices. **Professor Rohanie Maharaj's** research included, but was not limited to, consumer quality evaluation of hygienic practices of snow cone vendors in Trinidad; microbiological and quality analyses of bake and shark sold at Maracas Beach, Trinidad; cultivation of *Arthrospira platensis* (spirulina algae) and its incorporation into the food chain in Trinidad, and the characterisation, fermentation, and assessment of wine from noni fruits and its microbiological and antioxidant activity.

Petroleum Studies Unit

Petroleum Engineering

Professor Raffie Hosein examined heavy oil recovery and oil recovery from Trinidad Tar Sands By Radio-Frequency Heating; Enhanced Oil Recovery in Trinidad & Tobago: small fields with complex geology, and Carbon Dioxide Capture and Transmission for EOR and Sequestration onshore and offshore Trinidad. **Dr Lorraine Sobers** focused on Carbon Dioxide Enhanced Oil Recovery; Climate Change Response of Small Island Development States; and Carbon Dioxide Emission Reduction in Trinidad. **Mr Hamid Hassanali's** research involved determination of individual layer permeability and skin in multilayer reservoirs; developing a wellbore stability basis of design for the Columbus Basin and assessing the impact of faults on the wellbores in the Basin, and developing a GAP model in REPSOL's Teak field to optimise gas injection and ultimately maximise oil production. **Professor Andrew Jupiter's** research focused on Gas Hydrates; CO₂ Flooding/Sequestration; and Fluid Studies, Heavy Oil Recovery and Oil Recovery from Tar Sands.

Faculty of Engineering (cont'd)

Petroleum Geoscience

Dr Ryan Ramsook's research centred on the geologic evolution of upper cretaceous outcrops in central Trinidad and its implications for the geothermal history of the Central Range; understanding the changing clinofom architecture of the late Miocene cruse formation, the first clastic wedge of the Paleo-Orinoco Delta; and the impact of Kick 'em Jenny on Foraminiferal communities.

Dr Oshaine Blake focused on research on Attenuation as a tool to assess fracture state; static and dynamic elastic properties; and petrophysical study of core from geothermal energy system, Montserrat. **Dr Anastasia Baboolal** studied, organic geochemistry; organic petrology; mineralogy, and igneous and metamorphic petrology.

Department of Civil and Environmental Engineering

The Department's areas of inquiry included **Dr Richard Clarke's** studies on seismic retrofit design procedures for single-story unreinforced masonry houses in Trinidad & Tobago; Ferro cement wall panels under combined axial load and bending; experimental behaviour and theory; and the Da Hysteresis Model in consideration of drift elimination and adaptive parameters for a multi-linear envelope. **Dr Trevor Townsend** also focused on RDI funded research on developing a travel demand model for Trinidad. Research was successfully completed and model applications were demonstrated for the Public Transport Service Corporation, Ministry of Works & Transport, Town & Country Planning Division, Ministry of Planning and Inter-American Development Bank. **Dr Abraham Mwash** considered manufacturing, patenting, and commercialisation of multi-faced blocks, an RDI Fund Innovation Proof of Concept Grant-5th Project valued at TT\$350,000.00; while **Dr Vincent Cooper's** work on the impact of agriculture on water quality in Guanapo continued in collaboration with the Ministry of Agriculture. **Dr Kailas Banerjee's** research was wide-ranging and included areas such as environ-

mental radiation monitoring in Trinidad's Central Range Fault Zone and associated mud-volcanoes; the scope of disaster management in building resilience in the construction industry; and e-waste management. **Professor Hazi Azamathullah** worked on a St Lucia Climate Change Project; and **Dr Festus Olutoge** looked at the compressive strength of slag-based geopolymer concrete incorporated with either rice husk ash with 12 and 14 molarity or palm oil fuel ash.

Commercial Projects

Dr Trevor Townsend and **Dr Lee Leon** at the Highway Engineering Laboratory partnered with Danny's Enterprises Co. Ltd to provide laboratory testing services to the company. The tests carried out were on (a) Aggregate materials, (b) Asphalt Mix Design and (c) Asphalt mix testing. This is an ongoing project at a cost of TT\$39,168.90. **Dr Deborah Villarroel-Lamb** participated in the Ministry of Energy and Energy Affairs, Trinidad & Tobago European Regional Development Fund - INTERREG Caraïbes; as well as the CARIB-COAST Project – a Caribbean network for prevention of coastal risks related to climate change. **Dr Villarroel-Lamb** was a named Investigator from the UWI, St. Augustine Campus. Funds from the project were used to procure equipment for coastal data collection. This three-year project was initiated in November 2018.

Department of Electrical and Computer Engineering

The UWI COVID-19 Engineering Response Team was formed by the St. Augustine Campus Principal in March of 2020. The team consists of DECE staff with the aim of investigating ways in which The UWI could leverage its engineering expertise to support the nation and the wider region in responding to the then-emerging pandemic. The team identified several critical areas with some of the following initiatives and systems were realised and some were still ongoing during the review period:

- The Protect a Doctor Kit and donations

of video laryngoscopes aimed to provide doctors with the necessary PPE.

- The UWI-Shield: The UWI entered into licensing agreements to mass manufacture this face protection equipment.
- The UWI-ARAD: An air recirculation and decontamination unit that when independently tested achieves ISO clean room levels. Conversations are ongoing for the adoption of these units in NWRHA hospitals.
- The UWI-Vent: A high acuity medical ventilator to combat the existing global shortages.
- The UWI-Sentry: An autonomous disinfection robotic platform to reduce the rate of fomite-mediated transmissions.

The team was awarded an RDI grant of TT\$650,000 to fund three of the projects led by **Dr Craig Ramlal**. **Mr Jeevan Persad**, a Senior Research Technician in the Department was appointed to Chair CARICOM's Regional Project Team for the development of Regional Standards for Face Masks. To insulate the Region from future outbreaks, the Department recognises the need to establish a medical engineering and manufacturing industry. These pilot projects represent the initial steppingstone towards that ideal.

Department of Geomatics Engineering and Land Management

S. Hunte, S. Maharaj, M. A. Ivey, M. Sutherland, R. Naidu, G. St. Bernard, N. Headley, and D.T. Simeon, joined a multi-disciplinary team comprised of researchers from the Faculty of Medical Sciences, Faculty of Social Sciences, that assessed the preparedness of Primary Healthcare Facilities in Trinidad & Tobago for COVID-19. Very preliminary results indicate that, among other things, that facilities in Tobago were generally less prepared than those in Trinidad. This estimation was made at the time of a report to a seminar titled

The UWI St. Augustine COVID-19 Research: Evidence to Inform a Multidisciplinary Response to the Pandemic. Meanwhile, Asad Mohammed was the Project Lead for a successful UWI proposal under the European Union (EU) Innovation Call. The four-year project "Harnessing innovative technologies to support resilient settlements on the coastal zones of the Caribbean" (called Hit-Reset) started in January 2021, with a grant of a EUR 4,200,000.

Department of Mechanical and Manufacturing

Research continues in the different disciplines in the Department, facilitated by the deployment of graduate students and associate professionals. There are also collaborative projects in the DMME. The Manufacturing Clusters Team, headed by **Professor Kit Fai Pun** and supported by **Dr Cilla Pemberton** and Ms Ambika Koonj Beharry, completed the first two phases of a collaboration INVEST project with the Faculty of Applied Science and Engineering, University of Toronto (Ont), Canada. The project aims to bring a perspective from a developed country on international best practices as it relates to innovation in the manufacturing sector and the development and management of globally competitive cluster networks. There was another collaborative research project with the U of T (Ont.) examining multiphase flow induced vibration in complex piping manifolds.

Professor Boppana Chowdary continued to consider Fused Deposition Modelling (FDM) Process for part quality improvement; the application of Polylactic Acid (PLA) as an eco-friendly alternative to petroleum-based plastics in Trinidad & Tobago; development of empirical models for the material extrusion process, and analysis of part defects in Acrylonitrile Butadiene Styrene (ABS) samples generated from an additive manufacturing process, among other areas. **Professor Edwin Ekwue's** research focused on greenhouse technology and controlled

Faculty of Engineering (cont'd)

environment agriculture; the effect of machinery traffic and soil amendments on soil erosion and cultivation; the effect of organic and other amendments on soil physical and engineering properties, and the design and development of equipment for conducting experiments on soils. **Professor Kit Fai Pun** was the Project Lead for the UWI-Manufacturing Clusters Team (UofT-UWI InVEST Collaboration Project). He also conducted research on expanding the online interface of the West Indian Journal of Engineering to foster engineering research and publication in the Caribbean, and investigated the quality management practices of Industrial enterprises in Trinidad & Tobago. **Dr Krishpersad Manohar's** investigated novel designs of wind turbine systems; thermoelectric air conditioning systems; replacement of traditional refrigerants in air conditioning systems, and wave energy conversion systems.

Dr Jacqueline Bridge concentrated on shape memory alloys for vibration mitigation; non-linear dynamics in engineering structures, and mathematical modelling and analysis of wave energy conversion systems. **Dr Graham King's** focus on the energy and economics of vehicle electrification in the Caribbean and Small Island Developing States; digital transformation and Industry 4.0 in the Manufacturing and Energy Sectors in Trinidad & Tobago, and innovation and engendering an effective innovation ecosystem in Trinidad & Tobago. **Dr Chris Maharaj's** research included alternative use of waste materials (e.g. plastic and tyre waste); mechanical design optimisation (mechanical and electromechanical systems); Failure analysis of mechanical and structural components, and a life assessment of components subjected to severe conditions. **Dr Anthony Adeyanju's** focus involved research in biomass gasification and PYROLYSIS using local biomass; SYNGAS/BIOGAS that can be used as a replacement for natural gas for downstream petrochemical industries; research in wind energy technologies, such as: perpendicular wind turbines,

dual wind turbine generator system, bladeless windmill (VORTEX TYPE), and research in solar thermal energy technologies such as: automated solar lawn mower.

Research interests within the Department included **Dr Richard Bachoo's** investigations into flow induced vibration in process piping systems; high frequency structural vibration, and vibration of composite materials. **Dr Ruel Ellis** explored e-learning curriculum design, development and implementation, and protected agriculture systems design and development. **Dr Cilla Pemberton** committed her time to value stream mapping of indigenous industries, lean healthcare, and Engineering entrepreneurship education. **Dr Renique Murray** researched energy harvesting, biofuels, and development of agricultural machinery. **Dr Robert Birch** studied soil tool interactions, and power hydraulics.

Strategic Review

ACCESS

In seeking to provide a university for all, despite the COVID-19 pandemic, the Faculty continued to upload courses and modules to myeLearning and taught remotely using Blackboard Collaborate (BBC)/Zoom. Virtual labs, virtual field trips and virtual tours, remote access to data rooms, and software continued to be provided to students to complete any outstanding labs, field trips, and project reports. Projects and coursework with presentation components were conducted via Zoom. Together, these measures ensured all required Learning Outcomes were achieved. The courses within the Pre-Engineering programme were revised and received approval from the Board of Undergraduate Studies (BUS). This programme review allows applicants with high CSEC grades as well as those with low grades at CAPE to be admitted into the programme. This allowed more persons across the region have access to all programmes in the Faculty through the Pre-Engineering programme. The Department of Mechanical

and Manufacturing Engineering (DMME) hosted several short courses in Engineering Asset Management in February and March 2021. The Department of Chemical Engineering (DCE) is now fully capable of offering online courses and programmes, remote access to software training, virtual labs, and field trips.

On November 21, 2020 the Food Science and Technology Unit (FSTU), in collaboration with the Engineering Institute delivered a short course: The Practical Art of Wine Making and, on December 2020, a training course Basic Food Microbiology was delivered to participants from Guyana. The Department of Civil and Environmental Engineering (DCEE) delivered several seminars during the period under review. These included, Gender Equality in Engineering, Impact of COVID-19 Pandemic on Transportation in the Caribbean, and Perspectives on Sustainable Transport in Trinidad & Tobago. The Department of Electrical and Computer Engineering (DECE) conducted training sessions for Caribbean Centre for Renewable Energy & Energy Efficiency (CCREEEE) on Basic Demand Projection, and Basic Demand Side Management and Grid Modelling which had participants from key organisations across CARICOM.

The Department of Geomatics Engineering and Land Management (DGELM) completed the second phase of a multi-year marketing campaign to increase the visibility of the Department's four major programmes: BSc in Geomatics, BSc in Land Management, MSc in Geoinformatics, and MSc in Urban and Regional Planning. At least two programmes saw increased numbers while others held steady.

The Faculty of Engineering fell within Phase 2 of the Campus project to upgrade the wireless infrastructure to support student learning. The budget estimate was TT\$2,500,000 of which TT\$2,000,000 was funded from the Student Amenity Fund and \$500,000 from Central Expenditure. This is an ongoing project. Students in the Faculty continued

to be provided with additional access to facilitate their continued learning. Accreditation reports were submitted for MSc Food Science and Technology Programme and accreditation was maintained for the Department.

The Faculty continued many innovative projects mainly through five of its staff who received grants approximating TT\$2.7 million from the Research, Development and Innovation (RDI) fund.

ALIGNMENT

The Department of Chemical Engineering (DCE) held virtual meetings with prospective students in Guyana and Suriname to market the Department's programmes. Updates were made to the Department's website to showcase programmes, achievements, and opportunities available to students and services that the Department can offer to stakeholders. New prizes for students were provided by Proman Limited (Trinidad & Tobago), Arawak Company Limited and Dr Saheeda Mujaffar, Trinity Exploration and Production PLC (Trinidad & Tobago). The Department of Electrical and Computer Engineering (DECE) successfully resumed its Community Service Learning (CSL) programme and the Department of Geomatics Engineering and Land Management (DGELM) put in motion plans to engage Caribbean island entities regarding Geomatics training. Negotiations began with the Surveying Department of the Government of Dominica for GIS and GPS training. The DCE increased and improved its Academic/Industry Research Partnerships. Research collaboration occurred with the National Gas Company (NGC) on a corrosion project and with SHELL and Penn State University on gas hydrates. Collaboration with SHELL also occurred on well bore stability during drilling operations. SHELL provided a scholarship of US\$30,000 annually for three years to a PhD student.

The University of the West Indies and the University of Trinidad & Tobago signed an MOU with bpTT to conduct a research

Faculty of Engineering (cont'd)

project on Carbon Capture and Storage. There were new technological advances in synthesis of gas sustainable operations of the global methanol industry with Johnson Matthey, UK and ODPM partnership with the Petroleum Studies Unit in monitoring the Piparo Mud Volcano.

The UWI, TSTT and Huawei renovated and completed the refitting of the Block 11 space to create the bMobile/UWI Innovation Laboratory powered by Huawei in the Department of Electrical and Computer Engineering. The Department continued its collaboration with the International Telecommunications Union (ITU) for the development of regional specific communication devices to assist local fisherfolk. It explored with Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) research and regional consultancies opportunities with electric mobility. Department of Mechanical and Manufacturing Engineering (DMME) continued discussions with the Trinidad & Tobago Energy Chamber about the introduction of an MSc in Subsea Engineering.

AGILITY

The DCE continued its delivery of its MSc Petroleum Engineering Programme at the University of Guyana (UG). This self-financing programme requires a minimum of ten students at the cost of US\$8,400 per student per year. DCEE had an enhanced educational, scientific, and cultural cooperation with the University of Mainz. The DCE developed short courses, software training programmes, lab, and research facilities to provide a service to its stakeholders. The DECE conducted training sessions for CCREEE on Basic Demand Projection, Basic Demand Side Management and Grid Modelling.

Efforts to foster entrepreneurship and innovation included a new hurricane-resistant roof (ready for partnership) and three new types of earthquake and hurricane-resistant

walls (proof-of-concept completed).

The DMME continued its delivery of its short courses through the Engineering Institute, especially in Engineering Asset Management. These courses included Vibration Analysis, Maintenance Planning and Scheduling, Machine Learning and Artificial Intelligence, Maintenance Analysis and Optimisation, Optimisation of Asset Integrity and Plant Turnaround and Shutdown Processes. The DCE received funding support of TT\$ 3.0 million from the Ministry of Energy & Energy Industries (MEEI) for the operations of the BSc Petroleum Geoscience programme and to offer 30 scholarships and incentives to students in the BSc and MSc programmes in the Petroleum Studies Unit.

Funding support was received to the tune of TT\$1.0 million from bpTT for the operations of the BSc Petroleum Geoscience and MSc Reservoir Engineering Programmes, and to offer scholarships for three BSc Petroleum Geoscience students at a value of TT\$30,000 each. Funding support of US\$150,000 was also received from Proman Limited (Trinidad & Tobago) for the Dennis Patrick MHTL Chair in Petroleum Engineering. Schlumberger continued its support to the PGSC programme and by extension the PSU with a software package donation valued at TT\$40,136,362.87. Licenses will be issued as a three-year right to use (2019-2022).

In the DECE, COVID-19 projects progressed to prototype development. There was conformity with Campus, WHO, and OSHA rules to ensure staff and students' safety, while on campus. VPN access continued to be rolled out to key staff in the Faculty during the Covid-19 lockdown. This measure continued even after allowing staff continued remote access to Enterprise applications such as Banner Finance, PeopleSoft (for administrative staff) and the Help Desk Application to generate various student reports. Increased remote support was provided via Zoom and WhatsApp to help staff access these tools

and services. Application installation and configuration guides were developed to support this process. In DECE, all meetings have been virtual, with active staff participation. Staff pivoted to remote operations and were available to respond electronically and by telephone where necessary.

Due to the impact of COVID-19 in 2020/2021, orientation and academic advising continued to be conducted online. All programme delivery and assessments continued online, and programme assessment of some courses were changed from traditional final exams to 100% coursework and final assessments. Virtual internships, virtual labs, fieldtrips (with drone technology), virtual rock tours, remote access to data rooms and software were provided to students to conduct their coursework, labs software exercises and

project reports and to ensure all required learning outcomes were achieved. Projects and coursework with presentation components were conducted via ZOOM. The Faculty is fully capable of offering online courses and programmes, remote access to software training, virtual labs and fieldtrips. The DECE also developed and tested an automated ChatBot to assist with the online academic advising process. <https://ecng.sta.uwi.edu/chat/>

Distinguished Visitors

Professor John Allport

University of Huddersfield, UK

Professor Alan Bowling

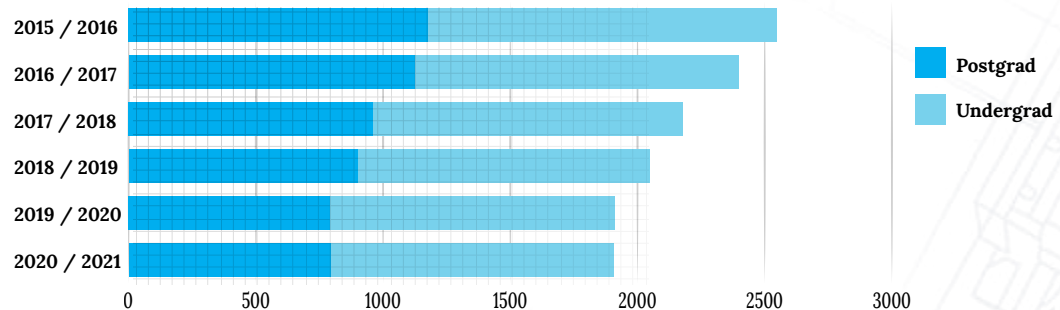
University of Texas in Arlington

Dr Earle Wilson

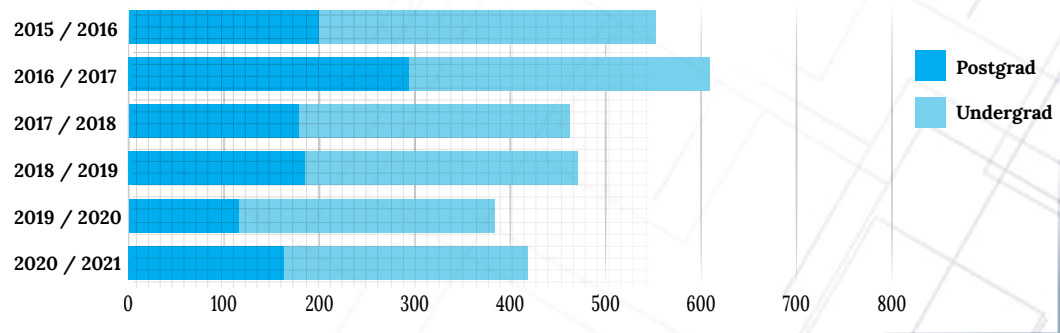
University of Technology, Jamaica

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Food & Agriculture

Dean's Summary

The Faculty of Food and Agriculture (FFA) continues to forge ahead in teaching, research, outreach, and innovative initiatives. Despite the imposition of the COVID-19 pandemic and increasing financial strain, our focus remains on being at the forefront of teaching and research with a multidisciplinary approach to addressing the need for food and nutrition security in a sustainable national and regional environment that is resilient and safe.

Despite the general plummeting enrolment numbers in a pandemic year, it is exciting to report that our postgraduate enrolment figures increased by about 65%. This was due mainly to strategic outreach activities and the conversion of our Master programmes to blended delivery modalities. The conversion of these programmes made them amenable to serving stakeholders and more adaptable to learning in a pandemic environment. One new MSc in Food Security) and a new BSc in Disaster Risk Resilience for Agriculture and the Environment were approved.

Despite the daunting effects of the pandemic, staff did very well in research and publications. The report shows that 33 articles were published in respected peer-reviewed journals, 16 book chapters, and a significant number of conference abstracts and



Dr Mark Wuddivira
Dean

Faculty of Food & Agriculture (cont'd)

technical reports. The FFA graduated four doctoral students in the reporting period, which is encouraging for a small faculty in a year that offered untold restrictions to effective research. Two colleagues were promoted to the rank of Senior Lecturer. Staff showed resilience by positively traversing the huddles of the prevailing pandemic and successfully maintaining a high standard in teaching and conducting authentic/alternative assessments in the virtual space.

Programmes were promoted through strategic outreach webinars. The FFA kick-started the Centennial Legacy Celebration of 100 years of Excellence in Teaching, Research, and Innovation in Agriculture at UWI-STA. A revenue-generating venture referred to as Agro-Environmental Services (AES) was commissioned to provide soil, water, plant diagnostic, and animal nutrition services to stakeholders and the public. The Professional Certificate in Plant Quarantine, our first full online programme was developed, and the first fully sponsored cohort was due to commence the programme in 2021/2022.

Enrolment

When compared to the 2019/2020 academic year, there was a decrease in the number of students enrolled in both undergraduate and postgraduate degree programmes offered by the Faculty.

Graduation

This year saw the first cohort of graduates from the Certificates in Human Ecology and Environmental Geography with 12 students, transitioning to Bachelor degree programmes within the FFA.

MSc Degrees Awarded

Twelve students were awarded MSc degrees during the 2020/2021 period. These included, MSc Tropical Animal Science and Production: Ms Alisha Sookrali (Distinction), and **Mr David Ramcharan**, MSc Tropical Crop Protection: **Mr Tariq Ali**, Ms Ameera Khan, and **Mr Pascal Okoye** (Distinction); MSc Agri-

Food Safety and Quality Assurance: **Mrs Sana Ali-Mohammed**, **Ms Nykelle De Bique**, **Ms Valini Holassie** (Distinction), **Mr Andre John**, **Mrs Andrea Mulraine-Ash** (Distinction), and **Ms Purandaye Munessar** within the Department of Food Production. Within the Department of Agricultural Economics and Extension **Sabrina Ragoo** was awarded the MSc Marketing and Agribusiness

Postgraduate Diplomas in Tropical Crop Protection were awarded to Ms Crystal Kalicharan, and Ms Mahalia Marshall. Postgraduate Diplomas in Agri-Food Safety and Quality Assurance were awarded to Ms Jeanee De Silva, Ms Winona Franklin, and Mr Keegan George. The Department of Agricultural Economics and Extension awarded the PhD Human Ecology to **Chanelle Joseph**, and **Nequesha Dalrymple**.

Outstanding Students

Department of Agricultural Economics and Extension

The Department awarded several prizes to outstanding students during the 2020/2021 academic year. The Head of Department Prize was awarded to: Shauntel Carabai - Best Performance in Human Ecology- Level 1, Justine Henry - Best Performance in Human Nutrition and Dietetics- Level 1, Isaiah Small - Best Performance in Agribusiness Management- Level 2, Rebekkah Bahadoor - Best Performance in Human Ecology- Level 2, and Maia Valentine - Best Performance in Human Nutrition and Dietetics- Level 2.

Several other prizes were awarded to students such as Rozette Scotland who received the Dr Sunney D. Alexis & Collette Lewis-James Memorial Prize for the Best Performance in Human Nutrition and Dietetics in Level 3, as well as the Human Nutrition and Dietetics Prize; and Angel Harrypersad who won the Inter-American Institute for Corporation on Agriculture (IICA) Prize - Awarded for the Best Final Year Project demonstrating excellence in Agribusiness).

The prize for the Best Performance in the Major in Entrepreneurship over Years II and III went to Anthonia McDonald; the Alumni Association Prize was awarded for the Best Performance in BSc Human Ecology to Maydee Smith; while the Wayne Ganpat Prize and the Joe Pires Memorial Prize were both awarded to Brandon Ali.

Department of Food Production

The Department was awarded several prizes to outstanding students. The Head of Department Prize was awarded to the following students for the best performance in the Undergraduate Diploma in Agriculture: Vuai Fermin (Level 1), and Sasha-Marie Clarke (Level 2). For the best performance in BSc Agriculture the Head of Department Prize was awarded to Xavier Joseph (Level 1), and Josiah Mongru (Level 2). Ethan Redhead (Level 2) and Daniel Rooplal (Level 3) received it for the best performance in Agricultural Technology Major

The **Professor Richard** A.I. Brathwaite Prize was awarded for the best performance in the BSc Agriculture to Jonathan Mycoo. **Mr Mycoo** also received The Frederick Hardy Prize for the year III student who obtains the highest marks in courses taken in Soil Science at the levels II and III examinations including the Project, and The Principal's Prize for the best performance in the BSc Agriculture over Years I to III.

Special Prizes

The Ministry of Agriculture, Land and Fisheries Prize was awarded to Valini Holassie for the best performing student in the mandatory research project of the MSc Agri-Food Safety and Quality Assurance; and to Andrea Mulraine-Ash for the best performing student in the core courses of the Diploma/MSc Agri-Food Safety and Quality Assurance. Andrea Mulraine-Ash also received the Muriel Turnbull Prize for the best oral presentation in the MSc Agri-Food Safety and Quality Assurance Research Project.

Research

Within the Faculty, several staff members embarked on research during the 2020/2021 academic year. Within the Department of Food Production, **Dr Gaius Eudoxie's** research involved the UWI-RDI Fund project 'Circular farming - An Innovative and Resilient Food Production System for a Changing Climate' which was considered for expansion by NGC with the primary objective to "establish, showcase, and evaluate a scalable Circular Farming Systems at the UWIFFA Agricultural Innovation Park (AIP) and NGC Fence Line. She also focused on the CambioNet project: Building together a new agriculture in the Caribbean/Amazonia Zone. The project was officially launched in April 2021 and **Dr Eudoxie** was the team lead for the FFA. Her FAO project on "Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean" – Component 2: Technology Transfer of methodologies for identification and remediation of contaminated sites ended in April 2021, with all deliverables completed. It was the first of its kind in the English-speaking Caribbean and showcased the potential for remediation of obsolete pesticide contaminated through low-cost technology, namely immobilisation and bioremediation.

Professor Duraisamy Saravanakumar's studied the health impacts of pesticides used in vegetables grown in Trinidad, He used a Health App developed by the PAN-UK and the project was carried out under the GEF funded FAO project "Disposal of Obsolete Pesticides including Persistent Organic Pollutants (POPs), Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean". **Professor Saravanakumar** also tested the efficacy of safe alternatives (food spray) to highly hazardous pesticides (HHPs) in the management of pests and diseases in vegetables under the same GEF funded FAO project. The UWI/TT RDI Fund Biophyt project has developed the liquid and solid formulation for disease management in vegetables and clinical trials to generate toxicology data for registration are in progress.

Faculty of Food & Agriculture (cont'd)

Dr Ronald Roopnarine's research was focused on the CapNet UNDP / Caribbean WaterNet (Regional Capacity Building in Integrated Water Resources Management) study. Arising out of this, two peer reviewed technical manuals were developed which are accessible via the UNDP and Global Water Partnership online portals. Additionally, an online course on IWRM, Climate Change and Youth was developed and delivered as part of the GWP-C Water Academy of Youth, from July- August 2021.

Department of Agricultural Economics and Extension

Individual Food Consumption Survey and Analysis in St. Kitts and Nevis, and St. Vincent and the Grenadines.

Responsible Officer:

Dr Sharon Hutchinson

Principal Investigator:

Dr Isabella Granderson

Investigators

Dr Marquitta Webb (Co-PI), Dr Sa'eed Bawa

Food Composition Tables (nutrients) for the Caribbean have been developed. This replaces the last Food Composition Tables done in the 1990s. This would greatly aid nutritional analysis of Caribbean foods in the future, by individual countries and researchers, and reduce costs of acquiring this information for future researchers. The 24-hour recall data analysed for St. Vincent and the Grenadines will result in increased understanding of food consumption patterns for their population. The nationwide 24-hour food consumption recalls completed for St. Kitts and Nevis (SKN), along with the statistical analysis of the data would support capacity building for health professionals in SKN, as well as researchers at UWI who were directly involved in the project. This developed the skills to replicate such a study, the first of its kinds to use the myfood24@ system, in the Caribbean. The project will also result in evidenced-based policy making and the baseline food and nutrition data needed for long term monitoring of the food

and nutrition status of residents of SKN. The 24-hour food consumption recall data for SKN was also uploaded to the WHO/FAO GIFT platform, to facilitate open access of this data for future research and policy analysis.

Supporting Venezuelan Migrants in the Caribbean project between The UWI, USAID and Pan American Development Foundation (PAF).

Investigators:

Dr Isabella Granderson (DAEE) and

Dr Arlette Saint Ville (DG)

The hunger status among asylum-seeking and undocumented migrant population of Venezuelans in Trinidad & Tobago, done by Open Hands Research is expected to provide more targeted intervention in the migrant population to reduce hunger and improve their food and nutrition security. Such an outcome is expected via the efforts of the government, the private sector and several Non-Governmental Organisations and Church-Based Organisations who currently serve their needs.

Take 10! Physical Activity Intervention and Formation of the Caribbean Network in Human Movement and Health.

Responsible Officer and Principal

Investigator: **Dr Anisa Ramcharitar-Bourne**

The nutrition education with among pre-school-aged children in the St. George East District is expected to increase nutrition security among these children, and their families. This would result in greater nutrition security among pre-school-aged children, and their families. With the covid-19 coronavirus pandemic, the International Life Sciences Institute (ILSI) and The UWI have been engaging virtually to create the Caribbean Network in Human Movement and Health which is expected to see the nutrition education done in Trinidad spread to other Caribbean countries. The current phase of the project ended in June 2021. Future work is planned, but the execution is uncertain amidst the current COVID-19 pandemic.

Support for the Value Chain Analysis and Action Plan Development for the Seabob Industrial Fishery Value Chain in Guyana.

Responsible Officer and Principal Investigator: **Dr Sharon Hutchinson**

Investigators:

Dr Govind Seepersad (DAEE), **Mr Omardath Maharaj** (DAEE), **Dr Deborah McFee** (IGDS), **Dr Talia Esnard** (Faculty of Social Sciences), and **Mr Zaheer Hosein** (Faculty of Science and Technology, UWI).

This project resulted in increased dialogue and collaboration among key Seabob (shrimp) industry in Guyana: industrial fishing companies, artisanal fishers, government fishery managers, fishery cooperatives, international conservation agencies, FAO, regional and international fishery experts. Further, new information was provided on consumer preferences for Seabob, other shrimp and seafood; the social and economic status of workers in the Seabob sector; better understanding and measurement of direct economic, social, and environmental impacts of the Seabob Value Chain on key stakeholders. Mainly, however, the project provided an upgrade strategy for Guyana's Seabob Value Chain that all stakeholders can adopt, based on the broad participatory approach used in data collection. This is expected to increase profitability and sustainability of the artisanal and commercial Seabob fisheries over the medium to long term.

Capacity Building for Caribbean Agricultural Extension region to respond to the challenges of Climate Change

Principal Investigator:

Professor Wayne Ganpat

The establishment of a Regional Extension Training Platform utilising state-of-the-art Information and Communication Technology (ICT). The project is intended to strengthen the capacities of extension officers in the region to meet the needs of the sector, strengthen the resilience to climate change, adoption of climate smart production systems, production of safer food with reduced emphasis on harmful

agro-chemicals, expansion of the production base and product offering and improved adoption of more effective communication systems. The ICT platform would make the much-needed training of extension officers and farmers more cost-efficient as well as more accessible based on the flexible schedule that such a platform offers particularly for officers whose functions are not exclusively extension services.

Farmer2Farmer

Investigators:

Professor Wayne Ganpat, **Dr Jeanelle Joseph** and **Dr Tessa Barry**

Phase I has been completed in collaboration with Purdue University. Thus far, training was carried out with NAMDEVO, the Rural Women's Network and the Ministry of Agriculture. Virtual training opportunities involved local and US volunteers as facilitators covering a range of topics such as the use of ICT to assist in capacity development. Phase II began in January 2021 and is expected to enhance efficiency of staff at NAMDEVCO, the Ministry of Agriculture and other NGOs in good agricultural practices.

New Extensionist Learning Kit (NELK)

Investigators:

Dr Jeanelle Joseph and **Dr Tessa Barry**

Regional Online Extension Training resumed in July 2020 and continued periodically and ended in March 2021. This project allowed for enhanced agricultural extension learning in the Caribbean, as well as allowed CAEPNET secretarial support for one year to aid in capacity building of the organisation.

Department of Geography

Several staff within the Department focused on different research areas. These included, **Dr Saint Ville** creation of a Research Topic Bank repository to aid the Department with strategic alignment; **Dr Farrick** working with IAMovement on two projects: The role of vetiver as a companion species in quarry rehabilitation and restoration, and The role of vetiver in reducing surface erosion and runoff, and enhancing deep soil water flow

Faculty of Food & Agriculture (cont'd)

and groundwater recharge in agricultural slopes in Paramin. He was also awarded a prestigious Royal Society Grant to use isotopes to examine the competitive balance for water among cocoa and forest trees in Agroforest systems.

Strategic Review

ACCESS

Dean's Office (Includes Business Development Unit And University Field Station)

The Dean's Office oversaw cooperative development (with The UWI Open Campus) and delivery of the fully online certificate in Plant Quarantine Basics. The first cohort fully sponsored by the United States Department of Agriculture (USDA). A professional training programme in Climate Smart Agriculture for extension service capacity building in Dominica was developed. The programme is presently being converted to a Community Education Programme for certification. Several virtual student engagement and outreach events were coordinated including "Our Flavour" and "Growing the Caribbean"

The Dean's Office engaged in meetings and discussions with stakeholders towards partnership and cooperative agreements in research and development across the agri-food system. Some notable engagements occurred with the Food & Agriculture Organisation with whom a Letter of Agreement was completed over the review period. Additionally, the Partnership Initiative on Sustainable Land Management where a Global Environment Facility funded project SOILCARE has been approved and is expected to be implemented in 2022. The Unit continues to serve as the focal point for UWI's participation in the CARICOM instituted Agriculture Food and Nutrition Cluster (AFNC) under thematic and commodity groups. The office also contributed to the development of the regional CARICOM COVID19 Agri-Food Action Plan. Additionally, an MOU was signed with IAMovement which

resulted in funding and support for five graduate students researching the multiple uses of Vetiver.

University Field Station

The Field Station continued to provide technical support with the development of the Diploma in Agriculture and provided both technical support and facilities for FFA short courses. There are plans to acquire more up-to-date teaching aids to conduct courses.

The Field Station partnered with the School of Veterinary Medicine to provide reproductive and other samples for teaching and research. Services of qualified veterinarians were retained to provide technical support and on-site veterinary care to the livestock units. Reduced rainfall brought about by climate change affected pastures which caused the irrigation system to lead to a decay and malfunction.

Breeding stock for local farmers and student entrepreneurs was provided, despite the high cost of maintaining the farming facility, and the cost of feed and labour. There are plans to acquire new breeding stock and revamp the livestock breeding programmes, as well as to expand the dairy herd for teaching, research, and breeding stock for farmers, and the cattle herd for large scale beef production and value added products.

Department of Geography

The Department completed its first Quality Assurance Review in April 2021 and received recommendations to improve the quality of teaching, learning, and throughput which included the implementation of the standard operating procedures of the Staff Student Liaison Committee, which are documented and stored in the Department. Discussions were held with other Departments to produce additional electives – two with the Department of Physics encompassing Earth Science and Oceanography and Hydrogeology to be offered in Semester 1 of the 2021/2022 academic year. The Department is also working with the Academic Literacies

Programme and the Writing Centre to improve the quality of writing of undergraduate students. Peer review to be implemented for group assignments/work to improve the quality of work submitted by students.

To increase and improve research publications, **Dr Arlette Saint Ville** presented at a campus research webinar titled “The Implications of Food Security Due to COVID 19” on February 18, 2021 (alongside colleagues from DFP) on Key Findings from The UWI-Pan-American Development Foundation research on “Food Insecurity among Venezuelan migrants and refugees in TT”.

Several courses were revised and developed in the period under review. A Minor in Physical and Human Geography was under revision with the hope for full approval by 2022. The Environmental & Natural Resource Management programme was revised to align the programme with geography and international environmental science courses and to ensure that courses do not overlap. Several inconsistencies with course codes and prerequisites were corrected to ensure accuracy and uniformity with what had been approved. This would be reflected in all correspondence, on a database, the Faculty Booklet, and the Banner System. With the onset of COVID-19 and the feedback from the student survey, the Department made a concerted effort to revise course outlines. Thirteen courses were modified to include blended learning and many electives were revised to be assessed by coursework only.

The Department created an alumni database which will be used to promote guest presentations, for outreach and to encourage greater contact with alumni overall. Staff continued to regularly publish peer reviewed articles and sought external and internal grant funding. Four peer reviewed publications, including two resulting from undergraduate student projects were published during the period.

Department of Food Production

Proposals for new programmes - an undergraduate Major in Disaster Risk Resilience in Agriculture and the Environment, and a Postgraduate Master's in Food Security were prepared and obtained necessary approvals for delivery in 2021/2022 and 2022/2023 respectively. The proposals for the conversion of the following Taught Master's programmes from face-to-face to blended delivery – Tropical Animal Science and Production, Tropical Crop Protection, Value Addition for Food and Nutrition Security were prepared and received necessary approvals for delivery in 2021/2022. The Department is exploring the market demand for a Postgraduate Certificate in Pesticide Management and an undergraduate Plant Medicine programme. The proposal for the BSc Agriculture was revised after consultation with internal and external stakeholders.

The global pandemic has affected the delivery of the BSc Agriculture, and Agricultural Technology programmes. Their delivery had to be modified to effectively accomplish learning objectives of the programmes. Alternative assessments had to be developed for courses with lab and or field/practical components which posed a challenge. Students who are kinaesthetic learners may be at a disadvantage. The Department intends to revise the Agriculture programmes to suit the present needs of the region and change of its delivery from face-to-face to blended mode to increase its reach and to cope with challenges posed by the pandemic.

Department of Agricultural Economics and Extension

The Department saw an increase in enrolment in programmes in the areas of Family and Consumer Sciences, Foods and Food Service Systems Management and Human Nutrition and Dietetics. There was also a 30% increase in enrolment in all undergraduate and postgraduate programmes. This was positive, especially due to the limited budget to continually engage in outreach

Faculty of Food & Agriculture (cont'd)

activities, as well limited ATS staff to support recruitment activities. The intention is that the Department will have local, regional, and international marketing using social media and traditional platforms, and peer-to-peer engagement to boost recruitment in the future. The Department also intends to conduct outreach by sharing academic presentations by staff and students. Full time academic staff were published in ranked refereed journals, including seven journal manuscripts, one book chapter, and three monographs.

ALIGNMENT

Business Development Unit

The Deputy Dean participated in, contributed to, and hosted several webinars and panel discussions over the review period. A notable workshop was the FAO-UWI Regional Virtual Workshop on Bioremediation of Pesticide Contaminated Soils: Assessment and Management in March 2021. The BDU continued its partnership with Caribbean WaterNet and Capnet UNDP to produce two manuals and deliver training in Climate Resilience and Integrated Water Resources Management with support from the Global Water Partnership Caribbean (GWP-C)

University Field Station

The Field Station continued to partner with the Artificial Breeding Centre (ABC) to facilitate exchange of breeding bulls between the ABC and The UWI. They also acquired new livestock for expansion of livestock herds for teaching and research. COVID-19 restricted activities and initiatives, and due to financial constraints, artificial insemination services were limited which seriously impacted the Field Station's breeding programme. The Field station still provided technical assistance to local charities for the development and expansion of their agriculture initiatives. Continued upgrades of the UFS Abattoir to include a separate quality assurance certified poultry slaughter and processing facility for teaching and semi-

commercial activities are planned as well as funding to maintain aged and dilapidated facilities. Lack of funds to upgrade facilities to provide proper demonstration of modern farming techniques for students and visitors continued to be a major challenge.

Department of Geography

Dr Kegan Farrick collaborated with IAMovement on two projects: "The potential for vetiver as a companion species in quarry restoration," and "The role of vetiver in reducing runoff and improving infiltration and groundwater recharge". These projects are funded by the IDB and led by IAMovement. Training began for two MPhil students as part of this industry-research collaboration.

Dr Gabrielle Thongs led a regional mapathon that sought to map disaster related critical facilities in the Caribbean region. The event was a partnership involving the Department of Geography, the Office of Disaster Preparedness & Management (ODPM), the Caribbean Disaster Emergency Management Agency (CDEMA), and the Open Street map organisation.

The Department laid the groundwork for an MOU with the Office of Disaster Preparedness & Management (ODPM), and by extension the Ministry of National Security, and collaborated on the City Labs programme with the Department of Geomatics Engineering and Land Management. The latter is an EU funded programme which encourages problem-based learning.

Department of Food Production

Research activities were directed towards the development of solid and liquid formulations and generation of toxicology data for registration of the biopesticide, Biophyt, for the management of major diseases in vegetables. There is potential here for a commercially viable industry partnership.

There was collaboration and engagement with stakeholders: the Food & Agriculture Organization (FAO), Caribbean WaterNet,

CapNet UNDP, the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC), farmers, Ministries, and other governmental and non-governmental organisations and signed Letters of Agreement (LOAs) to the value of US\$98,690.00 during the reporting period. An active collaboration with the FAO resulted in three more LOAs amounting to US\$84,551.00 to be implemented in the forthcoming year, to raise awareness and capacity building in agricultural innovation; to create a case study on the impacts of climate change in the Caribbean; and to develop concept note guiding the contribution of adaptation fund to enhance climate resilience in SIDS in the Caribbean. A collaboration with the FAO on insect innovation for its use as animal diet and feed for aquaculture to improve food and nutrition security of the region is anticipated during this period.

Department of Agricultural Economics and Extension

One Instructor and the Head of Department continued advocacy for enhanced food and nutrition security in Trinidad & Tobago, and more support for the agricultural sector from the government and key stakeholders. This was done through newspaper articles, contributions to news articles, YouTube videos, pop-up markets and food drives. No activities were planned at the Departmental level, but all academic staff were encouraged to promote advocacy via the projects that they are involved in, and to use various tools to accomplish advocacy in this year. Three new LoA's were signed with input from staff of the DAEE, and there were enhanced academic research partnerships with global experts in the USA, Brazil, France, and Australia. Ongoing work to support research collaboration with the Ministry of Agriculture, Land and Fisheries, Trinidad & Tobago. The Department plans to enhance work with the Ministry of Agriculture via a new Food Security Project which builds on work previously done by the DAEE.

AGILITY

Business Development Unit

Online delivery of professional training and capacity building courses were done solely, and in partnership with CapNet UNDP, GWP-C and others. The BDU also offered professional short courses and project management services to private, public, and developmental stakeholders. There was extensive progress in developing a commercial scale composting facility at the UFS, which will enhance the quality and add value to existing waste to money initiatives. The BDU also developed and delivered a fully online Plant Quarantine Basics professional certificate.

University Field Station

The Field Station provided technical support and breeding stock to students to initiate livestock production. However, it was difficult to source disease-free livestock locally to maintain breeding stock. Supply of organically grown meat products to the public continued. Three new products for sale to the public were added. These were UWI branded goat milk, goat meat and pork hams.

Expansion of cattle herd occurred, and it is geared towards meat and milk production. Funding to acquire equipment and maintaining existing plant and machinery has been a challenge. The Field Station hosted staff training to improve technical skills of staff in slaughtering and meat processing. An MOU was developed with the School of Vet Medicine and The Field Station to ensure better learning outcomes for students. An RFID tagging system was acquired to maintain livestock records. New freezer equipment, and pasteurising machinery is planned.

Department of Geography

The Department provided human resources with the information regarding the hiring of a new lecturer. However, due to the current financial climate because of COVID-19, the position was never advertised. The Department is in the process of converting

Faculty of Food & Agriculture (cont'd)

all courses to a blended format, which will aid in the digital transformation of the campus. **Dr Thongs** completed the Professional Development course in Online Instruction and Technology Quest which is designed to improve online teaching and the development and delivery of online courses.

Department of Food Production

The Department's Agro-Environmental Services (AES) has commissioned its commercial testing services in a number of areas. These include soil and water quality testing; animal nutrition and feed analysis; and plant health diagnostics. The services are available to agro-processors, farmers, gardeners, industries, land managers, commercial nurseries, and environmental firms and agencies.

The Department developed OSH protocols to receive and process samples in accordance with Ministry of Health and Incident Management Team (IMT) guidelines. The onset of the COVID-19 pandemic disrupted plans to officially launch and begin operations in March 2021, in addition the Department was not able to offer its full-fledged services due to State of Emergency (SOE) and ongoing restrictions. Additional responsibilities for persons involved in the delivery of these services resulted in shortage of staff. The commercial testing services of Agro-Environmental Services (AES) will be extended to soil physical and chemical properties and plant tissue analyses, food safety and tissue culture services to stakeholders. The Department will also be applying to Human Resources for On-the-Job Trainees to come on board to be trained in delivery of these services.

Department of Agricultural Economics & Extension

The Department developed an online Google Drive filing system and ensured uninterrupted teaching via online platform – myeLearning. All projects were restructured to facilitate loss in physical travel to other territories to monitor field work.

There was limited oversight of field work, such as surveys conducted in St Kitts and Nevis, and Guyana. International visitors could not enter the country to do planned field work and this was a major challenge. A new filing system in Microsoft Teams, as well as a new Administrative, Technical & Service Staff (ATSS) leave calendar were to be finalised at the start of each academic year

Projected Activities 2021/2022

Exciting initiatives lined up for the next cycle include but are not limited to: the restructuring of key programmes to meet the interests and expectations of a modern student as well as the region's current and future needs; the development of new and relevant programmes, such as the Postgraduate Certificate in Pesticide Management, the Doctor of Plant Medicine programme, and new short-course type programmes to attract non-traditional students is a priority.

There are plans for the strategic commercialisation of the University Field Station. The registration, commercial production, and sale of Biophyt, a biological pesticide for the management of diseases in vegetables is also in train. The Faculty is also to engage in innovative research on insect rearing as an alternative feed source for animal nutrition and aquaculture to improve regional food and nutrition security.

Distinguished Visitors

Senator the Honourable Avinash Singh

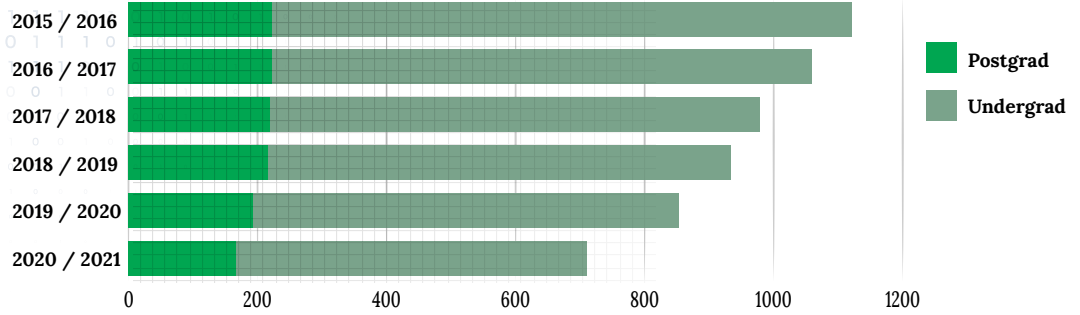
Minister in the Ministry of Agriculture, Land and Fisheries
Government of the Republic of Trinidad & Tobago

Dr Julia Kotzebue

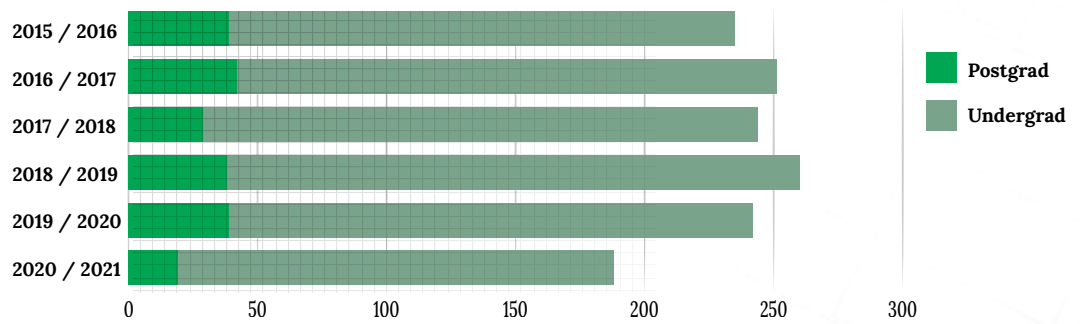
Assistant Professor of Sustainable and Integrated Spatial Development
Department of Economic and Social Geography, University of Hamburg, Germany

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Humanities & Education

Dean's Summary

In academic year 2020/2021, the Faculty of Humanities & Education (FHE) enhanced its remote operations due to the continuation of the Covid-19 pandemic safety protocols. The Faculty had a very active year and achieved significant accomplishments despite the challenges of the global pandemic. Processes were re-engineered to increase the efficiency of our remote processes and enhance our engagement with our students. Most of our activities were successfully conducted online and the Faculty was able to apply online modes to teaching and learning as well as our administrative processes. We were also able to continue operationalising The UWI's Triple-A Strategic Plan and its strategic themes of Access, Alignment and Agility. The FHE continued its focus on critical areas at the centre of our society's attempts to grapple with COVID-19 challenges. This was done through hosting several targeted workshops and webinars. Outreach and entrepreneurial activities that are directly aligned to the needs of the society were continued.

With the advent of the pandemic, we continued our focus on several areas. These included areas where there is a demand from students and external stakeholders; areas which are connected to national economic, social, and development needs, and areas where we think we can facilitate social innovation. We believe that we have a responsibility to lead social transformation in our society.



Dr Heather Cateau
Dean

Faculty of Humanities & Education (cont'd)

The FHE focussed on accessibility of our programmes and courses. The move to remote teaching forced academic staff to rethink all assessment approaches. As such, all courses were streamlined and offered virtually, and alternative assessments were configured to 100% coursework where possible. All students' systems and supports were moved to virtual spaces along with workshops and seminars which targeted areas critical to our society's attempts to grapple with COVID-19 challenges.

Several Units engaged in comprehensive Curriculum Review of their programmes and re-assessed and removed some pre-requisites. The FHE also focused on several initiatives which targeted areas critical to society's attempts to grapple with COVID-19 challenges. The Faculty focused on hosting CAPE and CSEC virtual seminars; on serving English language teacher training and refugee learning needs through the PG Dip TESOL Practicum; and hosted several webinars focussing on the Education system, particularly those areas affected by the pandemic.

The FHE saw that it had a particular responsibility to lead social transformation in our society and therefore focused on hosting vibrant symposiums, such as "Panchayat: The Mas(s) in We: (Re)claiming de People's Festival"; free Speech Language Pathology Services for children with speech impediments through the Department of Modern Languages and Linguistics' Speech Language Pathology Programme and Clinic; and continued operations of the Psychoeducational Diagnostic and Intervention Clinic (PEDIC).

FHE's staff also worked assiduously on several publications in the review period. These included five books, 24 chapters in books, 27 refereed articles, and four refereed conference proceedings. Additional scholarly activities include two creative works*, 11 productions, exhibitions, screenings, and films; three blogs, one online paper, one published interview, and one podcast.

*A creative work may be a novel, short fiction, calypso, poetry, or script.

Enrolment

The Faculty enrolled more than 1700 students in 2020/2021. Undergraduate enrolment slipped by 10% and postgraduate enrolment was down 17% compared to the previous academic year.

Graduation

The FHE awarded 59 undergraduate diplomas and certificates in 2020/2021, compared with 75 in 2019/2020. Of the 261 undergraduate degrees awarded in 2020/2021, 60 were First Class Honours degrees, up from 57. One hundred and twenty-three were awarded Upper Second-Class degrees, 64 obtained Lower Second Class, and 14 were awarded Pass degrees. Altogether, a total of 320 students graduated from FHE undergraduate programmes in 2020/2021.

The Faculty awarded 237 postgraduate diplomas and certificates in 2020/2021, compared with 32 awarded in 2019/2020. One hundred and eight postgraduate degrees were awarded, of which 103 were MFA/MA/MEd/MPhil degrees and 5 doctorates in 2020/2021. The 5 doctoral degrees were as follows: Winzy Adams- Education, Tuvaetasi Epenesa Esera- Education, Gersha Pierre- Education, Hannah Regis- Literatures in English, and Phyllis Rigaud- Education.

Noteworthy Achievements

The top Student in the FHE was Cathy- Jo Winchester who graduated with a Bachelor of Arts Degree in Spanish with Minor in Linguistics. In 2021, alumni Jian Hennings and Sophie Walcott's first feature film, *Grace and Saleem*, was an official selection in the 2021 Pan African Film & Arts Festival, "the largest black film festival" in the United States. Alumnus Amir Ali had his recent films selected and screened at several film festivals: *The Whisper of the Leaves / El Susurro de Las Hojas* showed at the Sheffield DocFest and Third Horizon; *Floating in the River of Time* was selected by Rastro in Brasil, Vancouver Latin American Film Festival, and got limited distribution in FilminLatino.

Research

Department of Creative and Festival Arts

Ms Deboleena Paul received a research grant from The UWI, St. Augustine School of Graduate Studies and Research to pursue a project "Film Form and Choreography Inside the Indian Classical and Folk Dance in Relation to Observation Documentary Film".

Department of History

Dr L. Bonate's book project - Correspondence between Northern Mozambican Chiefs and the Portuguese Administration at the End of the Nineteenth Century: Islam, the Slave Trade and the Wars of the 'Effective Occupation', is under contract with the British Academy, *Fontes Historiae Africanae* series/Oxford University Press. Dr Bonate also focused research on Cabo Delgado Insurgency: Islam, Youth and the 'Resource Curse' in Northern Mozambique; on Islamic Law and Matriliney in Mozambique, and on Muslim Women and Political Power in Pre-Colonial Mozambique.

Dr D. Mc Collin focused on topics during the 2020/2021 period such as the History of Healthcare in Trinidad & Tobago 1938-1962; the History of the Child Welfare League of Trinidad & Tobago; the History of the Overseas Nursing Association and the West Indies, and the History of Tobago.

Dr R. Noel did a comparative study of Form Six students and their eligibility to obtain national scholarships in Trinidad & Tobago. Dr Noel also focused his research on the Labours of the Black and White Odd Fellows Lodges in the United States and the Caribbean, *Venganza: The Origins of Resentment in the Conflict between the Republic of Haiti and the Dominican Republic*, and *Industriocism: The art and science of rejuvenating African culture and science for industrial applications*.

Dr A. Ramsay's research included, but was not limited to, the History of Fraternal Organisations (Caribbean, Fiji); Landships in Barbados; Museums (Caribbean, Pacific Islands), and Caribbean Cultural Expressions,

Heritage, Socio-Cultural Institutions.

Dr M. Toussaint focused on a range of topics, including but not limited to, African Foodways in the New World; Trinidad & Tobago and Venezuelan Carnivals: History, Similarities and Differences; The Credit Union Movement in Trinidad & Tobago. The Credit Union as a medium for first level entry of African-descended community into the formal market for loanable funds, and Political Leadership and Party Politics in Trinidad & Tobago in the Post-Independence Era. Dr Toussaint also conducted research on the Black Power Movement in Trinidad & Tobago: Issues of Class, Race, Gender, and Carnavalesque Culture in the Evolution of the Local Movement; the Baptist Faith in Trinidad & Tobago, and the Congress of Vienna and its Global Impact.

Department of Literary, Cultural and Communication Studies

Dr D.W. Brunton's current book project: *The Creole's Web - Creolité as a Digital Logic* constitutes the creole as the primary technological product of the global political economy of the Age of Empire created by language, collective memory and place – the Terra Incognita of the Americas; and offers a new understanding of the personal and social constructions afforded by the New World of online spaces as people continue to negotiate the intricacies of time, place, and interpellations in such unmapped or unknown spaces.

Dr S. Burke received a research grant to investigate the ecologies of Caribbean industries in culture for part of her single authored book for Routledge. The focus will be on the ways that creatives mediate state-led initiatives and institutions to enable the production of meanings as well as the creation of audiences, markets, and services within the Caribbean and its diaspora.

Dr E. Jackson continued research on literary representations of cosmopolitan identities, culminating in a forthcoming single-authored book *Global Childhoods and Cosmopolitan Identities in Literature*, which has already been accepted for publication by Brill.

Faculty of Humanities & Education (cont'd)

Dr H. Regis is currently conducting joint research with Associate Professor and anthropologist Anita Lundberg from James Cook University (Australia), Dr Eduardo de la Fuente, Research Fellow – University of Wollongong (Australia), and Dr John Agbonifo from Ousun State University–Environmentalist and Professor (Nigeria), on the specific topic of Tropical Landscapes with a focus on diseased/ravaged landscapes and therapeutic interventions through indigenous, syncretic religious and cultural pathways. This group was formed by Anita Lundberg to bring together international researchers (anthropologists, literary critics, and environmentalists) to produce innovative writings (intended for publication) on the ways in which tropical landscapes (Australia, Nigeria, and the Caribbean) can be theorised from a range of interdisciplinary approaches.

Dr Geraldine Skeete is currently focused on an ongoing book project on the written works of Paul Keens-Douglas.

LCCS' Collaborative Research with International Partners

Dr Vijay Maharaj took on an editorial role, working with V. S. Naipaul scholars internationally to produce the first of a series on V. S. Naipaul's work entitled *The First Naipaul World Epics: From The Mystic Masseur to An Area of Darkness and Beyond* (Bloomsbury 2021).

Dr Geraldine Skeete will publish a chapter on "Trinidad & Tobago" in *National* by Oxford University Press (UK). This is developed in conjunction with a web-based project at the Price Lab for Digital Humanities at the University of Pennsylvania, known as *Nationalising Epics*.

Professor Godfrey Steele, 2020, Peer Reviewer, 'How higher education institutions respond to COVID-19, build resilience through research and knowledge creation, and find

solutions to global challenges', *Researchers in Pursuit*, June-October 2020, one of 15 strands which are part of a wider research bootcamp being led by JET Education Services (South Africa-based) in collaboration with the Commonwealth Secretariat and the Association of Commonwealth Universities, UK.

Innovation & Entrepreneurial Projects

Social Innovation Lab

The Faculty established a relationship with OAMK Labs of the Oulu University of Applied Sciences that facilitates the development of projects from design to start-ups in multi-disciplinary teams. FHE continues to work towards the establishment of a multidisciplinary incubator/lab as an option in our programmes. In 2019 a joint application was made for funding to set up the Lab at the St. Augustine Campus. Erasmus grant funding was acquired for student and staff exchanges and professional learning. From January 14-17, 2020, the FHE hosted a Lab-based Learning Workshop for Cross-Campus participation with a Finnish team leading the sessions. At the end of the workshop, a multidisciplinary steering committee team was formed to establish a way to incorporate the learning from the workshop into a programme for the students.

The team planned a pilot project for the students in August of 2020; however, the COVID 19 Pandemic interrupted this plan. The project is therefore currently on hold. The FHE in partnership with Finland's 4Learning Ltd is preparing to offer a Social Entrepreneurship Lab programme, which will focus on fighting poverty. FHE is also collaborating with the Laventille East Port-of-Spain Development Company and the Government of the Republic of Trinidad & Tobago Community Recovery Development Committee to promote this programme.

Psychoeducational Diagnostic and Intervention Clinic (PEDIC)

PEDIC, based in the School of Education in the Faculty of Humanities & Education, continued to expand its client base, and increase its impact. The Children's Authority of Trinidad & Tobago awarded PEDIC a contract for the period 2019-2021 to provide psychoeducational and reading assessments and reading interventions. The Ministry of Education also awarded PEDIC contracts to train special education instructors and behavioural specialists (2019) and to conduct psychoeducational assessments for 40 applicants who were scheduled to write the Secondary Entrance Assessment (SEA) in 2020. PEDIC's In-School Reading Assessment and Intervention Project was awarded an RDI grant in April 2019. Although COVID-19 forced offices to close in March 2020 preventing in-person assessments, confidential preliminary intakes and feedback sessions resumed with clients via phone or Zoom.

Entrepreneurship

Centre for Language Learning (CLL)

In 2019, the CLL started to provide specialised foreign language training for commercial and other enterprises with Caribbean Airlines becoming the CLL's first client for commercial language services. The programme was suspended in March due to the COVID-19 pandemic. In 2020, Nestlé Ltd contracted the CLL to provide Spanish for Business Professionals in Trinidad & Tobago and Jamaica via remote delivery. For the UN Women's English as a Second Language (ESL) Project, the CLL was contracted to teach English to migrants via a remote delivery programme. The CLL continued to be a leading Foreign Language Testing Centre in the Caribbean, realising growth among the following entrepreneurial activities and services: IELTS Test Centre, Spanish Language Testing Centre, Japanese Language Proficiency Test.

Department of Creative and Festival Arts

Grants were received from the Caribbean Development Bank (CDB) Creative Industries Fund for two projects: the Festivals and Carnival Accelerator Project, and the Festivals and Tourism Accelerator Project, 2020-2021.

Department of History

The Unit was commissioned to research and write corporate business histories for the National Gas Company and The UWI Credit Union (2019-2021).

Strategic Review

ACCESS

Dean's Office

All teaching continued via remote delivery and continued in the 2020/2021 "Summer" semester using 100% coursework assessments. Journalism courses were introduced during this period.

Dean's Office (Film Unit)

Activities began to expand access/recruitment of regional/ international/part-time students via engagement with the University of Guyana and Instituto Cubano del Arte e Industria Cinematograficos and Escuela Internacional de Cine y Television en Cuba (EICTV). The course Film 1299 Production Tools was renamed FILM1399 Fundamentals of Film Production. This brought it into alignment with the course titled FILM 1820 Film Production Fundamentals offered in Level I of the BFA in Film Production at The UWI Mona, in fulfilment of best practice, and as a prerequisite to a proposed new Level II course titled Intermediate Film Practice. The title Production Tools is better suited towards a vocational or associate degree certification.

The Film Unit created the course FILM 2100 Intermediate Film Practice (Semester 1; Level 2). The fundamental aim of this newly approved course is to equip participants with

Faculty of Humanities & Education (cont'd)

technical and analytical competencies that foster confidence in film practice, research techniques, and methods in film production. Analytical skills will be developed through observation, critique, seminar presentations and teamwork. The pre-requisite was removed for the course FILM 3001 Sound & Visual Dynamics, opening the course to all University students. The course objectives were amended and approved, and now organised around major manifestations of formalistic narrative and experimental filmmaking. By looking closely at films that utilise these elements of sound and visual style in innovative ways, students will gain new insights into how sounds and visuals work in various genres of cinema, which will in turn help them to develop an analytical approach to reading films. This course will stimulate student creativity and allow them to apply new knowledge towards producing short experimental films working in groups.

Centre for Language Learning

The CLL continued remote delivery of all courses and expanded reach beyond Trinidad & Tobago with 46 individuals, not based in Trinidad & Tobago, participating in CLL courses during the period. In-course assessment was modified to better align itself with remote delivery.

At the Ministry's request, a second iteration of the introductory English for Medical Purposes course delivered for 30 newly recruited Cuban nurses. The five-day course was delivered remotely in July 2021 and represented a 273% increase in participant numbers in comparison to the 2020 cohort.

Remote delivery of Spanish for Specific Purposes (SSP) course was expanded as part of the Pan-American Development Foundation/UWI Open Hand Initiative. The CLL delivered SSP courses for 95 persons, an increase of 238%. Participants were professionals in National Security, First Response, Emergency Health and Disaster Response. UNICEF Eastern Caribbean Area also contracted the CLL to deliver an SSP course for Child Protection Officers drawn from various agencies. Four more courses commenced

in March 2021.

Department of History

The Department initiated the developmental phase of a "Business Unit" that would provide research services and skills to individuals and the business community. Services will include the research and writing of personal, community and business histories/biographies; research on topics or areas of interest as requested by clients; and providing historical information and context through interviews, seminars, workshops, and the organisation of documents and material. A new MA in Caribbean History and Diaspora was developed.

In Semester 2 2020/2021, the Department's CAPE and CSEC workshops went online. Sessions were pre-recorded and uploaded to the Department's YouTube channel and Facebook page. Students were able to post questions and receive responses from staff members.

Department of Modern Language & Linguistics

The Projects and Profile Team (PPT) was created by the Head of the Department of Modern Languages and Linguistics (DMLL) in September 2020 to enhance the profile of the DMLL locally, regionally, and internationally.

Department of Creative & Festival Arts (DCFA)

The DCFA continued to liaise with Admissions to facilitate staggered auditions of applicants to afford speedy processing of applicants to the Music programmes. This involved curriculum adjustments to facilitate late acceptances because of late release of CSEC and CAPE results.

The Department conducted a webinar presentation at the St. Vincent and the Grenadines Community College's Career and Leadership Seminars, August 19, 2020. The Unit also conducted a webinar presentation on "Career Opportunities, Education in Music, the Creative Arts Industry and

Entertainment Law” at the Music Career Guidance seminar for music students at St. George’s College, October 23, 2020. The Visual Arts Unit collaborated with The UWI Open Campus, using Open Campus’ 360° camera technology, to record the various stages of delivery of the course VART2032 Costume Fabrication II. The course lecturer and students were interviewed, and students’ work was showcased. The product is an immersive video package to be shared with the public. Given the pandemic context of social distancing and virtual engagement, this product serves as a model for connecting stakeholders with work done at the DCFA.

Department of Literary, Cultural and Communication Studies

The Department continued to engage various communities through the hosting of various online events. The 23rd Annual Campus Literature Week took place from March 23-26, 2021. It featured readings from various participants from all over the region and further afield and garnered a great deal of public interest as the online format allowed for more scheduled activities. On the final day, there was a live presentation by **Professor Emeritus Gordon Rohlehr** on his memoir: *Musings, Mazes, Muses, Margins*.

The Literatures in English (LIE) section commemorated the birthday of V.S. Naipaul on August 17, 2021 with activities that included televised interviews on the importance of the author’s work. Research on literary representations of cosmopolitan identities continued in preparation for inclusion in a forthcoming single-authored book *Global Childhoods and Cosmopolitan Identities in Literature*, which has already been accepted for publication by Brill.

School of Education

New programmes are forthcoming in reading literacy and school psychology. Individual courses from the Measurement, Evaluation and Assessment MEd are to be offered, and service offerings for The Psychoeducational Diagnostic and Intervention Clinic (PEDIC) are to be expanded. The Reading Clinic

continued assessments and interventions, under **Dr Paulson Skerit** and **Dr Sabrina McMillan Solomon**. The Family Development and Children’s Research Centre (FDCRC) will expand their Mindfulness programme with **Dr Korinne Louison**. Early screening and intervention processes were implemented by **Dr Chelseaia Charran**.

Research stimulated through research clusters within the SOE include

- Language, Literacy & Reading (LLR);
- Teachers, Teaching, Technology, & Learning (TTTL);
- Leadership, Curriculum & Policy Studies (LCPS);
- STEM/ STEAM/ STREAM/ STEM/ Science (SSSS);
- Inclusion & Confronting Barriers to Learning (ICBL);
- Equity, Citizenship & Social Justice (ECSJ), and
- Childhood Studies & Early Childhood Education (CSECE).

ALIGNMENT

Dean’s Office

The Faculty continued to adjust several of its core business processes which boosted productivity and saved cost. One measure was the decision to hold the major and routine meetings virtually, such as Faculty Board meetings, Assessment and Promotions meetings, general staff meetings, meetings with staff and students, Faculty Book meetings and more. The Faculty hosted a very vibrant and well received virtual symposium titled “Panchayat: The Mas(s) in We: (Re)claiming de People’s Festival “ on February 24-26, 2021.

Outreach is ongoing. MOUs and collaborations continued with universities internationally. The Faculty has a relationship with OAMK Labs of Oulu University in Finland and continues to work towards introducing a multidisciplinary incubator lab. The FHE also collaborated with the University of St. Andrews.

Faculty of Humanities & Education (cont'd)

Centre for Language Learning

The CLL signed an MOU with the Korea Foundation to provide a Visiting Lecturer, and to support teaching and cultural activities. Collaboration with the Embassy of Japan and the Japan Foundation comes in the form of a Japan Foundation grant for Continuous Professional Development of CLL Japanese language Tutors, and a third Annual Japanese Language Speech competition, which was held virtually in August 2020. The implementation of the Confucius Institute Headquarters mandate ensured a virtual Confucius Institute Day 2020 as well as a partnership formed with the Oxbridge International School to offer Mandarin classes as part of their core curriculum. Classes began in September 2020 and was offered to three class groups - Lower School, Middle School & Upper School.

Department of History

History Fest 2021 was held from Wednesday, March 24 – Friday, March 26. Given the current Covid 19 crisis, the theme of the event was "Positioning the Pandemic: Epidemics and Health in the Caribbean". The event comprised panel discussions and three roundtable discussions and, for the first time, was held entirely online.

The Department's social media presence increased tremendously over the last two years, especially in response to the move to online teaching since March 2020. Facebook, Instagram, and YouTube accounts were established, and these collectively served as a voice for the Department when face-to-face interaction with students and the wider public was severely constrained. In June 2020, the Department launched its Let's Talk History web series, a collection of 5-minute presentations on various topics in Caribbean History and contemporary issues. Ten episodes had been done as at the time of writing. In February 2021, CAPE and CSEC presentations were recorded virtually and incorporated into the Let's Talk History series.

A virtual Research and Arts Symposium was presented by the Faculty of Humanities and Education, February 24-26, 2021. Three members of staff - Drs Ramsay, Murray, and Noel recorded short videos for Sagikor's 2020 online Emancipation programme, and these were also uploaded to the Department's YouTube channel. Sagikor's Emancipation programme had recorded over 150,000 views by late 2021.

Department of Creative & Festival Arts (DCFA)

The Inter-American Development Bank (IADB) commissioned Arts in Action to do two Cybertheatre-in-Education (CTIE) workshops for the Bank's CHEER FAIR youth camp. Arts-in-Action won the opportunity to run a two-year project entitled "Beyond the Block", funded by the JB Memorial Trust II. Year one of the project would commence in September 2021. The DCFA Music Unit partnered with the National Gas Company (NGC) on a music scoring programme for NGC sponsored bands: Couva Joylanders, La Brea Nightingales, and Steel Xplosion.

Department of Literary, Cultural and Communication Studies

The Folklore Essay Writing Competition, in collaboration with the Faculty of Law, an initiative spearheaded by the FHE's Guild representative whose mission is, in part, to prioritize, stimulate, incentivise, and amplify programs for arts-based and creative workers, was hosted in June 2021. The Department continued to engage various communities by hosting online events. The 23rd Annual Campus Literature Week took place from March 23-26, 2021. It featured readings from participants from all over the region and further afield and garnered a great deal of public interest as the online format allowed for more scheduled activities. On the final day, there was a live presentation by **Professor Gordon Rohlehr** on his memoir: *Musings, Mazes, Muses, Margins*.

During the review period staff collaborated with international partners to undertake works on topics such as V.S. Naipaul Scholars on a global scale (Dr V. Maharaj); the Price Lab for Digital Humanities at the University of Pennsylvania (Dr G. Skeete); and South African based JET Education Services, Commonwealth Secretariat and the Association of Commonwealth Services (**Professor G. Steele**).

The Communication Studies Unit held an online Research Exposition where students submitted their projects via video format. This format will be followed again in 2022 and an online one-day conference will be held featuring the work of the students.

School of Education (SOE)

The SOE hosted public webinars such as, "Educating the Whole Child in Pandemic School Closure and Reopening", "Evidence-informed Education Policy: Post pandemic and beyond in Trinidad & Tobago", and "Gender and Failure at School; addressing the question of which boys and which girls?"

PEDIC also hosted webinars during Autism Awareness Month in collaboration with Khadine Ali, M.A., of Arc Behavioural Consulting and Allison Teelucksingh, MEd, of ABA and Me Behavioural Services. Other webinars were held on "Developing Successful Sleeping and Feeding Habits in Children with ASD", and "Managing Challenging Behaviours in Children with Autism" Spectrum".

The Family Development and Children's Research Centre (FDCRC) hosted their 2021 workshop series which included topics such as, "101 of Handwriting Skills", "Creating Teaching Resources using Indigenous Materials", "Power-Up with PowerPoint", and "The Project Approach for the Virtual Classroom". The Early Childhood Care and Education (ECCE) Ministry of Education held online Zoom events for Universal Children's Day, on topics such as Growing in STEM: From Early Childhood and Beyond, and COVID-19's Impact on ECCE Teachers.

The SOE presented a project proposal to Shell Ltd TT for a STREAM Centre and was shortlisted for several projects under the Caribbean Development Bank. The proposed project teams comprised staff from various campuses and the Caribbean Diaspora.

AGILITY

Centre for Language Learning

The Centre for Language Learning (CLL) offered multiple courses for Nestlé Trinidad and Nestlé Jamaica. These included Spanish for Business Professionals, Conversational Business Spanish, and individual Business Spanish classes. This led to a 125% increase in corporate services revenue. The CLL offered specialised commercial language services such as the IELTS (Test of English) - monthly and UK VI (UK Visa and Immigration), and the Certificate in Teaching English to Speakers of Other Languages (CELTA). Training for teaching English as a Second/ Foreign Language was planned for July 2021 and received positive interest including from the Ministry of Education, Youth Affairs and Sports, Montserrat. Rollout was postponed to the 2021/2022 academic year.

A webinar on Teaching Foreign Languages Remotely (Part 1) was facilitated by the UK-based Independent Consultant, Joe Dale. This training highlighted tools such as Flipgrid, Socrative, Quizizz and Google Forms and their applications in foreign language teaching. Teaching Foreign Languages Remotely (Part 2) was again facilitated by Joe Dale. This training highlighted technological resources and their applications in foreign language teaching. Attendees were given an opportunity to showcase their use of the tools presented in the first training session. Another webinar facilitated by **Mr Thom Kiddle** of NILE provided additional insight into the changes made to the Common European Framework of Reference (CEFR). It allowed attendees to refine their knowledge of the framework and their ability to categorize and define proficiency levels.

Faculty of Humanities & Education (cont'd)

Department of History

Staff participated in cross-campus seminars: three seminars per semester - one from each campus - strengthening the relationships among them. Staff members continued to establish an international virtual presence through podcasts, symposiums, seminars, public lectures, and other online forums. The Department also expanded its online presence by launching its website, Instagram page, Facebook presence, and YouTube channel. These online initiatives have greatly contributed to the ongoing digital transformation of the Department of History and, by extension, The UWI. The Quality Assurance Review process for the Department of History was initiated in November 2020. An initial review of the Department's performance was done and guidelines for the year-long process were given. The process will be completed in November 2021.

Department of Modern Language & Linguistics

The UG and PG programme workshop was hosted by the Projects and Profiles Team and took place on the Zoom platform on January 28, 2021. Through this workshop, administrative staff and new academic staff members gained a better understanding of the programmes offered by the DMLL. Despite the challenges of the pandemic, the Spanish Club held regular events via Microsoft Teams, displaying their passion for the Spanish language and maintaining the social connections among its students, as well as maintaining a regular social media presence.

Department of Creative & Festival Arts

Staff members attended and completed the Centre for Excellence in Teaching & Learning (CETL) training. Innovative course delivery in the Visual and Performing Arts were necessary to adapt to the new COVID-19 reality.

Department of Literary, Cultural and Communication Studies

Communication Studies had their Research Exposition online where students submitted their projects via video format. It is intended that this format will be followed again in 2022 and an online one-day conference will be held to showcase the work of the students.

School of Education

The SOE, through its Research & Outreach Unit coordinated an inhouse online Professional Development in Research Methods Miniseries, that was open to the wider UWI community. It comprised the following sessions: Mixed-Mode and Online Survey Administration; Analysis of Survey Data; Critical Realism as a Paradigmatic Framework for MMR; Data Visualisation, and Grounded Theory Methodologies.

Distinguished Visitors

Creative and Festival Arts

Neil Baptiste

Extempo Master, Abebele

Maria Bhola

Calypso Queen

Addelon "Banjela" Braveboy

Young King 2020

Alister Edwards

Cultural Practitioner

Llewellyn Mac Intosh

Veteran Calypsonian Short Pants

Heather MacIntosh

Calypso Queen

Nerukhi Ato Osei

Crossover artist

Emrold Phillip

People's Calypsonian Bro. Valentino

Hamidullah Wahid

Veteran Calypsonian

Film Unit

Rasheed Ali

Goldmine Film Distributor

Dr Jean Antoine-Dunne

Guest Lecture on the film Battleship Potemkin

Peter Page Bwire

(Kenyan Filmmaker)
Discussion on African Cinema

Nikita Cameron

Movie Towne Film Buyer

Emmerson George

Director Zesser the Movie and Soca Prison

Ty Hodges

Film Director in Los Angeles

Maria Luiza Khouri

Film Business Manager, Café Royal, Brazil

Professor Emerita Patricia Mohammed

Institute for Gender and Development Studies

Dr Marsha Pearce

Department of Creative & Festival Arts
UWI St. Augustine

Dr Margaret Westby

Lecturer of Dance Studies
University of Malta
Malta

Gian Franco Wilson

Senior Media and Entertainment Executive
Modern Languages and Linguistics

Dr Desrine Bogle,

Lecturer in French, Deputy Dean (Planning)

Faculty of Humanities & Education

The University of the West Indies,
Cave Hill Campus

Profesora María Susana Gonzalez,

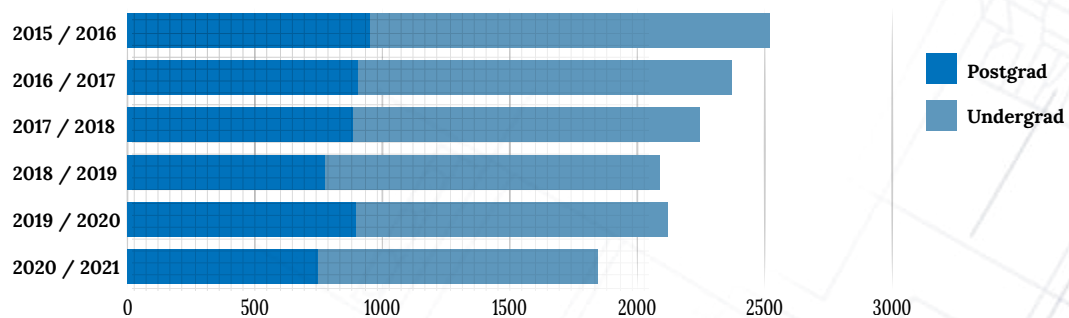
Encargada de la Cátedra de Inglés
Departamento de Lenguas Modernas
Facultad de Filosofía y Letras
Universidad de Buenos Aires, Argentina

Ana María Rocca,

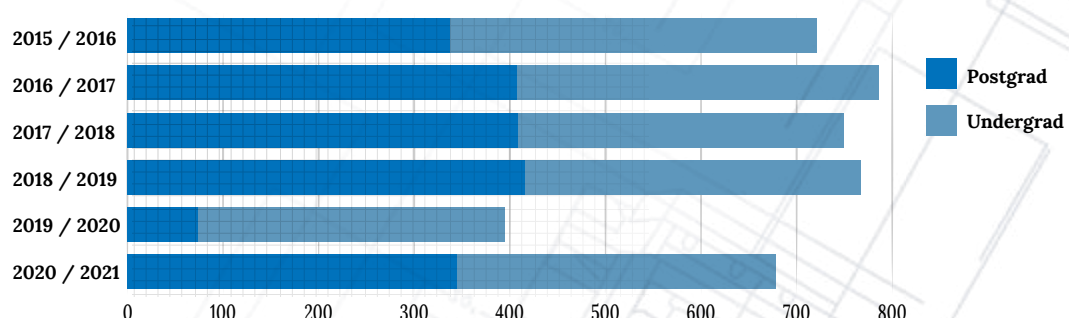
Instructor, Departamento de Lenguas Modernas, Facultad de Filosofía y Letras
Universidad de Buenos Aires, Argentina y
Miembro del Consejo-ARTESOL

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Law

Dean's Summary

The Faculty of Law continued its upward trajectory in terms of its performance. Even amidst the continuation of the COVID-19 crisis, the Faculty, with a small sized staff of 11 on average, performed well throughout the year at both undergraduate and postgraduate studies.

Through its activities and management of key issues the Faculty of Law's commitment was evident to The UWI Triple A strategy Access, Alignment and Agility. For example, research projects continued, undergraduate withdrawals continued to decline, and postgraduate student numbers rose again. Ongoing work continued through Faculty and personal research projects combined research and teaching projects such as the Faculty's International Human Rights Clinic (IHRC). Innovative assessments were introduced to examine students in a range of abilities as the Faculty had to further embrace online learning.

The Faculty of Law is grateful to John Jeremie, a Senior Lecturer and SC, for stepping in and acting as Dean for much of the remainder of the calendar year.



Professor Raphael Heffron
Dean

Faculty of Law (cont'd)

Enrolment

The Faculty of Law continued to be a much sought-after faculty, attracting applicants with high quality academic qualifications, including first-degree holders and national scholarship winners. The Faculty selects students on a competitive merit basis and maintains a cap on numbers. It also continued its policy of a quota for applicants from law enforcement and for mature students who may not otherwise meet the selection criteria.

Graduation

The number of graduates in the Faculty's undergraduate and postgraduate programs endured despite the challenges faced by COVID-19. Student dropouts on average continued a trajectory of declining.

Special Scholarship for Law Students

The Faculty's initiative to broaden and diversify access to legal education continues through the offering of the Makandal Daaga Scholarship in Law. Seen as an innovative scholarship, the Makandal Daaga Scholarship in Law is aimed at widening access to the undergraduate programme by targeting qualified applicants with a record of social activism.

Dean's Honour List (LLB)

The Dean's Honour List highlights students who have attained a GPA of 3.60 and above in Levels 1, 2, and 3 of each semester of the academic year continued to be a popular incentive for student performance.

Prize-Award Ceremony

The Faculty of Law was among the first Faculties to host its Prize Award ceremony virtually. The Faculty's Prize Award ceremony was held on December 3, 2020 and the featured speaker, Senior Counsel Sophia Chote presented a rich tapestry of learning, motivation, and inspiration for the graduating class. The event was a highlight of the calendar year for students and was conducted innovatively and online.

Research

EDF Human Rights Project

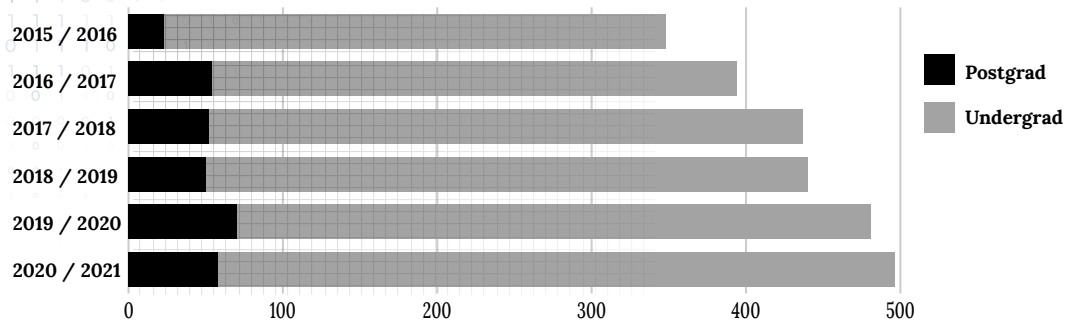
The Faculty continued to implement the project 'Strengthening Trinidad & Tobago's Human Rights Capacity through Innovative Legal Education', funded by the European Development Fund (EDF project) in the amount of TT\$1.5M and administered by the Ministry of Planning. The project manager is Keisha Garcia, and the Project Leader is **Professor Rose-Marie Antoine**. This 2-year project involves an innovative legal education concept integrating the Faculty's new International Human Rights Clinic and corresponding LLB course with NGOs, the state, faculty staff, students and practising attorneys within a dynamic program of research, advocacy, activism, litigation and outreach. All three UWI strategic goals are highlighted. Core subject areas under the project are Persons Deprived of Liberty (including refugees and Remand prisoners); Indigenous Peoples; Children's Rights; Disability Law; and Gender. Under this project, several successful and significant activities were undertaken which catalysed the faculty's research and innovation agenda, through activism and experimental learning. This work continued.

New EU Project

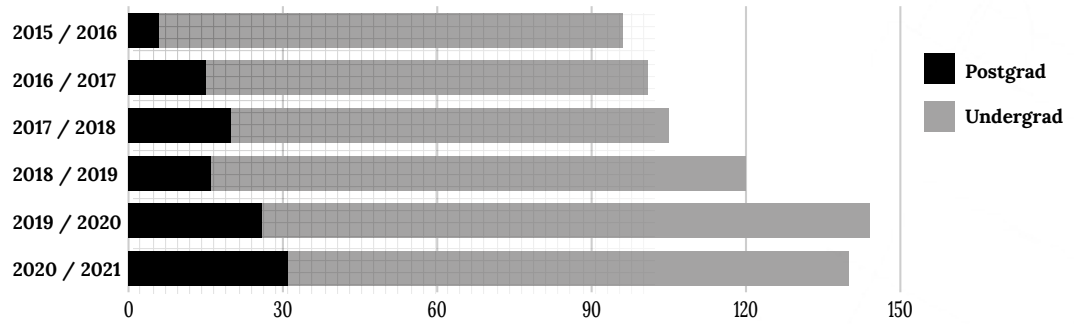
The Faculty was successful with its bid for the EU Project, worth TT 1.6M on "Remand Injustice with Special Emphasis on Domestic Violence in Murder Cases".

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Medical Sciences

Dean's Summary

The Faculty of Medical Sciences at the St. Augustine Campus currently delivers six major undergraduate disciplines: Dentistry, Medicine, Nursing, Optometry, Pharmacy, and Veterinary Medicine, run through five Schools, and offering 40 post-graduate programmes. The Faculty boasts about 3,000 students supported by 600 academic, administrative, technical staff and service staff, including 21 professors, and 109 lecturers. Since the introduction of the University's Triple "A" (Access, Alignment, and Agility) Strategy, the Faculty has strived aggressively to achieve the objectives stated in the current Strategic Plan. In the face of COVID-19, during the reporting year the Faculty demonstrated its perseverance - fulfilling its mission and goals undeterred.

The response to the COVID-19 pandemic resulted in restricted face-to-face activities especially for all undergraduate programmes in the Faculty. The FMS had to display its agility and invent new ways to deliver the curriculum and maintain the high standards expected of its graduates. The Faculty produced 485 graduates in both undergraduate and postgraduate programmes, holding exams according to the demand of the time, adhering to The UWI guidelines and national public health policy. Further, the FMS not only delivered its existing programmes successfully but also mount-



Professor Terence Seemungal
Dean

Faculty of Medical Sciences (cont'd)

ed new programmes such as a Certificate course in Infection Prevention and Control, District Health Visitor (DHV) and Vaccination Training programme, DM in Haematology and Blood Banking and DM in Anatomical Pathology, which meet the national and regional needs. Emulating the international standard for admission requirements, the Centre for Medical Sciences Education (CMSE) - the physical and conceptual centre of all medical education issues - piloted virtual Multiple Mini Interviews (MMI) for admission into MBBS programmes. These virtual MMI's involved 64 interviewers and 35 technical staff to interview 167 students. This system is to be rolled out to other programmes in the Faculty.

Though COVID 19 had a tremendous impact on research activity, staff continued to secure substantial research grants and to publish in high impact journals in their respective areas of interest.

The FMS continued to conduct polymerase chain reaction (PCR) testing for COVID-19 during the pandemic as the Holman Williams Laboratory was retained by the Government of Trinidad & Tobago as a testing site. The Caribbean Centre for Health Sciences Research and Development (CCHSRD) conducted research seminars, symposiums and conferences on COVID-19 with the support of experts from the Faculty and these played an immense role in educating the public in general and policy makers in particular in making informed, evidence-based decisions at different levels.

The quality of the programmes of the Faculty has been demonstrated through both internal and external quality assurance and accreditation exercises conducted at different times during the reported period. Three accredited programs – the Bachelor of Medicine and Bachelor of Surgery (MBBS), Doctor of Dental Surgery (DDS) and Doctor of Veterinary Medicine (DVM) programmes retained their accreditation status having submitted reports to CAAM-HP in a timely manner regardless of pandemic challenges.

Research

SCHOOL OF MEDICINE

Department of Pre-Clinical Sciences

COVID-19 Research

Genomic Surveillance for SARS-CoV-2 in the Caribbean

Investigators: **N. S. D. Sahadeo**, S. C. Hill, **V. Ramkissoon**, **A. Ramjag**, **A. Brown-Jordan**, **N. Mohammed**, R. Singh, S-M Nathaniel-Girdharrie, A. Hinds, N. Ramkissoon, N. Nandram, R. Parasram, L. Edgehill, L. Indar, A. Andrewin, R. Sealey-Thomas, P. McMillan, A. Oyinloye, K. George, I. Potter, J. LeeD., D. Johnson, S. Charles, N. Singh, J. Bisesor-McKenzie, H. Laws, S. Belmar-George, S. Keizer-Beache, S. Greenaway-Duberry, N. Ashwood, **J. E. Foster**, **S. Giddings**, **M. Ivey**, **K. Georges**, **R. Naidu**, **R. Haracksingh**, **J. Jayaraman**, **C. Chinnadurai**, **A. Ramsubhag**, **C. Oura**, O. G. Pybus, J. St. John, G. Gonzalez-Escobar, N. R. Faria, **C. V. F. Carrington**

Implemented local capacity for rapid whole genome sequencing for SARS-CoV-2 in December 2020 and performed genomic surveillance for SARS-CoV-2 variants of concern for 17 Caribbean countries on behalf of the Trinidad & Tobago Ministry of Health and the Caribbean Public Health Agency. Over 2000 samples were sequenced and the effectiveness of the project was demonstrated by its rapid detection, assessment, and reporting of the presence of one or more SARS-CoV-2 variants of concern (i.e., Alpha, Beta, Delta, and Gamma variants) in several CARPHA member countries. Results of this study informed public health policy including bolstered quarantine and border control decisions and communications regarding vaccines in several countries. Sequence data shared on GISAID contributed facilitates global research efforts aimed at combatting COVID-19.

A high throughput screening assay to identify inhibitory antibodies targeting alphavirus release

Investigators: **A. Ramjag**, S. Franz, J. Jin, K. Lu, S. Bakkour, **C.V.F. Carrington**, G. Simmons

CHIKV causes extensive human and economic damage, primarily due to acute fever and arthralgia and post-viral chronic joint pain/arthritis. Studies have demonstrated neutralizing antibodies (NABs) to be highly effective against alphavirus infection in animal models, both prophylactically and remedially. In this study we characterised antibody responses to CHIKV, developed a novel high-throughput screening assay for Nabs that block of CHIKV egress from infected cells and identified several antibodies that display potent activity. This assay developed and antibodies identified have implications for the development of prophylactics and therapeutics against CHIKV.

COVID-19 and its impact on mental health of the health care professionals of India

Investigators: **Nayak, B.S.**, Surapaneni, K., **Sahu, P.K.**, Bhoi, P., Dhananjay, K.V., Silambanan, S., Delphine, W., Silvia CR, Nagendra, K., Balachandra Naidu, M., **Maharaj, S.**

This cross-sectional web-based survey assessed the psychological impact on healthcare professionals during COVID-19 and determined the causative factors. Results based on 772 healthcare professionals in India aged ≥ 18 years found that 37.17%, 33.68% and 23.7% reported having anxiety, depression, and stress respectively. Being a female physician, older and sleeping less than 7 hours were associated with being more prone to psychological problems. Increased COVID-19 cases, high pressure, workload, and lack of training were the main reasons for the psychological problems among healthcare professionals. Results highlight the importance of implementing proper strategies in healthcare settings to reduce the burden of stress.

The Impact of Online Schooling Due to the Covid-19 Pandemic on the Mental and Socioeconomic Well-being of Parents and Guardians of Government Primary School Students in Trinidad & Tobago.

Investigators: **Nayak, B.S., Lee-Isidore, D., Carr, D., Fyzoudeen, D., Indoi D., Kemp, D., Mohan, D., Ramdeo, D., Ramkay, D.**

This study aimed to assess the effect of online schooling on the mental health of parents and guardians of primary school students, to determine the prevalence of mental health issues such as anxiety, depression and stress and the effect of the COVID-19 pandemic on financial security. Assessment was conducted online using the Depression, Anxiety and Stress scale (DASS-21) test distributed to randomly selected government schools within the Port of Spain district. Twenty eight percent (28%) of participants reported anxiety, 38% stress and 27% depression. The prevalence of anxiety, stress and depression was related to level of education, financial adjustments due to the pandemic, and convenience of online schooling. Literacy levels and technological skills of parents/guardians was associated with academic performance. Results suggest that while the convenience of online school temporarily benefited parents in protecting their children during the pandemic, there has been a decline in mental health due to financial and technological impediments.

An investigation into the impact of the COVID-19 pandemic on the mental health and the study habits of medical students of the University of the West Indies

Investigators: **Duncan, R., Dookieram, N., Edgecombe, K., Edwards, G., Ferguson, R., Fernander, L., Fernandez, A., Ferret, N., Nayak S.**

This retrospective, cross-sectional study investigated the psychological impact and associated factors on medical students (n =291) at The University of the West Indies, St. Augustine campus, Trinidad & Tobago

Faculty of Medical Sciences (cont'd)

during the COVID-19 pandemic via an online survey platform. Among participants, 56 % reported increased stress and anxiety, 82.8% experienced irregular sleeping habits and 76.3% reported a change in eating habits. Also, 67.4% studied less than 4 hrs. a day, 61.5% admitted to being less productive, 62.2% showed an inability to focus and avoid distractions in their study environment. This study highlights the need for supportive strategies (e.g., pandemic preparedness courses, online support forum) to assist students in effectively managing anxiety and depression during public health emergencies such as COVID-19.

COVID-19: Infectious Disease Molecular Epidemiology for Pathogen Control & Tracking (COVID-19 IMPACT)

Investigators: **N. S. D. Sahadeo**, S. C. Hill, **V. Ramkissoon**, **A. Ramjag**, **A. Brown-Jordan**, **N. Mohammed**, R. Singh, S-M Nathaniel-Girdharrie, A. Hinds, N. Ramkissoon, N. Nandram, R. Parasram, L. Edghill, L. Indar, A. Andrewin, R. Sealey-Thomas, P. McMillan, A. Oyinloye, K. George, I. Potter, J. LeeD., D. Johnson, S. Charles, N. Singh, J. Bisesor-McKenzie, H. Laws, S. Belmar-George, S. Keizer-Beache, S. Greenaway-Duberry, N. Ashwood, **J. E. Foster**, **S. Giddings**, **M. Ivey**, **K. Georges**, **R. Naidu**, **R. Haracksingh**, **J. Jayaraman**, **C. Chinnadurai**, **A. Ramsuhag**, **C. Oura**, O. G. Pybus, J. St. John, G. Gonzalez-Escobar, N. R. Faria, C. V. F. Carrington.

This UWI-led collaborative study aimed to establish local capacity for rapid generation of SARS-CoV-2 whole genomes in order that viral genomics and related molecular epidemiological approaches can be incorporated into the COVID-19 mitigation and control efforts of public health bodies in Trinidad & Tobago. Genome sequencing was implemented in Dec 2020 and the project continues to respond to request from public health bodies for answers to questions related to COVID-19 mitigation and control that can be addressed through virus whole genome sequencing, including routine screening for SARS-CoV-2 variants of concern for 17 Caribbean states which is ongoing.

Other Research

Characterisation of emerging viruses and protective immune responses against them in humans.

Investigators: **A. Ramjag**, G. Simmons, **C. V. F. Carrington**

Emerging viruses are becoming increasingly common. Recent examples include Dengue viruses, human immunodeficiency viruses, SARS coronavirus, H1N1 influenza, Chikungunya virus, Ebola virus, Zika virus and the novel coronavirus from Wuhan, China. This trend is expected to continue but it is difficult to predict when and where each emergence will occur, and previously unknown viruses of animals that adapt to and emerge into human populations (e.g., HIV) are impossible to predict. With each newly arrived virus there is need to rapidly characterise the virus and develop specific tests, vaccines, or therapeutics. Sensitive and specific diagnostics tests are required since most viral infections initially present as acute undifferentiated fevers that are clinically indistinguishable, and a significant proportion may be asymptomatic. This requires knowledge of the viruses' genetic structure and an understanding of the human immune response to the virus. The aim of this study is to detect and characterise emerging viruses associated with acute undifferentiated fevers and to characterise immune responses against them with a view to developing novel diagnostic tests, therapeutics, and vaccines.

An investigation of epidemiological, pathological and genetic predictors of breast cancer onset and outcomes in Trinidad.

Investigators: K. Badal, R. Haracksingh, J. E. Foster.

There is a paucity of information describing the genetic and other epidemiological factors driving the breast cancer (BC) burden in Trinidad & Tobago. Though studies have shown that geography and ethnicity are associated with higher incidence and mortality rates across Trinidad & Tobago, and the pres-

ence of three BC susceptibility genes – BRCA 1, BRCA 2 and PLAB2 – among women with breast cancer in Trinidad (10% penetrance), none have looked at the influence of these factors on BC survival. Prognostic tools are a part of BC patient management in more developed countries, aiding in the determination of more tailored treatment regimens for individual patients. Such tests have limited applicability in Trinidad & Tobago due to the unique and diverse multi-ethnic population. For this reason, there is need to investigate our population-specific predictors of disease outcome. This proposed study aims to fill this knowledge gap on genetic, epidemiological, and pathological factors affecting BC prognosis using biostatistical & genetic analyses through machine learning. A manuscript describing an epidemiological review of factors associated with outcomes for women with breast cancer receiving treatment at the hospital study site was published, and another manuscript on the use of machine learning to develop models to predict breast cancer patient outcomes is to follow.

Dietary modulation of gut microbiome and host gene expression across human evolution and the emergence of modern human disease.

Investigators: H. Singh, J. E. Foster, D. Ramdath, K. E. Nelson.

This study aims to investigate the interaction of dietary changes, gut microbiome, and disease phenotypes in an Afro-Trinidadian cohort. We will characterize the gut microbiome and metabolome of an industrialised human cohort historically susceptible to metabolic syndrome and chronic inflammation (i.e., Trinidad), which will be compared to other human populations representing diverse subsistence patterns, including hunter-gatherers and traditional agriculturalists from Central Africa, and an industrialised western human population. This project is in collaboration with the principal investigators at the J. Craig Venter Institute (U.S.A.) and has been granted U.S. N.I.H. funding. Sample collection is to be completed by the end of the 2021/2022 academic year.

Grants

Christine V. F. Carrington

- AHF Global Public Health Institute (2021). *Beyond COVID-19 IMPACT: Establishing a sustained capacity for genomic surveillance in Trinidad & Tobago.*
Role: Principal Investigator.
AHF provided a sequencing device (equipment) worth US\$59,659.00.
- Pan American Health Organisation (2021). *Support for establishment of a PAHO Reference Sequencing Laboratory (PAHO-RSL) of the COVID-19 Genomic Surveillance Regional Network at the UWI.*
Role: Principal Investigator and Coordinator of Laboratory.
PAHO provided personnel, reagents and supplies worth US\$213,797
- Trinidad & Tobago Ministry of Health (2021) *Establishing a sustained capacity for Genomic Surveillance for SARS-CoV-2 variants of concern and future emerging pathogens in Trinidad & Tobago.*
Role: Principal Investigator.
Grant worth TT\$500,000.00.
- UWI/TT Research Development Impact Fund (2020 – 2022). *COVID-19: “Infectious Disease Molecular Epidemiology for Pathogen Control & Tracking (COVID-19: IMPACT)”*
Role: Principal Investigator
Grant worth TT\$ 690, 000.00.

Department of Para-Clinical Sciences

Khan, Raveed

Site Principal Investigator: R. Maharaj.Q
Junior Research Faculty member of The Eastern Caribbean Health Outcomes Research Network (ECHORN). The Eastern Caribbean Health Outcomes Research Network (ECHORN) is a collaborative research study that examines the lifestyles, eating habits, and health behaviours associated with cancer, diabetes and heart disease in adult men and women living in the Eastern Caribbean.

Faculty of Medical Sciences (cont'd)

Umakanthan, Srikanth

Epidemiology, risk factors and histopathologic characteristics of the common cancers in Trinidad
(In progress).

Department of Clinical Medical Sciences

Department researchers collaborate with other Departments within the Faculty of Medical Sciences, other Faculties of The University of the West Indies and other universities, on a wide range of research activities. Research topics include dementia, aging and cognition, Chronic Obstructive Pulmonary Disease, Regional Non-Communicable Diseases Surveillance on obesity, hypertension and hyperlipidemia in children, and COVID-19.

Professor Ronan Ali

Monplaisir T, Teelucksingh S, Ali R, Nayak S – Evaluation of clinical and biochemical profiles of patients undergoing coronary angiography at a selected hospital in Trinidad. Heart failure Interventions in Black and Indian South Caribbean people -Utilisation Study - The HIBISCUS Project Group – a cross campus collaboration between St. Augustine and Cave Hill campuses of The UWI. Global Hearts Initiative – a hypertension control project being implemented across the Caribbean.

Ali R, Baboolal N, Teelucksingh S, Sakhamuei S et al.

DiSCoVID Cohort Study Trinidad & Tobago. Study on Disease Severity, Complications, and Outcomes in COVID-19 patients in Trinidad & Tobago. The severe acute respiratory syndrome coronavirus-2 (SARS CoV-2) infection is responsible for the current coronavirus disease 2019 (COVID-19) pandemic affecting nearly six million people worldwide to date. Infection with this virus is causing a broad clinical spectrum and varying outcomes. Locally there are now 117 cases of COVID-19 with 8 deaths and 108 recovered cases. We propose an observational cohort study of patients managed in Trinidad & Tobago

Health facilities for a SARS-CoV-2 infection. The study seeks to establish a database of all COVID -19 patients in Trinidad & Tobago, including their sociodemographic, clinical, biochemical, radiological characteristics, and disease severity, complications, and outcomes.

Dr Nelleen Baboolal

COVID-19 Psychiatric Morbidity (In progress). Screening for depressive symptoms in cardiovascular patients at a tertiary centre in Trinidad & Tobago: investigation of correlates in the SAD CAT study (Completed and published).

Seecheran N, Jagdeo C, Seecheran R, Seecheran V, Persad S, Peram L, Evans M, Edwards J, Thackoorcharan S, Davis B, Davis S, Dawkins B, Dayaram A, De Freitas M, Deonarinesingh T, Dhanai J, Didier C, Motilal S and Baboolal N.

Screening for depressive symptoms in cardiovascular patients at a tertiary centre in Trinidad & Tobago: investigation of correlates in the SAD CAT study. BMC Psychiatry 20, 498 (2020). <https://doi.org/10.1186/s12888-020-02909-1>

Dr Curt Bodkyn

Co-Caribbean Physician Lead / Country Lead on The Sick Kids International Caribbean initiative (SCI). The SickKids – Caribbean Collaboration in Cancer and Blood Disorders focuses on the development of research, education and training in Paediatric Oncology and blood disorders in the Caribbean. The main objective is to build capacity for the delivery of care for children with cancer and blood disorders in the Caribbean region. This is a 40M TT dollar (CAD\$8 million) philanthropic fund across six islands: Jamaica, Saint Lucia, St Vincent and the Grenadines, Bahamas, Barbados, and Trinidad & Tobago. Funds are administrated by The UWI.

SickKids Global/ Catalyst grant. Childhood Cancer Drug access in the Caribbean; A SickKids Caribbean Initiative. Country Principal Investigator

Childhood cancer outcomes in the English-speaking Caribbean (ESC) lag behind those achieved in most high-income countries (HICs), despite wide variation in per capita GDP and health system context in the region. Improved access to essential medicines for children with cancer and sickle cell disease (SCD) has been identified as a regional priority. This study looks at elucidating the challenges and solutions related to essential medicines access is integral to strengthening effective childhood cancer and SCD care strategies. Objectives: (i) identify the determinants of drug access; and (ii) determine the availability and cost of essential childhood cancer and SCD drugs in Trinidad & Tobago, The Bahamas, Barbados, and Jamaica.

American Society of Hematology (ASH), Children's International Consortium on Acute Leukaemia (C-ICAL). Country Principal Investigator

This study consortium developed a treatment protocol for children with ALL in the Caribbean to improve survival and reduce early tumour related deaths. In collaboration with the ASH, the protocol was developed with the limitation of the Caribbean setting in mind optimising treatment to international standards. Patients on study will be followed for 5 years to monitor outcomes and early tumour related deaths. The Caribbean countries involved are Trinidad & Tobago, Bahamas, Barbados, and Jamaica.

Dr Prithviraj Bahadursingh

Prevalence of Obesity in Children with Autism Spectrum Disorder

Dr Maritza Fernandes

Participating in Caribbean Collaborative Paediatric COVID Survey as investigator.

This multi-centre observational cohort study aims to determine the distribution and clinical course of COVID 19 disease among children 0-16 years old in the Caribbean. Objectives

are to describe epidemiological, clinical and laboratory data of children admitted to hospitals or government isolation facility with proven COVID-19 disease, identify atypical presentations, comorbidities, risk factors, complications, or reinfection among the COVID infected paediatric population, and describe any clinical outcomes 6 months after discharge.

Dr Stanley Giddings

Awarded the following extramural grant:

ISR-17-10114 (Gilead Investigator Sponsored Research grant) – Screening and linkage to care of hepatitis C in Trinidad & Tobago. TTD \$179,083.75. Approvals have been obtained to proceed with the study. Dr Giddings also received study material (USD \$12,318.00) from Abbott Laboratories to assist in conduct of the study.

Professor Gerard Hutchinson

Intrepid, Epidemiology of Psychosis in 3 Countries. Award of grant by Wellcome Trust

Khan K, Baboolal N, Reid S, Hutchinson G, Hypolite I, Ivey M, Malcolm T.

Psychological and Mental Health Impact of COVID-19 Pandemic (PSYMIC) in Trinidad & Tobago.

Dr Katija Khan

Dr Khan focused on a number of areas of research. These included: UWI Rapid Response Needs Assessment Survey on Psychosocial Impact of COVID-19 pandemic on staff and students; Assessing online readiness, psychosocial impact and career planning in medical students at UWI in light of COVID-19 pandemic; Caribbean attitudes towards suicide (A cross-cultural comparison of four Caribbean countries: two with high suicide rates (Trinidad & Tobago and Guyana) and two with low suicide rates (Barbados and Jamaica); and Predictors of recidivism in Trinidad & Tobago (A retrospective study analysing an existing database of persons admitted to the prison system to identify a psychological, social and demographic profile of recidivists in the criminal justice system). Stress, Coping and Burnout in Medical Students

Faculty of Medical Sciences (cont'd)

Dr Fidel Rampersad, Dr. Paramamand Maharaj

Review of radiological findings of COVID-19 patients.

Dr Sandra Reid

Public Mental Health Impact of COVID-19 in Trinidad & Tobago. (Principal Investigator) 2020. This is a 5-year study being done in collaboration with the Ministry of Health and the Centre for Mental Health, Swineburne University of Technology, Australia. It examines the mental health and psychological impact of COVID-19 on the population as the pandemic evolves, to guide interventions and reduce the public mental health burden of the pandemic.

National Alcohol Policy in Trinidad & Tobago. (Principal Investigator) 2014- Present. Following consultation on, and revision of the draft National Alcohol Policy of Trinidad & Tobago, this project seeks to gather the supporting evidence for the role of alcohol as a major public health hazard. The data will be used to lobby for the implementation of the national alcohol policy in Trinidad & Tobago.

Dr Sateesh Sakhamuri

Dr Sakhamuri's research focused on the following areas: Multinational SOLIDARITY clinical trial – Trinidad & Tobago for COVID-19 disease which is currently waiting for approvals.

Sleep Apnea Risk factors and Co-morbidities study in a Trinidad & Tobago cohort; Factors influencing the frequent healthcare resource utilisation among poorly controlled asthmatics; and Spirometry in specialty clinics and its standardisation.

Dr Sherry Sandy

Currently a protocol is being established to allow Trinidad & Tobago to partake in an international database for Huntington's Disease entitled Enroll-HD. This is in collaboration with University of the Montreal. A center-to-center movement disorder order program has been established between

Trinidad & Tobago that will allow international movement disorder experts to use telemedicine to assist in the management of local patients. A research protocol is being written to allow evaluation of this program. Ethical approval from the UWI Ethic board has been obtained for a study entitled, 'Virtual Epilepsy Clinic Trials in Outcomes Research-Trinidad' which proposes to evaluate the safety and efficacy of a body suit in an outpatient setting to detect seizure activity whilst the interpretation is read offsite.

Dr Naveen Seecheran

Cytochrome P-450 Polymorphism Epidemiology and Prevalence in Trinidad: The CYPHER TNT Study – REC approval obtained, intending to apply for CRP intramural grant. Research interest focuses on improving the management of coronary artery disease. Currently conducting phase 1 and 2a clinical trials evaluating platelet biology, thrombosis physiology, in addition to several epidemiologic studies. This multifaceted approach will assist in developing strategies for treating the cardiovascular disease spectrum and its devastating sequelae. Translational Research: Implementing phase I and II studies of pharmacotherapies aimed at platelet inhibition; Clinical Research: Developing new paradigms for individually tailored antithrombotic therapy.

Dr Virendra Singh

Dr Singh's research focused on areas such as gender bias in the referrals and treatment of patients with short stature; use of urine microalbuminuria testing to stratify the referrals diabetic retinopathy screening; clinical spectrum of COVID-19 in West Indian children.

Dr Singh also researched the effects of the "COVID-19 Stay at home mandate" on the body mass index (BMI) of children ages 5-18 years old being managed for obesity/overweight at the Paediatric Out-Patients' Clinic at the Eric Williams Medical Sciences Centre (EWMSC). Paediatric Eastern Caribbean Health Outcomes Research Network (P-ECHORN)

Cohort Wave 1; Intergenerational Factors that Contribute to Cardiovascular Risk in the Eastern Caribbean; and the effect of the duration of the final MBBS Medicine OSCE assessment on the performance of exiting medical students.

Professor Surujpal Teelucksingh

On October 1, 2020, Professor Teelucksingh signed, on behalf of the Helen Bhagwansingh Diabetes Education Research and Prevention Institute, a contract to provide consultancy services to the Health Sector of the GORTT. His team will be undertaking a 2-year project to advise on the screening and management of hyperglycemia in pregnancy. This contract was awarded in March 2020. The objectives of the contract are to improve the long- and short-term outcomes of pregnant women through universal screening for hyperglycaemia and the provision of timely, relevant, and appropriate health information and care using standardised protocols.

Grants

Lead investigator for Trinidad study site - American Society of Hematology (ASH), Children's International Consortium on Acute Leukaemia (C-ICAL). Development of a treatment protocol for children with ALL in the Caribbean to improve survival and reduce early tumour related deaths. Funding for data management of US\$ 24,000 over 3 years upon patient enrolment. Awarded 2019.

Department of Clinical Surgical Sciences

Grants

Urology

Dr S Persaud

Recipient of UWI Grant no. CRP.3. NOV19.26 to investigate the economic impact of kidney stones in Trinidad & Tobago (TTD\$15000). Extended to 2021. Recipient of A Royal College of England Grant to purchase laparoscopic skills simulator for UWI – 2021 (GBP2000)

Optometry

Dr K Ekemiri

Title: Prevalence and Associated Factors of Computer Vision Syndrome among Bankers in Trinidad. 2020 Research and Publication Fund Committee, 2020 Grant Award. Amount: 31,000 TTD

(5,000 USD) Grant ID: CRP.3. NOV19.08

SCHOOL OF PHARMACY

Patent -

Granted as Co-Investigator

Dr Rajiv Dahiya Malviya, R., N.K. Fuloria, S. Fuloria, V. Subramaniyan, D.U. Meenakshi, V.G. Vanteddu, **R. Dahiya**, S. Dahiya, K. Narra, P. Ganesan. Nanoparticle Formulation and Method for Preparation Thereof. Australian Patent, Application No. 2021101624, Patent category: Innovation, Filing & effective date of patent: March 29, 2021, Publication/Granting date: May 20, 2021; Expiry date: March 29, 2029. Available from: <http://pericles.ipaaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021101624> 📄

Patent -

Filed as Co-Investigator

Malviya, R., N.K. Fuloria, S. Fuloria, V. Subramaniyan, **R. Dahiya**, S. Chakravarthi, B. Karikalan, D. Hari Kumar, V. Kumarasamy, S.M. Palanisamy. An Air-Cooling Device with Smart Antimicrobial Features and Its Working Mechanism. Australian Patent, Application No. 2021103844, Patent category: Innovation, Filing & effective date of patent: July 3, 2021, Publication/Granting date: NA; Expiry date: NA. Available from: <http://pericles.ipaaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103844> 📄

Grants

Dr Rajiv Dahiya

As Co-Investigator on Research Project entitled 'Synthesis, Characterisation and Evaluation of Polyvinyl Alcohol Grafted Tamarind Seed Polysaccharide as Carrier for Nanodrug Delivery System', Principal Investigator: Dr. Neeraj Kumar Fuloria (Faculty of Pharmacy, AIMST University,

Faculty of Medical Sciences (cont'd)

Semeling, Bedong, Kedah, Malaysia); ARPG-21/01-01.30-IUC: Rs 2,00,000/- (US\$2700) under research and publication grant by Association of Pharmacy Professionals (India) (Jan 30, 2021).

As Co-Investigator on Research Project entitled 'Pharmacological Evaluation of Baicalin on Fluoride Induced Organ Toxicity in Experimental Animals', Principal Investigator: Dr. Gaurav Gupta (Suresh Gyan Vihar University, Jaipur, Rajasthan, India); ARPG-20/02-12.29-IUC: Rs 1,25,000/- (US\$1688) under research and publication grant by Association of Pharmacy Professionals (India) (Dec 29, 2020).

SCHOOL OF VETERINARY MEDICINE

Professor Abiodun Adesiyun

Prevalence and characteristics of Salmonella spp. isolated from broiler processing plants and retail outlets in Trinidad & Tobago

Dr Karla Georges

Molecular detection of rat lung worm (*Angiostrongylus cantonensis*) in the Giant African Snail (*Lissachatina fulica*) in Trinidad

Professor Christopher Oura

Economically important viral pathogens in swine populations of Trinidad & Tobago, West Indies.

Professor Abiodun Adesiyun

Prevalence and characteristics of Salmonella spp. isolated from broiler processing plants and retail outlets in Trinidad & Tobago.

Dr Roxanne Charles

Detection of Tick Species of Wild and Domestic Animals and their Pathogens of Veterinary and Public Health Significance in Trinidad & Tobago.

Dr Carla Phillips

Distribution, prevalence and characterisation of clinically important aquatic viruses and mycobacteria species in fish and shrimp throughout Trinidad & Tobago. October 2018-Present. CRP.5.OCT18.81 (TT\$35,000).

Dr Karla Georges

A study investigating the presence of the tick borne haemopathogens of dogs, cats, and humans in Five Caribbean Islands. Detection of Benzimidazole Resistance in Gastrointestinal Nematodes (GIN) affecting Sheep in Trinidad & Tobago using Real-Time Polymerase Chain Reaction (RT-PCR).

Professor Christopher Oura

Identification of Culicoides biting midge species and the viruses that they transmit within Trinidad & Tobago. The influence of host dynamics on the viral diversity of ticks in Trinidad.

Dr Candice Sant

Application of Reverse Line Blot Hybridisation to detect tick transmitted haemopathogens in the blood of cattle in Trinidad & Tobago

Dr Rod Suepaul

Infectious organisms and pathology of fauna of Trinidad (opossum and mongoose). A study of the specified aetiologies of pulmonary lesions identified at necropsy in sheep and goats in Trinidad.

Dr Jenelle Johnson

Evaluation of Aphrodisiac potential of "Caribbean Natural Viagra" Bois Bande (*Paranari campestris*) bark extract in male rats.

Dr Tennille Auguste

A comparison of emergency procedures performed in dogs and cats prior and during the 'stay-at-home' order for COVID-19 at the Small Animal Clinic, Veterinary Teaching Hospital, School of Veterinary Medicine, the University of the West Indies, Trinidad & Tobago. Retrospective study of canine splenic masses in the Small Animal Clinic, Veterinary Teaching Hospital, School of Veterinary Medicine, the University of the West Indies, Trinidad & Tobago.

Dr Jonathan White

CRP.3. MAR 18.25 Investigation of the causes of catastrophic breakdown resulting in immediate euthanasia and sudden death in

the thoroughbred racing population at the Arima Race Club (ARC), Trinidad (December 2018-present). Designed study and currently collecting data investigating catastrophic musculoskeletal injury in Jamaica (June 2018- present). Case Series: Location, surgical findings and prognosis of surgical lesions requiring arthroscopic treatment in the Caribbean Thoroughbred racing population (2016-present).

Caribbean Centre for Health Systems Research and Development (CCHSRD)

The Caribbean Centre for Health Systems Research and Development (CCHSRD) is a Campus Research Centre, at The University of The West Indies, St. Augustine. The Centre was established in April 2018 to provide a program of work in Health Policy and Systems Research (HPSR) to strengthen health systems in the Caribbean region.

Grants

Partnership for Evidence and Equity in Responsive Social Systems (PEERSS).

Budget: Supplemental Grant of TTD \$ 261,580.

Funding Agency: International Development Research Centre (IDRC)

Duration of Project: May 2020 to March 2023.

Supplemental grant received in May 2021 to support the conduct of activities related to evidence-informed policy making in Caribbean countries. The activities include working with countries to develop rapid syntheses (six 30-day rapid response briefs and three 3 or 10-day briefs) to address the urgent need for evidence by decisionmakers in the social sector in Trinidad & Tobago and at the CARICOM Secretariat. There will also be the hosting of stakeholder dialogues and citizens panels.

The Assessment of Clinical Trial Research Capacity in Trinidad & Tobago

Budget: \$3,900 USD

Funding Agency: Roche Pharmaceutical

Duration of Project: June 2021 to November 2021.

Details: Assessment of clinical trial research capacity in T&T and propose recommendations to strengthen capacity at the system level, organisational/individual level, and the community level.

Research Opportunities Resulting from COVID-19

Project

The Impact of COVID-19 Control Measures on Non-Communicable Disease Risk Factor and Metabolic Health: A Comparison of Three Caribbean Countries

CCHSRD is collaborating with UWI, Mona and UWI, Cave Hill to examine the effect of COVID-19 control measures on NCD risk factors (specifically dietary intake, physical activity, smoking, sleep, and other lifestyle practices) and metabolic health in the Caribbean (Jamaica, Trinidad & Tobago, and Barbados), and further assess the effect of specific legislative changes by socioeconomic status, demographic factors (gender and urban/rural status) as well as cross country comparisons.

Cross-Disciplinary Research Group Formed

The Faculty of Medical Sciences COVID-19 Research Group comprised researchers from the Faculty of Medical Sciences, CCHSRD, Faculty of Social Sciences, Sir Arthur Lewis Institute for Social and Economic Studies (SALISES) and Faculty of Engineering. The Group met fortnightly between April 2020 and April 2021. Over 15 projects have either resulted in publication in peer-reviewed journals, presentation at conferences, manuscripts being prepared, or data being collected or analysed.

Faculty of Medical Sciences (cont'd)

Strategic Review

ACCESS

School of Medicine

Department of Pre-Clinical Sciences

Ongoing increase in use of online resources and social media for teaching and other interactions with students and academic staff were a major achievement, as well as the facilitation of the January 2021 intake of MBBS students. Inadequate internet / Wi-Fi signal in certain areas of Mt. Hope Campus was one of the major challenges experienced during this time. Plans include new approaches for meeting Biochemistry, Physiology and Anatomy learning objectives traditionally addressed through face-to-face and / or large group laboratory practical exercises.

Department of Para-Clinical Sciences

The Department conducted skills lab training for the new Year 1 MBBS January intake for MDSC1405 and 1406. Two new courses are planned to be introduced for the 2021/2022 academic year. These are MDSC 2406- Research Project 1 and MDSC 2407 Introduction to Research Methods and Biostatistics. DM OSCE course in Family Medicine programme was approved in May/June 2021/2022. An online course in Evidence Based Medicine for all Doctor of Medicine (students at St Augustine was approved at the Faculty and Graduate Studies and Research level and is currently awaiting approval at the PGUMC.

The Department advertised two new programmes: DM Anatomical Pathology and DM Haematology and Blood Banking. However, the absence of involvement of the staff in the Clinical Diagnostic setting within the EWMSC affected the development of the postgraduate programmes. The Induction of Specialty Board for DM Pathology, and the creation of a Paraclinical Laboratory Manual were a few additional achievements for the Department. Accreditation of public laboratories in the Unit of Pathology/Microbiology,

as well as energising research and development collaboration between academics, technical support staff and postgraduate students is planned. There is also plans to develop a formal arrangement between the Department and the North Central Regional Health Authority (NCRHA) in order for students to fully benefit from greater exposure to clinical material.

Department of Clinical Medical Sciences

The Department was approved to offer two programmes - the Doctor of Medicine Oncology, and a Fellowship in Cardiovascular Medicine. All new and current staff members attended CETL and attend training yearly in their respective specialty areas. Face to face training has become limited due to the pandemic, however virtual training has been effective. Approval was received for the hiring of 2 full time lecturers in Radiology. Appraisal instrument for academic staff (clinical and teaching) was developed by the FMS and implemented by the DCMS.

School of Pharmacy

The School admitted a cohort of regional students into the Mix Mode Programme. These students are expected to improve their status from Certificates and Diplomas in Pharmacy to a BSc. The number of students taken into this programme was relatively small. The School is actively looking at changing courses in the programme into Massive Open Online Courses (MOOCs) and making them available to the public. The School of Pharmacy conducted its Quality Assurance Review and initiated the development of a proposal for an MPhil/PhD in Pharmaceutical Sciences. Currently, ethical approval is being sought for the dissemination of a survey to potential candidates for this programme. The planning and costing of the migration of the School of Pharmacy from the Eric Williams Medical Sciences Complex to the Couva Multi-Training Facility commenced. A proposal is being developed that addresses the migration and the activation of the laboratories at the site.

School of Veterinary Medicine

Curriculum mapping was the priority for the School during this period. Collating the data for the programme and aligning it with the competency based veterinary education framework however proved to be challenging.

School of Dentistry

All teaching and assessments continued online via hybrid delivery to accommodate the Ministry of Health's COVID-19 restrictions. Restrictions on face-to-face laboratory and clinical teaching and border closure preventing re-entry of our international students were our biggest challenges. Face-to-face teaching was stopped in March 2020 -December 2020 and April 2021 – August 2021. Also, clinical students were prevented from performing aerosol generating procedures (AGPs) since the start of the pandemic in March 2020. This required constant reorganising of curriculum delivery and re-engineering of timetables to accommodate the restrictions and delays brought about by the COVID-19 pandemic. New infection control protocols, new PPE requirements for the safe practise of dentistry, increased cost of and global shortages of PPE and dental materials were other challenges when clinics and labs finally reopened.

Revised curriculum incorporating delayed graduation dates have been approved by the Board of Undergraduate Studies (BUS). All international students were allowed re-entry due to negotiation with the Ministry of National Security and the work of **Dr Monica Davis**. The school is running full-service, face-to-face laboratory and clinical teaching and patient services following approval from the Ministry of Health to restart AGPs in November 2020.

School of Nursing

The curriculum for the BSc in Midwifery was submitted formal approval by the Board of Undergraduate Studies and the Finance & General Purposes Committee (F&GPC) and was approved. It is to be implemented in the

2022/2023 academic year. The first cohort for the Post Registration Diploma in Health Visiting commenced in 2020/2021 earning the Faculty an estimated \$2,500,000 from the GORTT and \$450,000 from full fee-paying students.

The Introduction to Critical Care Nursing course was implemented for three cohorts of students and delivered to participants in seven CARICOM countries, including Antigua and Barbuda, Barbados, Belize, Dominica, Guyana, Suriname and Trinidad & Tobago. A total of 85 participants were sponsored by PAHO/WHO. This programme was a collaboration between the UWI School of Nursing (UWISoN) and the Department of Clinical Medical and Clinical Surgical services. UWISoN collaborated with the Ministry of Health to facilitate a short course on vaccination and a series of training programmes on vaccination administration for inter-professionals including paramedics, dentists, veterinarians, and pharmacists. Another 100 registered nurses will be trained in the Introduction to Critical Care Nursing in early 2022.

ALIGNMENT

Department of Pre-Clinical Sciences

Staff were heavily engaged in COVID-19 related public service, public education, and outreach. **Dr Ramesh Rao** who participated in a public awareness seminar on COVID-19 at the Government Lower Primary School Tantradi, Udipi District, Karnataka, India, and **Professor Christine Carrington** who participated in a number of panels, committees and was the main speaker of webinars such as the "SAR-CoV-2the Virus and the Variants" Vaccine awareness webinar for the Trinidad & Tobago Publishers and Broadcasters Association in June 2021. B.S Nayak was involved in non-COVID health outreach such as guest lectures that explored Diabetes awareness, and Malnourishment and nutrition in India.

Faculty of Medical Sciences (cont'd)

Several staff members served on boards of local, regional, and international organisations, although many projects were interrupted and delayed by COVID-19 public health restrictions particularly where face-to-face interactions with study participants were necessary.

The Department undertook a major research project: COVID-19 IMPACT project implemented rapid whole genome sequencing for the first time in Trinidad & Tobago, thus enabling critical genomic surveillance for SARS-CoV-2 variants of concern for 17 Caribbean countries which resulted in detection of variants of concern and informed public health policy in several countries. This project was initiated with \$TT690,000 from The UWI-Trinidad & Tobago Research Development Impact Fund and attracted an additional TT\$2.4 million during the period under review. A major challenge with this project was the maintenance of a regular supply of reagents and consumables to meet the region's needs. This challenge was partially overcome with support from the Pan American Health Organisation, the Trinidad & Tobago Ministry of Health, and the Caribbean Public Health Agency. Initiatives for the 2021/2022 academic year include building capacity for pathogen genomic surveillance and infectious disease research to strengthen preparedness for infectious disease health emergencies in the Caribbean subregion, with additional support from Pan American Health Organisation (US\$500,000 / TT\$3,380,050) and UK Health Security Agency (New Variant Analysis Platform (£1.7 million / TT\$15.2 million).

The Department of Preclinical Sciences, UWI Laboratory was formally designated as a Pan American Health Organisation Reference Sequencing Laboratory (PAHO-RSL) of the COVID-19 Genomic Surveillance Regional Network.

Department of Para-Clinical Sciences

Mr Reinand Thompson, Paraclinical Science Lab Technician was enlisted to work with The UWI and the Trinidad Public Health Laboratory to support PCR testing for COVID-19. The Department loaned the Cepheid GeneXpert for COVID-19 testing to the Eric Williams Medical Sciences Centre (EWMSC). It is also being utilised for community service efforts. The testing of Chronic Myeloid Leukemia (CML) is being offered free of charge to the public through the NCRHA's clinic and specialist services from Paraclinical Sciences' staff. The Department plans to increase diagnostic testing, as well as develop a proposal for basic diagnostic support services in partnership with The UWI Health Services Unit.

- Collaborating Institutions / Academic Research Partnerships (AL2)
- Center for Infection and Immunity, Mailman School of Public Health, Columbia University, New York, USA
- College of Agriculture and Life Sciences, Virginia Tech, Virginia, USA.
- Department for Infectious Disease Epidemiology, Imperial College, London, UK
- Department of Entomology, Virginia Tech, USA
- Department of Microbiology and Immunology, University of Leuven - KU Leuven, Leuven, Belgium
- Department of Pathology and WHO Collaborating Center for Tropical Diseases, University of Texas Medical Branch, Galveston, TX, USA.
- Department of Zoology, University of Oxford, Oxford, UK.
- Global Virus Network, Baltimore, Maryland, United States
- Guelph Food Research Centre, Guelph, Ontario, Canada

- Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow, Glasgow, Scotland, UK
- Institute of Evolutionary Biology, University of Edinburgh, UK
- J. Craig Venter Institute, Maryland, U.S.A.
- Manipal Academy of Higher Education, Manipal, Karnataka, India
- Ministry of Agriculture, Land and Fisheries, National Animal Disease Centre, Centeno, Trinidad and Tobago
- Muniyal Institute of ayurvedic Sciences, Rajiv Gandhi Univesity, Manipal, Karnataka, India
- Pan American Health Organisation/World Health Organisation 10-12 Sweet Briar Road, St Clair, Port of Spain
- Ramachandra University of Health Sciences and Research Institute, Tamilnadu, India
- Royal Veterinary College, University of London, UK
- San Fernando General Hospital, San Fernando, Trinidad and Tobago
- Sangre Grande Hospital, Sangre Grande, Trinidad and Tobago
- Saveetha University of Health Sciences, Tamilnadu, India
- Subbaiah Institute of Medical Sciences, Karnataka, India
- The Pirbright Institute, Woking, UK
- Vitalant Research Institute (formerly Blood Systems Research Institute), San Francisco, USA
- School of Medicine

Department of Clinical Medical Sciences

The Child Health Unit, in collaboration with Vanderbilt Kennedy Centre, Treatment and Research Institute for Autism Spectrum Disorders (TRIAD) conducted a workshop on TELE-ASD-PEDS training. The TELE-ASD-PEDS tool has been developed by the TRIAD team to allow for ASD screening during a Telehealth consultation. TELE-ASD-PEDS training with Vanderbilt Kennedy Centre, Treatment and Research Institute for Autism Spectrum Disorders (TRIAD) took place on July 16, 2021 online.

The Department led the National Pulmonary Hypertension (PHT) Guidelines' development in collaboration with the NCRHA and Thoracic Society of Trinidad & Tobago (TSOTT). These Standard Operating Procedure ADAPTED Guidelines for the Management of Pulmonary Hypertension in Trinidad & Tobago 2021, were approved by national health authorities

Academic staff received extramural grants, funds from the Campus Research and Publication Fund and other sources such as the RDI Fund of the Government of Trinidad & Tobago. Several of the staff members have received grants for research.

Department of Clinical Surgical Science

Multiple press conferences and media presentations were held on behalf of the Ministry of Health and the North Central Regional Health Authority with regard to the COVID pandemic as well as multiple webinar presentations with the Trinidad & Tobago Emergency Medicine Association regarding Emergency Medicine in general and the COVID pandemic. The Department made an appearance on a local radio show "Lakeview Live" to discuss prostate cancer screening in March 2021. **Dr Fidel Rampersad** and Urology Senior Resident **Dr Aleem Backredee** participated in a "Urology" Continuing Medical Education (CME) session hosted by the Trinidad & Tobago Medical Association and UWI where they focused on kidney stones and erectile dysfunction.

Faculty of Medical Sciences (cont'd)

March 2021 also saw the production of a six-minute educational video on "Diet and Kidney Stones" for the Debe Public Library as part of its activities for World Kidney Day 2021. In addition to delivering public presentations on issues such as prostate cancer, faculty hosted monthly clinics dedicated to prostate cancer screening through the Trinidad & Tobago Family Planning Association Men's Health Clinic.

School of Pharmacy

The School of Pharmacy conducted outreach activities in commemoration of World Pharmacist Day, World Diabetes Day, and World AIDS Day. COVID-19 has proved challenging, and plans are underway to organise activities with the RHAs as soon as COVID cases decline. The School was granted an Australian Innovation Patent in external collaboration with staff as co-investigator. Financial challenges affected the development of collaborative courses with international universities.

School of Veterinary Medicine

COVID 19 testing was set up at the School of Veterinary Medicine. However, the exercise was challenged by occasional equipment failures. The School is focusing on obtaining a donation of a new, real-time PCR machine. The Teaching Assistant Webinar Series continued and there is hope for more teaching assistants to engage in more research in the upcoming academic year. Significant donations were received toward the welfare effort for St Vincent and the Grenadines. The School has become a collaborative member of the American Association of Veterinary Medical Colleges.

School of Nursing

The UWI School of Nursing (UWISoN) collaborated with the Diabetes Association of Trinidad & Tobago and Birmingham City University, England, for a Webinar on Diabetes, carded for November 22, 2020. The target audience was Nurses across the region as the theme focused on nurses in

diabetes care. The PAHO/WHO Collaborating Centres for Nursing and Midwifery, from 5 Universities, including The UWI School of Nursing, St Augustine hosted a webinar series of four sessions on Nursing Leadership in commemoration of International Year of the Nurse and Midwife. The other Universities were Dalhousie University, Canada; Columbia University, New York; Mc Masters University, Canada, and University of Illinois (in Chicago). The webinar series was held from June 4 to 25, 2021. The title of the series was 'Nurses, a Voice to Lead: Nursing Leadership in the COVID-19 era and Beyond'. Columbia University School of Nursing, New York collaborated with UWISoN, St Augustine to facilitate engagement of their two students to complete their clinical attachment virtually. This was a very successful virtual attachment. Discussions were initiated with UWISoN, Mona for the joint application for CAAM-HP accreditation.

AGILITY

School of Medicine

Department of Pre-Clinical Sciences

UWI St. Augustine Campus (Faculty of Medical Sciences) is now a Global Virus Network Affiliated Centre of Excellence. Research collaborations have been established with the :

Cross faculty relationships

- Department of Maths and Statistics, Faculty of Science and Technology
- Department of Chemical Engineering, Faculty of Engineering
- Department of Life Sciences, Faculty of Science and Technology

Cross Departmental (Intra Faculty) relationships

- Department of Para-clinical Sciences
- Department of Basic Veterinary Sciences, School of Veterinary Medicine
- Department of Clinical Surgical Sciences, School of Medicine

- Department of Clinical Medical Sciences, School of Medicine
- School of Dentistry
- School of Pharmacy

Department of Para-Clinical Sciences

The Department was able to reduce waste and focus on green energy/automation and the digitisation of processes. The Department is strategically strengthening collaboration with Public Health Centers, as well as engaging in lobbying and/or development of MOUs with international markets. A 100% online postgraduate course in Evidence-Based Medicine (which can be offered externally for income generation once final approval given) will also be created.

Department of Clinical Medical Sciences

Dr Curt Bodkyn collaborated with the Sick Kids International Caribbean initiative (SCI) which focuses on the development of research, education and training in Paediatric Oncology and blood disorders in the Caribbean. Benefits to the University of the West Indies, St Augustine Campus include the enhancement of UWI Telehealth unit, Mount Hope, Trinidad. This Unit supports teaching for Paediatric DM residents and nursing students; and development of the post registration programme for Paediatric Oncology Nursing

Department of Clinical Surgical Science

Despite the challenges of COVID-19 and a reduced patient capacity, The UWI Optometry Clinic still generated TT\$148,350 in income for the academic year 2020/2021.

School of Pharmacy

The School successfully delivered training in Chemotherapy mixing to the Ministry of Health. It is exploring the possibility of offering a pharmaco-economics course in partnership with the Ministry.

School of Veterinary Medicine

An FAO consultancy letter of agreement (LoA) was signed. Current initiatives include collaboration with Public Health Inspectors to fine-tune an inspector's manual.

The major outcomes of the project "The Promotion of Food Safety and Meat Hygiene in the Poultry Cottage Industry in Trinidad & Tobago" are to promote food safety within the sector, by providing training in food safety to small and medium-scaled poultry processing establishments. The project aims to empower this sector to play a lead role in ensuring the safety and wholesomeness of poultry sold to consumers. The project will focus on Central Trinidad as this area was reported to have a large concentration of persons operating pluck shops.

School of Dentistry

The implementation committee for the School of Dentistry Business Plan for Financial Solvency was appointed. The capital investment required to implement this business plan has been delayed. The School is examining short term initiatives to increase its income through the development of short courses and increasing its clinic income.

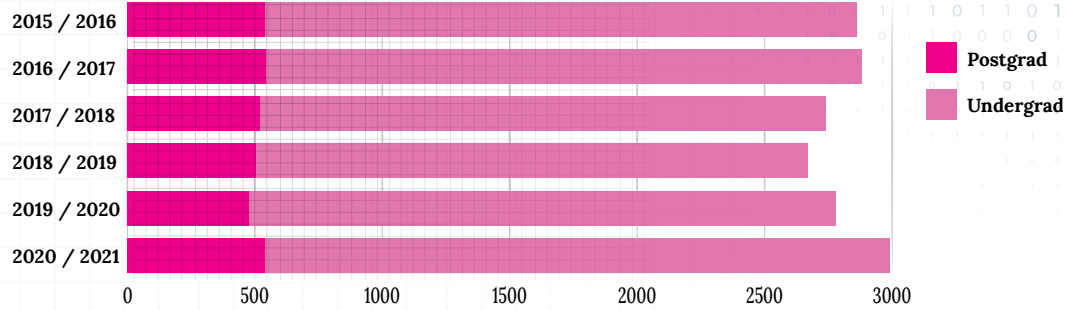
School of Nursing

UWISO_N developed the BSc Midwifery which is a self-financing programme which targets the CARICOM territories. The current MSc_N programmes were revised to expand the offerings from two to four programmes including Nursing Education, Administration, Oncology and Community Health Nursing.

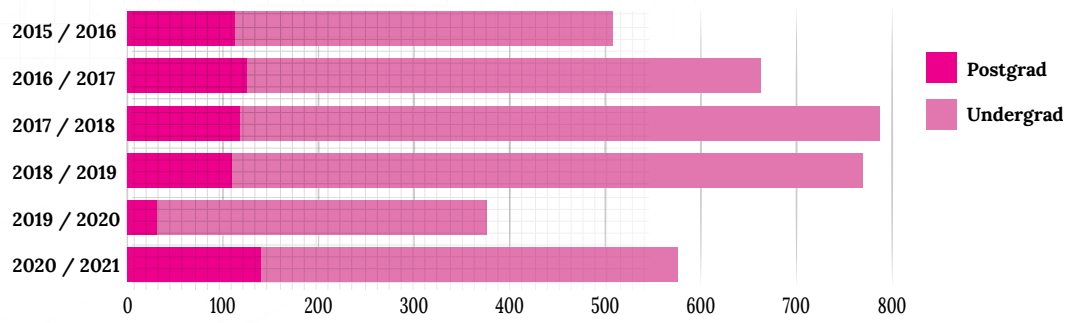
Faculty of Medical Sciences (cont'd)

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Science & Technology

Dean's Summary

Like many institutions The UWI, and by extension, the Faculty of Science and Technology grappled with the financial effects of the COVID 19 pandemic. Staff continued to respond to the demands of the Covid-19 pandemic with all undergraduate courses being taught in the virtual space save for some limited in-person laboratory classes being conducted in Semester 2 of 2020/2021. There was full cooperation of the academic staff, ensuring that all lectures and tutorials were recorded to assist students who may have experienced accessibility issues. The Faculty responded with various measures to improve teaching and learning, as well as to mitigate the impact of COVID-19. Challenges experienced with research due to the COVID-19 pandemic persisted, including a second lockdown of the country and campus in May 2021, which made access to research labs and research facilities challenging once again, resulting in delays in experimental work and reduced productivity. Issues of internet connectivity at home for some students were also one of the major issues.

The Faculty saw a number of areas of success during the period under review. These included the upgrade of Chemistry Facilities, the program for major refurbishment of the undergraduate teaching laboratories (located in Chemistry Building C1) to modern industry standards was advanced to a completed architectural design for the support services annex.



Dr Brian N. Cockburn
Dean

Faculty of Science & Technology (cont'd)

The 2nd edition of the Trinidad & Tobago Chemistry Olympiad (TTCO) was conducted in 2020/2021. For Round 2, four students were selected to represent Trinidad & Tobago at the 2021 International Chemistry Olympiad (IChO) in July. The new MPhil/PhD programme in Renewable Energy Technology was approved and shall be offered from September 2021. A major review of the Chemistry Curriculum is near completion, including incorporation of all the major recommendations of the Quality Assurance Audit of 2020. The DCIT teamed up with the RedHat Academy after the Campus signed an Agreement permitting the Department to use RedHat Cloud Infrastructure to provide access to cutting-edge technology to its students. The Department of Mathematics and Statistics, with support from the Dean, hosted the Annual UWI MATH Fair on 12th March 2021 with the theme, "Relevance of Math in a Pandemic". From May to August 2021, the DCIT safely maintained its Internship Programme in the face of increasing COVID-19 infection numbers during a national lockdown. Thirty-five (35) students took up paid Internships across 10 companies.

COVID-19 has taught us that agility is essential, as the global picture is constantly changing and requiring adjustments. The Faculty continues to anticipate and address the challenges innovatively but also in keeping with our extensive quality assurance systems. The health, safety and well-being of our students and staff continue to be our highest priorities in line with our mandate as major stakeholders in higher education.

Enrolment

Undergraduate

In 2020/2021, the FST welcomed 502 new undergraduates compared with 656 in 2019/2020. Our Pre-Science (N1) programme attracted 299 new students compared to 383 in 2019/2020. New postgraduate intake increased by 28% from 100 in 2019/2020 to 128 in 2020/2021. There was a 3% increase in the number of undergraduate students with 2270 in 2020/2021 compared with 2194 in 2019/2020.

Postgraduate

Postgraduate enrolment increased from 447 in 2019/2020 to 494 in 2020/2021 (11% increase). The total student number in the FST in 2020/2021 was 3038, retaining our place as the second largest faculty at St Augustine by student numbers. In some programmes, prospective candidates requested a deferral as the pandemic hindered their ability to pay their tuition fees.

Outstanding Students

Department of Chemistry

The most outstanding undergraduate student in Chemistry for 2020/2021 was Kairel Edwards, a regional student from St. Vincent and the Grenadines. She was awarded the Southern Systems Limited Prize for the best graduating students in Chemistry for 2020/2021. Ms Edwards also won the Massy Gas Products Trinidad Ltd. Prize for the best Year III performance in Chemistry. Shenece Malcolm won the prize for the Most Outstanding Student Performance in the MSc Occupational and Environmental Safety and Health Programme for 2020/2021. She graduated with distinction.

The Atlantic LNG Company of Trinidad & Tobago provided its first scholarship to the MSc OESH programme in 2017, in honour of their deceased Vice President, **Mr Henley Harewood**. For the academic year 2020/2021, the company awarded two of the OESH

students, with half of their tuition (after GATE) and all their compulsory fees. The recipients were Kylieena Pantin and Cardiss Mark – Santos.

Department of Computing & Information Technology

Arif Mohammed was awarded the IBM World Trade Prize for the Best Year I Performance in Computer Science, and Saeed Badree was awarded the Head of Department Prize for the Best Year I Performance in Information - Technology. The Tucker Energy Services Holdings Ltd. Prize went to Justin Baldeosingh for the Best Year II Performance in Computer Science, and the RBC Ltd Prize went to Lauryn Govia for the Best Year II Performance in Information Technology.

Prizes for Year three included the award of the FUJITSU Caribbean (Trinidad) Ltd. Prize to Kumar Etwaroo for the Best Year III Performance in Computer Science; the Atlantic Co. of Trinidad & Tobago Prize for the Most Outstanding Overall Graduate, and the Dr Margaret Bernard Medullan Award Sponsored by Medullan Inc. for the Graduate in Computer Science with the Highest GPA. The Head of Department Prize went to Orrin Carlton Joseph for the Best Year III Performance in Information Technology.

The Teleios Systems Ltd. Prize was awarded to Postgraduate student Lurlyn Maharaj for the Best MSc Research Project in Computer Science.

Department of Life Sciences

A number of prizes were awarded to students of the Department of Life Sciences.

The Republic Bank Limited Prize for Best Level I Performance in Biology: Jadaa Small,

Khadina Mohammed

The Asa Wright Nature Centre - Julian Duncan Prize for Best Level I Performance in Environmental Sciences: La Elena Roche

The Bryden PI Limited Prize for Best Level II Performance in Biochemistry: Triven Jokhoo

The Massy Group Prize for Best Level II Performance in Biology: Jacob Whiby

The Asa Wright Nature Centre - Thomas Carr Prize for Best Level II Performance in Environmental Science: Mikella Hosein

The Special Department Prize for Best Level III Performance in Biochemistry: Shania Yip Ying

The Massy Group Prize for Best Level III Performance in Biology, The Professor Dave Chadee Prize for Best Performance in the Ecology & Environmental Biology Specialisation, and The Institute of Marine Affairs Prize for Best Performance in the Marine Biology Specialisation: Maya Ribeiro

The Asa Wright Nature Centre – Ian Lambie Prize for Best Level III Performance in Environmental Sciences: Shenelle Rattan

The St. Augustine Medical Laboratory Prize for Best Performance in the Biotechnology Specialisation and The St. Augustine Medical Laboratory Prize for Best Performance in the Microbiology Specialisation: Uddesh Sahadeo

The Trinidad & Tobago Field Naturalists' Club, Dr Elisha Tikasingh Prize for Best Performance in the Zoology Specialisation and The Environment Management Authority (EMA) Prize for Best Research Project - Zoology: Kory Puckerin

The Professor E.J. Duncan Prize for Best Research Project - Plant Science: Christina Baillie

The Julian Kenny Prize in Natural History for a Final Year Student Majoring in a Life Science Discipline and Displaying a Strong Interest in Natural History: Marie-Elise Maingot

Faculty of Science & Technology (cont'd)

Department of Mathematics & Statistics

The Department was pleased to learn that one of its alumni, Ms Toni-Marie Bobart, (Class of 2015), is the first graduate of the BSc Actuarial Science programme to become a Fellow of the Society of Actuaries in July 2021. Members of the current undergraduate class received the following awards for the 2020/2021 academic year.

The Powergen Prize (Awarded for the best Year I performance in Mathematics): Zainab Hanif

The Guardian Life of Trinidad & Tobago Prize (Awarded for the best Year II performance in Mathematics): Joshua Davis

The TATIL Group Prize – (Awarded for the best Year III performance in Mathematics), and The Harold Ramkissoon Prize (Awarded for the best Year II and Year III performance in Mathematics): Joshua Ramjattan

The Winston A. Richards Prize in Statistics (Awarded for the best Year II and Year III performance in Statistics): Stephan Akai

The Professor Sam Broverman Prize for Mathematics of Finance (Awarded to the Year II Actuarial Science student with the highest average mark for the courses - MATH 2211: Mathematics for Finance I; MATH 2212: Mathematics for Finance II), and Bankers Association of Trinidad & Tobago (BATT) Prize (Awarded for the best Year II performance in Actuarial Science): Nicholas Maraj

Subba Rao Gunakala Prize (Awarded for the Best Academic Performance in the Year I Actuarial Science): Lara Lalla

The Robin Antoine Prize (Awarded for the Best Year III Performance in the Actuarial Science programme): Shastri Singh Doodnath

The Rosemarie Mohais MSc Mathematics Prize (Awarded to the Best MSc Mathematics graduate for the academic year): Vikash Ramcharitar

Department of Physics

The Head of Department Prize (Awarded for the best overall Year I performance in ALL Level 1 Physics CORE courses): Prithivi D. Dharamdass, and (Awarded for the best performance in the Physics Major Research Project): Dillon Nowrang

The Azad W. Harripaul Prize (Awarded to the student with the highest marks for the course Bioengineering): Daena M. Boodoo

Ansa Coatings Limited Prize (Awarded for the best Year II performance in Physics Level II courses (PHYS 2150, PHYS 2151, PHYS 2152, PHYS 2153 and PHYS 2155): Kaira D. Paul

The P.C.S. Nitrogen Prize (Awarded for the best Year II performance in Materials Science (PHYS 2165): Daena M. Boodoo

The Bruno Mitchell Prize (Awarded for the best performance in Astrophysics course), and Diagnostic Nuclear Medicine Ltd Prize (Awarded to the most outstanding student in Introduction to Medical Physics): Ulrika A. Sutherland

The Frederick Ignatius Campayne Prize (Awarded for best performance in Quantum Mechanics): Ameerah S. Ali

THE AA Laquis Prize (Awarded to the student with the highest overall mark in BMET 3000 for the academic year on the condition that the mark is greater than 74 percent): Karishma K. Persad

Graduation

The Faculty is particularly proud of its graduate output at the advanced level. Two PhD students graduated from the Department of Chemistry in 2020/2021, namely Zeyar Min and Afraz Subratti. Two MPhil students, Crystal Perreira and Riad Hosein also graduated. The MSc Occupational and Environmental Safety and Health programme graduated 38 students in 2020/2021. Only two students were able to complete their research projects for 2019/2020; the other students were delayed with the start and completion of their projects due to the Covid-19 pandemic.

At the Department of Mathematics & Statistics one student graduated with an MPhil in Mathematics, there were three from the MSc Mathematics programme, eight from the MSc Statistics programme, and one student was awarded a PhD in Mathematics.

The Department of Physics awarded one PhD, one MPhil, 13 MSc degrees in Renewable Energy Technology, and four in the MSc Biomedical Physics.

Teaching & Learning

Department of Chemistry

Over 27 lab videos were prepared to supplement the virtual delivery of four of the Department's lab courses. A detailed plan for the return of limited face-to-face lab sessions under COVID-19 restrictions was prepared in Semester I 2020/2021, but actual face-to-face lab sessions were not implemented until Semester 2 and during the third semester (summer). Five undergraduate lab courses returned to face-to-face format under COVID-19 restrictions. Research work by PG students continued on a limited basis and under COVID-19 restrictions in both Semesters I and II of 2020/2021. From Semester I of the 2020/2021 academic year, the Chemistry Help Desk (CHD) transitioned its services from face-to-face to fully online via the myeLearning platform and Blackboard Collaborate. This was facil-

itated by the creation of a course shell fully designated to this support system. Students can freely self-enrol in the course (prominently placed and accessible under the section "Useful Links" on the myeLearning dashboard) and consult with academic staff virtually at the times scheduled.

Department of Life Sciences

The Department of Life Sciences, along with the Faculty and the rest of the University moved to delivering materials both for lectures and labs in the online space. Some courses were moved to 100% coursework. All lectures and tutorials were held virtually via Black Board Collaborate (BBC) and simultaneously recorded. All course materials including Lectures, labs and Tutorials remain accessible on myeLearning. All lecturers also contacted their students in this forum. Practical lab sessions traditionally designed for students to get hands on experience with carrying out experiments had to be redesigned for an online or virtual mode delivery via myeLearning and BBC. Case studies/virtual field trips were also done. Experiments were delivered online using a combination of free web-based resources and/or Field trip/data collection trips previously recorded by the Lecturer. All of these were done to ensure that the learning objectives were achieved at best and students' learning was not compromised.

Lab course assessments previously administered in face-to-face mode were changed to online assessment mode via myeLearning. Assessments were administered as asynchronous take home assignments comprising open-ended questions. Oral presentations by students were completed using BBC. Lecturers were guided to not "overload" students with many assessments (and especially for relatively few marks). The DLS is finalising a Timetable of Assessments to ensure that students in a particular program are not overwhelmed with such overloads. Lecturers will be guided to adhere (at best) to this timetable.

Faculty of Science & Technology (cont'd)

Students continue to communicate with their Lecturers via myeLearning and their staff email addresses. Lecturers have been encouraged to monitor students who may appear to be especially vulnerable e.g. reduced attendance, participation, and non-submission of assessments. Demonstrators continued to perform their duties in Labs with the online and virtual lab components of courses; they continued to assist with the marking of lab reports and providing feedback to students.

Department of Mathematics & Statistics

All classes were delivered online. Assessment strategies were adjusted to suit the online environment. This has been a continuous process that has undergone several changes approved by the Academic Quality Assurance Committee (AQAC).

Department of Physics

Labs exercises were modified to suit online delivery, while maintaining learning outcomes. Alternative assessments were proposed (100% coursework) and academic Staff were encouraged to attend various workshop organised by CETL to improve online teaching and prepare authentic assessments.

Research

Department of Chemistry

Zeyar Min, PhD in Chemistry – 2021

Thesis: Hybrid Organic-inorganic Materials: Design, Synthesis and Characterisation of Lanthanide-based Coordination Polymers and Metal-organic Frameworks for Photo-electronic Applications.

These types of novel framework materials are important in applications such as catalysis involving industrial production of chemicals, electro-optical sensors for detecting dangerous molecules as well as light emitting diode (LED) devices for electronics, as examples.

Afraz Subratti, PhD in Chemistry – 2021

Thesis: Synthesis of Carbohydrate Derivatives: A Focus on Protecting Group Strategies and Phosphoramidate Chemistry.

This research focused on the design and preparation of carbohydrate (e.g., glucose) containing molecules with a view to the development of improved methodologies and the assembly of novel structures. These compounds can potentially act as surface-active agents (e.g., the active ingredients in soaps) and by extension drug delivery vehicles. Some of these target structures can work in conjunction with commonly utilised antibiotics for an enhanced biological effect.

Department of Computing & Information Technology

CIBC Data Science Projects

Coordinator: **Professor Patrick Hosein**

Five post graduate students worked on real world banking problems and provided Data Science solutions. These solutions were presented on a CIBC organised presentation on UWITV.

The BeUWI Application Launched

Coordinators: **Dr Wayne Goodridge, Mr Nicholas Mendez**

The Computer Connections Unit under The Department of Computing & Information Technology launched the BeUWI application as a recruitment apparatus of the Campus. This was done under an MOU Between the Department and Marketing & Communications. Application: <https://beuwi.app>

AdHoc Networks for Disaster Management

Coordinator: **Dr Wayne Goodridge, Dr Michael Hosein**

The DCIT reached out to the Office of Disaster Preparedness and Management (ODPM) to initiate a project to build AdHoc Networks for Disaster Management. The project is for two years, and results are expected in academic year 2021-2022.

Farming, Adaptation and Artificial Intelligence for Resilience (FAAIR)

Coordinator: **Professor Patrick Hosein**

This project seeks to use AI to develop an integrated suite of vegetation indices, by using Unmanned Aerial Vehicles (UAVs) over landscapes and farming systems characteristic of small island states. The implementation would allow for the development of climate-safe agricultural techniques.

Building a Caribbean-based UAV dataset of crops.

Coordinator: **Professor Patrick Hosein**

This project builds an open-sourced Caribbean-based annotated dataset of UAV images to aid with the documentation/detection of weed, plant health, water stress, and land use and cover classification.

Department of Life Sciences

Ongoing research at the Department includes the following:

Professor J. Jayaram and Professor A. Ramsubhag (June 2019-July 2021) Identification and characterisation of elicitor molecules from local seaweeds for plant protection. Currently under testing phase.

Dr Luke Rostant (MSc Co-ordinator), **Professor John Agard** (MSc Chair), and **Mrs Lee Ann Beddoe** (Prog. Manager), in conjunction with the Environmental Management Authority.

Public Sector Investment Programme (PSIP)- To develop a Management plan for the Ocelot (*Leopardus pardalis*) and continues work on the National Restoration, Carbon Sequestration, Wildlife, and Livelihoods project. (June 2019 - ongoing)

Dr Sephra Rampersad

Epidemiological profiling and genotype-chemotype relationships of major fungal phytopathogens (2016 – ongoing)

Novel microorganisms for bioremediation and industrial purposes (2018 to present)

Dr Ayub Khan

Continued joint projects with the Department of Chemistry for identification, isolation and testing of natural products with pest management potential (2018 to 2021)

Dr Amy Deacon

Guppies as invasive species.

Collaborations with the University of Florida and Siena College, New York, investigating aspects of invasion biology using guppies. (2018 - to present)

Dr Adrian Lennon

Mitigation of Cadmium uptake in *Theobroma cacao* (2014 to present)

Dr Adrian Lennon and Dr A Farrell

Responses to high light intensity by *Theobroma cacao* (2017 to present)

Dr Winston Elibox and Dr Lambert Motilal

Genetic Diversity and Ancestry of On-Farm Cocoa (*Theobroma cacao* L.) In Trinidad (2016 to present)

Dr Winston Elibox and Professor Pathmanathan Umaharan

Optimising the growing medium for anthurium (*Anthurium andraeanum* Hort.) cultivation using locally sourced materials (2019 to present); and Genetic Characterisation of Caribbean Hop Pepper, *Capsicum chinense* Jacq. (2018 to present)

Mike Oatham, Francisco Morales, Keisha Manaure, Nechiea Falby-Peters

Construction of Electronic Key to the Vascular Plants of Trinidad & Tobago., The National Herbarium of Trinidad & Tobago (2019 to present)

Faculty of Science & Technology (cont'd)

Department of Mathematics & Statistics

S. R. Gunakala The University of the West Indies, St. Augustine, Campus Research and Publication Fund grant TT\$ 51,000 for the project: CRP3.MAR18.18(1) - Magnetic Hyperthermia for Breast Cancer Treatment via Intratumoural Injection of Nanoparticles: An In-Silico Study (2021).

Department of Physics

Prasad Kalane, Sarika Patil, B. P. Patil and Davinder Pal Sharma (2021), "Automatic Detection of COVID-19 Diseases using U-Net Architecture based Fully Convolutional Network", Biomedical Signal Processing & Control, Elsevier, Vol. 67, May 2021, 102518, <https://doi.org/10.1016/j.bspc.2021.102518>. (Cite Score = 7.0, IF = 3.88)

Strategic Review

ACCESS

Department of Chemistry

During the 2020/2021 period, the Department had to make several changes. Enrolment to the BSc Chemistry option was suspended due to undersubscription and thus a draft proposal for rationalisation of programme offerings to limit the number of undersubscribed courses, majors and minors was prepared.

The Department increased the number of guest lectures by expert practitioners in specialised subject areas, with emphasis on entrepreneurship and industry and the service offered through the Research Outreach Consulting and Analytical Services (ROCAS) was diversified to include product development guidance, particularly to small entrepreneurs.

Other improvements at the Department included the training of ATSS staff to provide IT support to new audio-visual equipment; promotion of open-source digital resources for visualisation of molecules and intro-

ductory chemical calculations of reaction mechanisms, as well as numerous repairs to the Department Computer Laboratory for undergraduate research. The Chemistry Help Desk services were improved through increased availability of full-time academic staff, greater participation of teaching assistants, and dedicated venues. Design specifications were completed for the rehabilitation of the main teaching laboratories located in the C1 Chemistry Building to modern safety and instructional-standard codes, in collaboration with the Campus Projects Office and its team of consultants. An audit of the high-frequency (HF) analytical instrumentation in the C4 Building was done and the development and implementation of an appropriate electrical grounding scheme for their protection and increased reliability was created.

Collaboration with Latin American Centres of excellence in research and innovation deepened through two staff visits and participation in a conference at the University of Havana, Cuba. Academic staff applications to the Campus Research and Publication Fund grew and resulted in a high number of awards. The Department began offering Testing and Certification of industrial-grade equipment during the review period at the C1 Chemistry Building and the Teaching and Learning Centre, including compressors and fume cupboard extraction systems. At the C3 Research Laboratory 4, facilities such as air extraction, lighting and flooring were upgraded to materials handling and safety specifications, while the Research Laboratory 5 was outfitted for dedicated asphalt product research and development.

The Department continued to support the operations of the Chemists in Action (CHEMIA) student group to stimulate enthusiasm and interest in Chemistry through the provision of office space, administrative support, and promotion of planned student activities.

Department of Computing & Information Technology

The DCIT started its review of the undergraduate programmes for Computer Science and Information Technology, using the most recent Association for Computing Machinery (ACM) guidelines. Updates were simultaneously being carried out on the MSc in Computer Science and Data Science. The upgrades started in September 2020 and are ongoing.

The Department attracted the following grants: CIBC-FCIB grant for Research on the application of AI to Finance; National Geographic Society Grant for application of AI to Precision Agriculture; a NVIDIA Hardware grant to pursue research in AI; a SmartGrid RDI Grant; and AdHoc Networks for Disaster Management - RDI Grant.

The Department provided solutions to many problems in industry and developed prototypes, proof of concept and, in some cases, a commercial platform, in particular collaborating with NGOs on social problems. Research students worked on banking problems for CIBC and gave a presentation on UWITV.

The agreement signed between RedHat and the Campus Principal allowed the DCIT to use some of RedHat Lab materials in the teaching of CS and IT courses. Thus, students now can get first-hand experience in Cloud Technologies, Java, and Linux based systems. Teaching and IT Staff also benefitted from the training that RedHat provided.

In May-August 2021, the DCIT maintained its Internship Programme in the face of increasing COVID numbers during a national lockdown. Thirty-five students took up paid Internships across 10 companies.

The purchase of over 50 chairs, which had been deemed as urgent, was temporarily held due to the COVID-19 pandemic. However, once students return to face-to-face mode in the labs this purchase will have to be

accelerated. The Department also needs to replace two UPS batteries and two power modules as all are approaching end of life. The existing enterprise UPS system is nearing peak capacity and will need to be increased. The purchase of four additional power modules and four additional batteries for two UPS units will facilitate expansion for the near future. The Department entered into a license agreement for computer and hardware upgrades in 2014 and it is renewable every 3 years. The VM-Ware license has not been renewed as the Department is using Hyper V as an alternative which allows students and staff to download VMWare software to use in their operating system and security courses. Current access points for wireless and mobile computing are outdated and non-functional. The purchase of 25 USB dongles (used in conjunction with Zero Tier One) was paused due to the pandemic. This purchase will improve remote connectivity for students and staff.

It has become necessary for the DCIT to supply adequate resources to facilitate demonstrations and tutorials, especially due to the nature of the Computer Science discipline. More students rely on hands-on exercises to assist with the development of IT skills. Five years ago, the Department revised its curriculum and changed the entrance requirements for its two flagship programmes - the BSc Computer Science and the BSc Information Technology. Students in both programmes do the same courses at Level 1, plus, students in many other disciplines are now doing Level 1 Computer Science courses. As a result, enrolment for one Computer Science course for the past three years has been over 300 students and in others enrolment is greater than 140. This new situation requires the Department to stream some of our Level 1 courses, given the skill-based nature of the courses.

Faculty of Science & Technology (cont'd)

Department of Life Sciences

The Department of Life Sciences (DLS) reviewed the curriculum for the BSc Biology with Specialisations. Modular MSc-level course offerings were finalised and offered for the first time, beginning September 2021. All academic staff engaged continuously with CETL and attended all the relevant courses in respect of online teaching, use of Blackboard.com, online assessments guides and training. One DLS staff member was also chosen by CETL to assist with this very training program. The DLS actively engaged in more than 20 outreach and public engagement activities. These were online activities which tended to attract more participants and therefore achieved greater reach.

Department of Mathematics & Statistics

The Department continued a review process to ensure that courses and programmes meet regional and national needs and adhere to quality assurance guidelines. The Department of Mathematics and Statistics hosted the annual UWI MATH Fair on 12th March 2021. The theme was "Relevance of Math in a Pandemic". Due to the need to maintain physical distancing to reduce the spread of the Covid-19 virus, the Math Fair was held online using appropriate video and communication platforms such as Zoom and YouTube. A total of 2,803 students and 105 teachers from 43 schools in Trinidad & Tobago registered to attend. Up to the day of the event, there were 3,713 unique visitors and 7,760 total visits to the website.

The Department held several virtual liaison meetings between students and staff. Lecturers addressed the students' concerns, and the minutes of these meetings were forwarded to the Faculty Board. Lecturers continued to make themselves available to students via emails and myLearning and, in conjunction with the Dean, Faculty of Science and Technology, the Department continued to operate the Mathematics Help Centre (MHC) in 2020/2021. During that time

there were 463 visits to the MHC by 138 students. The Department intends to offer the services of the Centre to the Mona and Cave Hill Campuses.

In addition to the above, virtual seminars were held to encourage staff and graduate students to publish their research work in peer-reviewed journals.

Department of Physics

The Department received approval for a new MPhil/PhD programme in Renewable Energy Technology to be offered in September 2021. To align core physics offerings with the Institute of Physics, a new elective undergraduate course - Fundamentals of Atomic and Nuclear Physics (PHYS 2154), was introduced. Amendments were made to the prerequisites for the Electronics and Environmental Physics Minors and their related courses, while the entry requirements for the Electronics Major and MSc in Biomedical Physics were modified to make them more widely accessible to prospects. The Department plans to develop PG Certificates and Diplomas in Medical Radiation Science and Renewable Energy Technology, a BSc in Physics (Special), and a Major in Renewable Energy/Environmental Physics.

The Department started offering single courses out of its MSc programmes targeting working professionals in the medical and renewable energy sectors and obtained the necessary part time teaching staff for the BSc programmes in Biomedical Technology (BMET) and Environmental Science and Sustainable Technology (ESST) Lab exercises were modified for online delivery while maintaining learning outcomes. Assessments entirely by coursework were proposed as alternatives to final exams, and academic staff were encouraged to attend CETL workshops to improve online teaching and prepare authentic assessments.

The MSc Renewable Energy Technology has been offered since 2013 and now urgently requires appropriate equipment for data

collection to support student research and the programme's bid for international accreditation and grant funding. This proposed upgrade would allow the MSc's research projects to provide the supporting scientific research for renewable energy and climate change policies in Trinidad & Tobago. Furthermore, investing in upgraded equipment and data collection would contribute to long-term postgraduate research projects as well as short-term undergraduate projects with commercial potential.

The Department procured a SODAR system on loan from the University of Applied Science, Flensburg, Germany to facilitate research and MSc Projects in the area of Renewable Energy (Wind). Work is in progress for installation of Meteorological Tower for Renewable Energy / Environmental research.

ALIGNMENT

Department of Chemistry

The Department continued to support outreach activities targeting secondary schools. The International Chemistry Olympiad round two screening examinations were conducted with 300 secondary school participants and 40 selections were made for the third and final round.

Experimental work to develop of new rapid testing method for pesticide levels in green leafy vegetables was completed with participation from small local farmers, bringing the related thesis, device, and phone app closer to completion. A new research project to purify runoff water using a bioremediation method commenced during the period under review at the landfill at Guanapo. The Department engaged with local honey producers for research and quality assurance projects that would support export market goals. Workshops, training, and technology transfer sessions were conducted with representatives of Trinidad Lake Asphalt for commercialisation of UWI-licensed products, including detailed engineering advice for scaled production process.

During the period under review, a needs survey was conducted of existing ROCAS clients to ascertain their requirements for certified testing. Basic instrumentation and a secure facility for quality system management were assembled and new gas-chromatography mass spectrometry (GCMS) equipment were procured.

The Department increased its engagement with government and industry stakeholders to develop short courses, diploma and certificate offerings in Occupational Health and Safety (OHS). These were sent to the relevant University bodies for approval. Meanwhile, the application for international certification of MSc OESH program is under consideration by the Institution of Occupational Safety and Health (IOSH).

Department of Computing & Information Technology

The Department received the Geographic Society Grant for application of artificial intelligence (AI) to Precision Agriculture, a NVIDIA Hardware grant to pursue research in AI, and an RDI grant for a SmartGrid project. Shortfalls in funding and human resources have affected the hosting of annual functions bringing together department alumni, which are necessary to build linkages and maintain relationships.

The Department depends on the goodwill of staff and students to conceptualise, organise, and execute the entire Boot Camp. No allocation was made for this line item, although it was requested in the past. This is to subsidize the overall cost of the programme to make it competitive. The Department wishes to continue offering the Boot Camp on an annual basis because it is an important way to generate interest in computing at the high school level.

DCIT is involved with Industry with regards to assigning with innovative solutions. Real time involvement includes the CBC project, utilising Data Science in Insurance Companies, as well as a Disaster Management Application for the ODPM.

Faculty of Science & Technology (cont'd)

The DCIT surveyed industry stakeholders to learn more about how its Data Science Programmes are impacting Industry and whether a PhD in Data Science would be useful. In keeping with our goal of improving the Department's visibility at local and regional levels, to engage our industry partners with seminars, workshops, and other events of interest to the IT community.

Department of Life Sciences

The DLS academic staff actively engaged in activism and public during the 2020/2021 academic year. The DLS academic/Industry partnerships increased significantly as our PG Biotechnology students were absorbed by the Ministry of Health to assist in testing and other areas within their COVID laboratories. This is set to continue in 2021/2022.

Department of Mathematics & Statistics

The Department hosted The UWI MATH Fair in collaboration with the Dean, FST on March 12, 2021. A wider audience is being sought; however, the cost of advertising is a challenge. The UWI MATH Fair was advertised on social media via the FST website and FST Facebook page, all with the guidance of The UWI Marketing & Communications Department to ensure compliance with UWI branding. The Department is currently preparing for a virtual UWI MATH Fair 2022.

Department of Physics

Several academic staff engaged in outreach activities during the 2020/2021 academic year. These included, **Dr Shirin Haque** "Science Talks, Science Rocks" to Corpus Christi College on October 21, 2020, and "Celebrating Women and Girls in Science in Trinidad & Tobago" at UNESCO/NIHERST on February 11, 2021. **Dr Davinder Sharma** was an invited speaker on "Design, Optimisation and Modelling of Microbial Fuel Cell" for Faculty Development Program on "Recent Developments in Physical Sciences" at DAV College, Amritsar, India, on July 17, 2021. **Dr Andrea Joseph** was a part of a joint observa-

tion of the 2020 International Day of Medical Physics between the Physics Departments of The UWI St. Augustine and Mona campuses. The day was observed with a special virtual Lecture on the topic, "Medical Physicist as a Health Professional", on November 12, 2020.

The Department organised three Information sessions with N1 students (June 30, 2021), PG students (July 2, 2021) and potential applicants, to increase intake. Internships were arranged for all BMET students for the academic year 2020/2021. The Industry Liaison Committee (ILC) developed its TOR in consultation with external stakeholders and held two guest lectures on November 12, 2020, and second on March 18, 2021. Collaborations were made with the Caribbean Electric Utility Services Corporation (CARILEC), Trinity Exploration and Production (T&T), and the Electronics Workshop team which has been developing a UV Robot that sanitises spaces to prevent the spread of Covid-19.

In preparation of Quality Assurance Review (Scheduled on Nov 15-19, 2021), all Departmental academic and administrative process were reviewed. An initiative to streamline inventory management was begun. A team was formed and the possibility of using inventory management software is being explored. All staff members were involved in preparation of self-assessment reports for the Quality Assurance Review.

AGILITY

Department of Chemistry

The Department continued international research collaboration projects in Catalysis, at the University of Cardiff, Materials Chemistry, at the Brookhaven National Laboratory, and Surface and Elemental Characterisation, at Universite D'Antilles, Guadeloupe. Engagements with **Dr Ale Palermo** and **Dr Sarah Thomas** of the Royal Society of Chemistry Commonwealth Chemistry Initiative continued toward the first International Congress to be hosted by the St. Augustine Campus.

Hand-sanitizer product development and testing were supported by technical staff and the Research, Outreach, Consulting & Analytical Services (ROCAS) unit. Advanced operationalisation of a spin-off company, UWI-Seal-It, was achieved, including projections of demand, corresponding manufacturing capacity and staffing needs. The Department was able to initiate discussions with UWI Ventures toward the commercialisation of technical knowledge and research program outputs and was able to optimise international order delivery through more personalised interactions with company representatives.

The OESH programme offerings were expanded to attract more fee-paying adult learners and experienced workers in industry. The service and upgrade of liquid nitrogen production facility was completed, as well as an audit of research and analytical equipment for prioritisation of service and replacement. New systems for internal management of air-conditioning contractor services were also put on stream.

New safety protocols were developed for external contractors allowing them to work in lab spaces, and digital file systems were promoted to reduce printing by staff and students, which led to a 55% cut in expenses for paper.

Department of Computing & Information Technology

On October 9, 2019, the DCIT started a weekly Seminar Series Workshops 'Do or Die' to help staff transition in the fields of Data Science, Data Analysis and Machine Learning. The presentations were done by both senior and junior academic staff members in the Department. Those presentations were aimed at bridging the gap between the traditional approaches to programming and the newer machine learning approach.

The Project and Internship courses developed an app to aid in students' recruitment for the Marketing & Communication Office

(M&C). The M&C will soon launch this app as the "BeUWI Recruitment App". The DCIT's Computing Connections Unit will take over the maintenance of the project for an annual fee. In Semesters II and III, Academic Year 2019/2020 the Project and Internship courses respectively developed an app that allowed students to make appointments with the Health Services Unit. This proposal is pending the Campus Principal's signature. The DCIT's Computing Connections Unit will take over the maintenance of the project for an annual fee.

The Department did not host any retreats for the period under review; however, staff contributed to several team-building and/or staff engagement initiatives. Given the operational activities that must be undertaken throughout the academic year, it is difficult to meet for an extended period with Academic and ATS Staff to reflect on our operations and plan strategically for the future. The Department is currently on a mission to raise its local, regional, and international profile. To facilitate this mission, the Department's culture needs to become more team-oriented and strategically focused.

Department of Life Sciences

The DLS still managed to attract a similar number of applicants during 2020/2021- for entry in 2021/2022. The DLS has reduced its part-time staff significantly, and at the same time ensured that student learning was not compromised. The online mode has allowed for innovation and creativity by DLS academics and reduced the over-dependence on part-time staff. The DLS's creativity and motivation of staff is reflected in their academic productivity (high number of scientific publications), even during the COVID pandemic. All academic staff engaged continuously with CETL and attended all the relevant courses in respect of online teaching, use of Blackboard Collaborate, online assessments guides and training and more. One DLS staff member was also nominated by CETL to assist with this training program.

Faculty of Science & Technology (cont'd)

Department of Mathematics & Statistics

The Department offered several short courses during August 2021 which generated roughly \$43,500.00. More are to be offered in 2022. However, a few courses initially offered in the Summer Session had to be cancelled due to low enrolment.

Department of Physics

During the 2020/2021 academic year, three students within the Department presented papers at international conferences in Russia and the USA. The Electronics Workshop (EW), Electron Microscopy Unit (EMU) and X-ray Diffraction Unit (XDU), have been advertising their services to the entire campus community via the M&C Office and has realised some improvement in the number of job

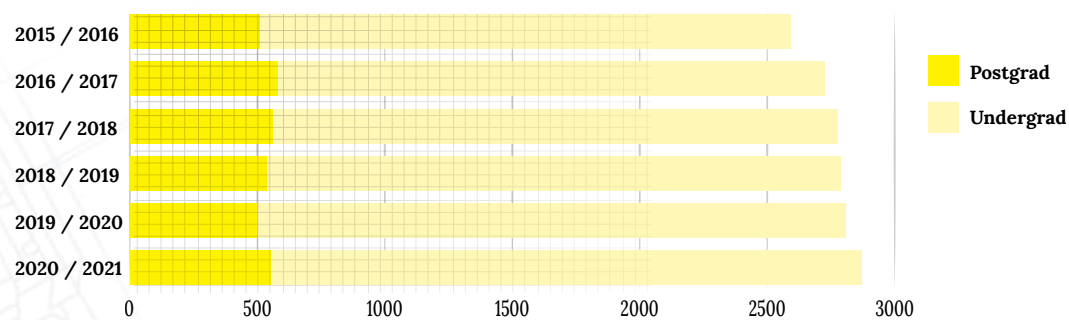
orders received. The COVID-19 pandemic has however impacted income generation. The Electronics workshop continued to work on developing UV Sanitisation Robots that would help in the fight against Covid-19, and which may be commercialised if successful.

Several MSc candidates were affected by the downward turn in the local economy and Government's withdrawal of GATE support for postgraduate students. The Department responded by offering some postgraduate courses as modules or stand-alone courses using existing resources.

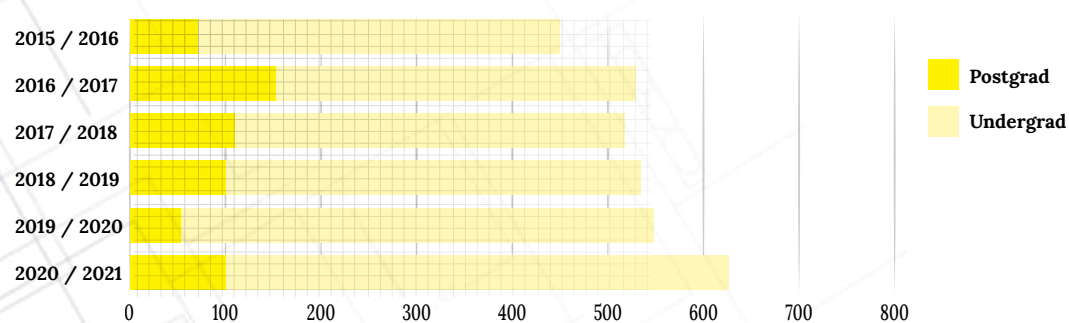
A PG Certificate and PG Diploma in Medical Radiation Science and a PG Certificate/Diploma in Renewable Energy Technology were in development during the period.

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Social Sciences

Dean's Summary

The Faculty of Social Sciences made significant progress during the 2020/2021 academic year despite the challenges faced by the ongoing COVID-19 pandemic. Amendments to the course weightings for several courses were made to facilitate the alternative assessment strategies that were implemented under the COVID-19 pandemic and the remote teaching arrangements. During the period November 02-06, 2020, the Department of Economics conducted its Quality Assurance Review exercise, and an Action Plan on the findings and recommendations of the Review Team to improve the delivery of academic programmes and stakeholder consultation was being implemented.

The Faculty was pleased that **Dr Wendell Wallace**, Lecturer in Criminology, Department of Behavioural Sciences, was awarded the September 2020 Author of the Month by the National Library and Information System Authority of Trinidad & Tobago.

Through its Information and Communications Technology Committee, conversion of all Faculty and Departments' websites to an updated Drupal format was completed and inroads were made in incorporating social media as another avenue to keep its stakeholders informed of Faculty events.



Dr Acolla Lewis-Cameron
Dean

Faculty of Social Sciences (cont'd)

The Faculty of Social Sciences' strategies were framed around the focus areas of digitisation and innovation. To maximise the use of electronic filing, editable forms to replace paper-based forms were uploaded on the Faculty's website that allowed for tracking and responding to students' requests in a timely manner. Online academic advising replaced face-to-face advising, and an E-customer service (Live Chat) was implemented in the Dean's Office. Initially, the visits to the faculty's website were tracked with over 1,000 hits on a weekly basis. The Faculty also purchased a JotForm licence to convert all Forms used by the Faculty into editable forms on the Faculty's website.

The Department of Management Studies piloted the use of the Curriculum Advising and Programme Planning (CAPP) module in Banner for advising students in Semester 2 that feeds from the Faculty's academic programme requirements to track a student's progress. The CAPP system will be utilised in the upcoming academic year, 2021/2022, by the entire Faculty to improve the accuracy of the academic advising process.

During the reporting period, the Faculty of Social Sciences sought to develop a robust research culture for postgraduate students, in addition to encouraging greater stakeholder engagement in the research being done by its postgraduate students. In this regard, the Faculty, through the Graduate Studies and Research Committee, hosted its first Postgraduate Research Week during the period March 22-26, 2021. The sessions showcased the research work of both staff and students.

The 'Step-up Programme', a joint initiative of the Department of Political Science, the Faculty's Distance Education and Outreach Committee, and the Campus Office of Graduate Studies and Research was held from February 06 - March 6, 2021. The initiative was a five-week programme to engage postgraduate students on how to write, how to communicate, time management, and how to present more effectively.

The sessions were facilitated by Instructors from Toastmasters International, and the University of Texas. The programme was a huge success with over 132 persons participating and will continue into the 2021/2022 academic year.

During the reporting period, the Faculty of Social Sciences engaged in many virtual outreach activities. The Department of Economics hosted its virtual conference on the Economy from November 25 to 27, 2020 under the theme "Crisis is Opportunity: COVID -19, The Way Forward". Ms Ann Diaz of the Mediation Unit of the Department of Behavioural Sciences developed a hybrid virtual coaching and mediation training module for the Caribbean region. Training sessions were successfully launched in Saint Lucia, Montserrat, and Dominica. The Faculty's Distance Education and Outreach Committee also hosted an online seminar entitled "Dealing with Anxiety and Depression" facilitated by **Dr Hazel Othello** on October 01, 2020. The BDU also successfully hosted a professional development online seminar entitled "Building Mental Resilience - Your COVID-19 Response" which was moderated by occupational psychologist **Mrs Shian Ottley-Reid**. During the reporting period, staff in the Departments were engaged in several research projects in areas such as Intimate Partner Violence, Police Research, Migrant Workers, Sexual Harassment, and Attitudes towards the Pandemic.

In the 2021/2022 academic year, the Faculty of Social Sciences will focus on the completion of the digitisation and innovation initiatives, such as the electronic filing system for the Dean's Office and Departments to consolidate all records in central repositories that will be easily accessible. Focus will also be on the completion of Phase II of the Strategic Planning process that will involve stakeholder consultations and a review of all academic programmes by December 2021, and the development of an overall Strategic Plan for the Faculty of Social Sciences.

Enrolment

During the reporting period, a total of 1,198 new students registered to pursue programmes in the Faculty of Social Sciences. At the undergraduate level, 923 students were enrolled and 275 students were pursuing postgraduate programmes.

Graduation

A total of 781 undergraduate students graduated from the Faculty of Social Sciences. For the first time since the inception of the Faculty, 171 students were awarded First Class Honours degrees. Ninety-five students also completed the Certificate in Public Administration programme.

Mr Marc Dwarika, a final year BSc Economics student at St. Augustine, was awarded the Charles M. Kennedy Prize for attaining the highest Grade-Point Average (GPA) of 4.24 in the BSc Economics degree at Levels II and III across all campuses. He was also awarded the Hugh Springer Prize for attaining the highest GPA at Levels II and III in the Faculties of Social Sciences, and Humanities and Education across all campuses.

Research

The Department of Behavioural Sciences established a Mentoring and Research Cluster to increase opportunities for mentoring graduate students and to foster greater research collaboration between staff and students. Some of the initiatives that fell under this cluster included the Intimate Partner Violence-3R Response Project, the Police Research Group, and the Psychology Research Lab.

The UWI-Justice for Migrant Workers (J4MW) Project emerged out of the engagement between The UWI and Brock University colleagues at the 2020 inaugural meeting of the CANADA-Caribbean Institute (CCI). A key concern coming out of that symposium was the systemic vulnerabilities of migrant farm

workers within the seasonal agricultural workers' programme. In keeping with the fundamental thrust of the CCI, the project represented a collaboration between J4MW (Canadian Non-Governmental Organisation) and UWI students and staff across the Mona and St. Augustine campuses. As part of this initiative, the Department of Behavioural Sciences developed a three-stage intervention plan that solicited the cooperation of students, staff, ministerial officials, activists, and community leaders.

Strategic Review

ACCESS

Office of the Dean

The Faculty completed the conversion of its websites to an updated Drupal format and made inroads in incorporating social media to keep its stakeholders informed of Faculty events. Facebook profiles were also created for the Departments of Management Studies and Economics. A revised postgraduate programme – Strategic Leadership and Innovation – was rolled out.

The 'Step-up Programme', a joint initiative of the Department of Political Science, the Faculty's Distance Education and Outreach Committee, and the Campus Office of Graduate Studies and Research was held from February 06-March 06, 2021. The intention was to engage postgraduate students on how to write, how to communicate, time management, and how to present more effectively. The sessions were facilitated by Instructors from Toastmasters International, University of Texas.

The Faculty hosted its first Postgraduate Research Week from March 22-26, 2021 to create a Faculty research culture for staff and students and to reach out to students via an online forum. The sessions showcased the research work of both staff and students as well as improving staff welfare.

Faculty of Social Sciences (cont'd)

Department of Behavioural Studies

The Department provided technical services to key stakeholders including the Ministry of Health (Vaccine Hesitancy Task Force) and the Youth Speak Up project. Strategic programme reviews were undertaken, including surveys of administrative and academic staff, students, alumni, and potential employers. The 238-page report was distributed to all staff. The Department partnered with Brock University to deliver a virtual exchange programme that allowed students across Brock and UWI to register for courses related to their programmes. Staff participated in over 30 webinar activities and recorded high participant engagement at virtual events.

Department of Management Studies

The Department continued to host annual events such as the UWI/FIFA/CIES Open Public Lecture Series connecting virtually with stakeholders and prospective students. DOMS engaged in strategic planning as part of the Faculty's overall strategic planning activity. Phase 1 was completed, and this included a review and development of vision, mission and strategic objectives. The Department attracted nine companies to provide internship opportunities for its undergraduate students. There was a review of MSc Research Project supervision, investigating issues such as student progress rates, and the student/supervisor ratio. A Young Scholar Programme was launched in collaboration with The University Office of Planning and the Portsmouth Business School in the United Kingdom.

Department of Political Science

Between February 6 and March 6, 2021, the Department held its inaugural "Step Up" programme designed to guide graduate students on how to write, how to communicate, time management, and how to present more effectively. One hundred and thirty-two students engaged with seven international speakers and facilitators, including representatives from Toastmaster's International, the

University of Texas at Dallas, the New York Public Library, and the Writing Centre based at the St. Augustine Campus. Certificates of participation and appreciation were issued to all who participated in the programme.

The Department conducted a review of its mission, vision, core values, and ideal graduate attributes. The process included a SWOT analysis and stakeholders' analysis. This exercise kicked off what is to be a comprehensive curriculum review. New electives were introduced for the Public Sector Management Postgraduate Diploma and MSc programmes to broaden the knowledge base, given the multi-sectorial climate of public organisations, and to provide more elective options which may be taken in lieu of a practicum. To remain aligned with the needs of industry stakeholders, surveys and focus group meetings were held and the resulting feedback was funneled into the wider strategic planning process. The Department focused its publications during the period on international and comparative research.

ALIGNMENT

Department of Behavioural Studies

Staff were involved in the UWI-Justice 4 Migrant Workers Project alongside other UWI and Canadian colleagues. This project was designed to bring visibility and awareness to some of the issues facing Caribbean migrant farm workers in Canada. The Department held a sociology essay competition for CAPE students, a Virtual Lecturer Series, and participated in media presentations and interviews. A Criminology and Criminal Justice Student Association was established during the academic year and sociology students engaged in a peer mentoring programme.

Department of Economics

The Trade and Economic Development Unit (TEDU) conducted 21 virtual seminars in its National Conversations series between August 5, 2020 - July 23, 2021. The Conference

on the Economy (COTE) Youth Events included a number of virtual outreach activities such as Youth Discussions, Debates and Essay competitions in partnership with secondary and tertiary institutions. Major collaborators were UWIROYTEC and Queens Royal College (QRC). The Demas-Rampersad Seminar Series entailed three virtual discussions, including the Annual Post Budget Forum and panel discussions with industry professionals.

The annual Conference on the Economy (COTE) was held virtually under the theme "Crisis is opportunity. COVID -19 The Way forward". The conference sought to expand the collaboration between the Departments of Economics across the Mona and Cave Hill campuses. The Department is grateful to the following corporate partners: First Citizens, the Unit Trust Corporation, the Central Bank of Trinidad & Tobago, and SAGICOR.

Department of Management Studies

The Department continued to partner with Republic Bank Ltd to produce the annual Management Challenge and a new structure was adopted under a revised MOU.

Department of Political Science

Lecturers within the Department facilitated activities that would opportunities for students to interact with a diverse range of external stakeholders at the community, national and regional levels. For example, students pursuing the BSc in International Relations (Special) were privileged to have a session with the Caribbean Court of Justice. The Department's Community Outreach Programme led to involvement in a STEM and Life Skills Project at an "at risk" secondary schools in Laventille. This was a collaboration with the Fulbright Alumni Association of Trinidad & Tobago, the US Embassy, and UTT. Research undertaken during the period spanned a spectrum of local, regional and international research agendas, such as comparative administration within public human resource management research, new public management multi-country

studies, and international relations. The Department implemented a new streamlined online advising system using a variety of remote platforms - Zoom, MS Teams, and MS Forms. This helped to ensure that academic advising continued during the COVID-19 lockdowns. Scholarly outreach at the Department included participation in almost a dozen online conferences, and panel discussions organised by local and international entities.

AGILITY

Office of the Dean

The Faculty's Business Development Unit (BDU) focused on revenue generation by designing and executing short-term development seminars. The BDU successfully hosted an online professional development seminar entitled "Building Mental Resilience - Your COVID-19 Response" targeting senior and middle-level managers during the period June 16 - July 07, 2021. Mrs. Shian Ottley-Reid, Occupational Psychologist, served as the Moderator. Thirty persons participated in the seminar thereby generating additional revenue for the Faculty. The Faculty once again conducted a successful Summer School session between May-July 2021, this time, virtually.

Digitisation and innovation were key to many activities and projects undertaken over the period. Staff maximised the use of electronic filing; uploaded editable forms on the Faculty's website that allowed for tracking and timely responses to student requests; face-to-face academic advising gave way to online advising; the Dean's Office launched an e-customer Live Chat service and purchased a JotForm license to convert all forms used by the Faculty into editable forms on the Faculty's website.

Department of Behavioural Studies

The Department held virtual training of court officers across the OECS countries, and the Turks & Caicos. Professional development training sessions were held

Faculty of Social Sciences (cont'd)

for youth officers on behalf of the Tobago House of Assembly. Internally, professional development workshops were held for staff, focusing on assessment and promotion, and a digitisation exercise was carried out of all concentrating on the academic forms used in the department, such as academic advising and supervisor requests.

Department of Management Studies

The Entrepreneurship Unit developed a 2-credit co-curricular course - Innovation and Entrepreneurship Steps and continued to facilitate training programmes within The UWI; and contribute to the development of The UWI Entrepreneurship & Innovation Ecosystem, by working closely with UWI Ventures and STACIE. The Department piloted the use of the Curriculum Advising and Programme Planning (CAPP) module in Banner for advising in the Semester 2 of the review year and prepared to implement the FSS Academic Advising Course Shell in the upcoming 2021/2022 academic year.

Department of Political Science

Faculty are represented on various international and professional associations, partnerships, scholarly and professional development roles, including serving on international executive boards, international editorial boards, and participating as members or reviewers. Training sessions were held for Administrative, Technical and Service Staff (ATSS) to bridge current skills gaps and to prepare for future enhancement. Members of this group were also exposed to sessions on writing for the Web, and how to use the online Canva application to produce promotional content such as flyers, posters and infographics. For Academic staff, training sessions were held to improve the use of the myeLearning platform.

The Department's cost containment and efficiency strategies included a review of tutorials offered. Switching to online delivery reduced expenditure and reduced the demand for part-time staff. This allowed the Department to stay well within its budget during this period.

The two self-financing programmes offered – the PG Diploma and MSc in Public Sector Management, continued to attract students. The Department relied heavily on its internal resources and networks to market these programmes, particularly on social media platforms, leading to further savings.

Distinguished Visitors

Ms Nadine Bushell

Programme Coordinator,
CARICOM Implementation Agency for
Crime and Security

Mr Lyndon R.W. Guiseppi

Chief Executive Officer, Caribbean
Investment Holdings Limited,
The Belize Bank Limited, Belize

Mr Ronnie S. Ntuli

Entrepreneur, Financier and Chairman,
Thelo Group (Thelo), South Africa

Ms Kedenard Raymond

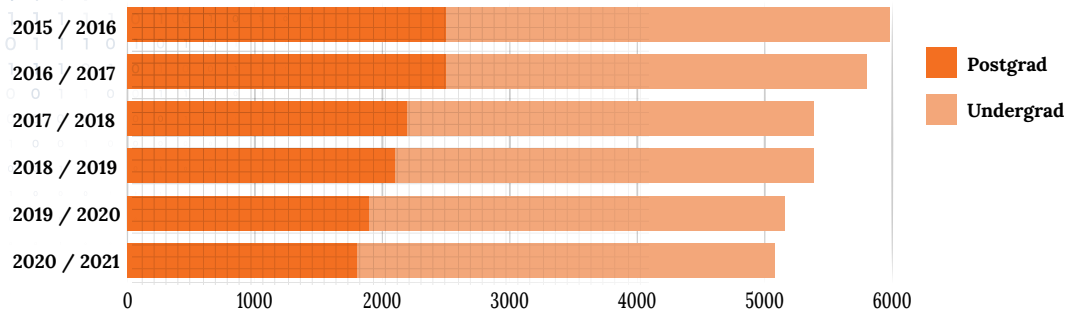
US Foreign Service Diplomat,
Heads Public Affairs Section
U.S. Embassy Port of Spain,
Trinidad & Tobago

Dr Meghna Sabharwal

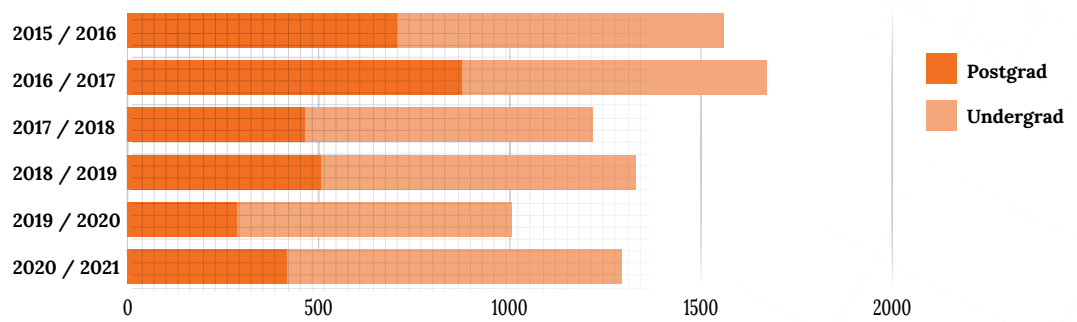
Professor and Programme Head,
University of Texas, Dallas, USA

Graphs

Five Year Enrolment Trends



Five Year Graduation Trends



Faculty of Sport

Dean's Summary

The Faculty of Sport at the St. Augustine Campus consists of the St. Augustine Academy of Sport which administers the three academic programmes offered, and the Sport and Physical Education Centre (SPEC) which manages the sporting facilities on the campus. The Faculty reaches across all the Campuses of The University of the West Indies, through Academies of Sport established on the Cave Hill, Mona, Open, and St. Augustine campuses. These Academies (previously known as Departments) are also responsible for sports at all levels, as well as outreach to communities through Sports. The Faculty of Sport integrates teaching and research, professional development, community partnerships, and co- and extra-curricular student sport through three main units: Professional Programmes, Outreach Projects Unit, Co-curricular Intramural-Activity Unit, and the Academic Programme Activity Unit.

This academic year was one of the most challenging for sport worldwide, and the region was not spared. Very little sporting activity took place and teams remained optimistically dormant and disappointed. Nevertheless, the Faculty continued with our mission of transforming the world through research and academics, that develop and deliver international sports excellence in an inclusive, harmonised, and student focused environment.



Dr Akshai Mansingh
Dean

Faculty of Sport (cont'd)

The Faculty's vision is to become the premier sport education organisation by delivering relevant world class opportunities that positively challenge this generation to create a more successful and sustainable future. One UWI always.

The Faculty remained active through webinars, conferences and workshops to advance the knowledge of sport across many disciplines. All academics showed agility in adapting delivery of lectures and assessment methods as face-to-face interactions were curtailed. Communication with all students remained a priority to ensure that the quality of courses did not diminish. Cross-campus teaching commenced between the Mona and St. Augustine Campuses which allowed students to experience the best available lecturers in applicable courses.

The Faculty anticipates partial resumption of sporting activities in 2021/2022, and stand attentive to the needs of students, athletes and stakeholders to provide respite in whichever way to the anxiety and frustrations being faced by all.

Enrolment

There was a 46% decline in new student enrolment across the four campuses last year in comparison with 2019-20. Nine sport related awards were given to student athletes of the St. Augustine Campus and scholarships were offered to 87 athletes at Mona.

Graduation

The Faculty was pleased to have graduates at the Mona, Cave Hill and St. Augustine graduation ceremonies. Twenty-six students from the Cave Hill campus graduated with a BSc Sport Science, and 10 with an MSc Sport Science. Mona Campus saw four students graduating with an MSc Sports Medicine, and St Augustine Campus graduated six students with a Certificate Art & Science of Coaching.

Student Achievements

Malaika Dedier, female footballer and Geomatics Engineering student, was selected by the Tertiary Sport Association of Trinidad & Tobago (TSATT) to represent Trinidad & Tobago at the Fédération Internationale du Sport Universitaire (FISU) Volunteer Leaders Academy. The FISU Volunteer Leaders Academy (FVLA) is an educational event that serves as a key part of the international sports and volunteering movement. Malaika's role was to serve as a link between FISU and student communities in the countries where FISU is present and to help raise awareness about the university sport movement and events, in addition to contributing to the organisation of different activities throughout the year such as the International Day of University Sport.

Two student-cricketers from the St. Augustine Campus, Amir Jangoon and Yannick Ottley, who were part of the Trinidad & Tobago senior team, were nominated for the Vice-Chancellor's Sportsman of the Year Award 2020.

Shamera Sterling, a star netballer from the Mona Campus and Emmanuel Stewart, an excellent cricketer who studies at the Cave Hill Campus, emerged Vice-Chancellor's Sportswoman and Sportsman of the Year 2020.

Student Activities & Achievements

Faculty of Humanities and Education student, Jon-Russ Jaggesar, was selected to play with the St. Kitts and Nevis Patriots and was the second highest-wicket taker for his team, even though the Patriots did not make it to the semi-finals.

Student Amir Jangoon, who recently completed a double major in Environment and Natural Resource Management and Geography, was selected again to be part of the Trinbago Knight Riders for the 2020 Caribbean Premier League Tournament. He made his debut for the Trinbago Knight Riders in the latter half of the tournament, featuring in two matches.

Three student cricketers, who were also part of the national senior team, participated in the Cricket West Indies (CWI) first virtual coaching courses, which ran from September 14-17, 2020. The trio of Amir Jangoo, Yannick Ottley and Brian Charles engaged in the programme, which is part of the 'Cricket First' strategic plan that aims to build coaching skills around the region through a new Coach and Player Development Pathway.

The UWI St. Augustine Tennis Club participated in the East Clubs Classified Tennis Tournament on April 11, 2021 and placed 2nd overall. Nabeel Mohammed (Facility Attendant at SAAS) emerged champion of the Men's Singles A Division. Nabeel was also a doubles finalist with Nathen Martin in the Men's Doubles A Division. Carlista Mohammed & Jordanne Dookie Women's Doubles A Division. Jordanne Dookie was also a finalist in the Women's Singles A Division.

Strategic Review

2020/2021 academic year saw the full rollout of cross-campus online teaching between St. Augustine and Mona. Programme delivery progressed well and the few technical challenges were resolved in a timely manner. All the courses were accessible virtually, in accordance with the approved online course contents, delivery modes, and assessment modifications. Shared links were set up to facilitate students' access to course contents. Administrative staff worked closely with other Departments to mitigate the impact of remote learning for both our students and lecturers. However, low enrolment continues to be a major concern.

ACCESS

Although there was a 46% decline in new Admissions across the Faculty, only a marginal decline was reported at the St. Augustine Academy. Lack of access to GATE funding was a deterrent for some applicants and an earlier start to marketing and promotion of programmes and processing of applications was required.

In the Trinidad & Tobago market, the Faculty worked with the Marketing & Communications (M&C) Office at the St. Augustine Campus to participate in a series of Campus Virtual Open Days. These provided prospects directly with information on admissions, fees and financial support, student life, policies and procedures. M&C also arranged Virtual Open Days, specific to each Faculty, including Sport. The Faculty plans to work with M&C to explore other marketing opportunities in the press and on social media, radio and television.

New undergraduate programmes were approved for delivery as of 2021/2022. These included the BSc Sport Coaching (Cave Hill Campus), the BSc Sport and Physical Literacy (Open Campus), and Minors in Sport Coaching and Sport Kinetics at Mona. The Faculty will conduct a survey at St. Augustine to assess the demand for minors and other Sport programmes. The Faculty also developed short courses in Sport Governance Training, Sport Injury Management, Sports Marketing and Swimming and Lifesaving. The MSc Sport Business Management was started in Semester 2, and an outline for a MOOC (Massive Open Online Course) on the History of West Indies Cricket was developed.

Cross-campus collaboration continued between the St. Augustine and Mona campuses for the BSc programmes, in a similar fashion to the rollout of the initial arrangement. Shared links have been set up so that students have easy access to the course content. For online course delivery, in-course tests and quizzes were administered using

Faculty of Sport (cont'd)

the Cross Campus Moodle (CCM) platform. The format for most of the examinations was changed to multiple choice questions (MCQs), extended matching questions, and true and false questions. This allowed for a fair assessment of student aptitude in the various subject areas and sought to reduce the occurrence of sharing of responses. Additional case studies and written papers were added to the coursework evaluations. For all programmes, timelines were adjusted to allow students maximum opportunity to access, complete and submit assignments. Courses in the Certificate programme were taught by St. Augustine lecturers only, as previously done via myeLearning and Blackboard Collaborate. Teaching was in the form of online lectures, video presentations, in-class discussions, and class notes for subsequent revision. This approach was intended to improve the coverage of the study material and to maximise interaction between students and lecturers. For courses with practical components, live presentations and video recordings were used and assessments remained as 100% coursework.

Through the efforts of Ms Stephanie Power (The UWI Women's Cricket Club coach) and her affiliation with the Trinidad & Tobago Association of Georgia (USA), the Melsha Snaggs Enrichment Scholarship, valued at US\$500 was introduced. The objective was to recognise and reward a deserving Year 2 or Year 3 student athlete registered at the St. Augustine Academy of Sport, who held a grade point average (GPA) of 2.5 and above.

Faculty members from all campuses contributed to the over 20 articles published in the Sport Matters column published in the Trinidad Guardian. The column was launched on August 5, 2019 and ran until August 24, 2021. All article submissions were edited by **Professor Emeritus Funso Aiyejina** and published together as a book. The original Sport Matters articles are also available on the Faculty of Sport website. Three peer reviewed articles and one collaborative book were published from faculty at the Mona

Academy of Sport. The Faculty hosted three research seminars during the year to foster a research culture. Seven students of the Mona Academy had articles published in the Trinidad Guardian during the review period.

ALIGNMENT

During the period under review, the Faculty hosted two Sir Frank Worrell Memorial Lectures - on November 16, 2020 and June 28, 2021, with sponsorship from First Caribbean International Bank (Barbados) and UWI tv. A virtual Coaches' Conference, in partnership with SporTT was held on March 24, 2021.

As a socially responsible entity, staff and students at the Faculty, through The UWI Cricket Club, donated food, household and personal care items to members of the St. Vincent and the Grenadines Under-19 National Women's Team affected by the volcanic eruption in that country. Food hampers were donated to 12 families in the Laventille/Morvant area whose incomes were affected by the public health measures put in place during the pandemic. The Sports Psychologist at the Mona Academy of Sport also provided psychological support free of cost to St Vincent and the Grenadines' Netballers.

Health and Wellness activities were stymied at the St. Augustine Campus by Covid-19 and the accompanying State of Emergency. In response, the Faculty - through the Sport & Physical Education Centre (SPEC) - launched online recreational and fitness classes. On the few occasions when the protocols for gatherings were relaxed, SPEC held in-person spin sessions and tennis on an appointment-only basis. However, the uptakes for these events, even when free, were not as encouraging as had been hoped. At Mona, The UWI Moves programme was held weekly with adjustments for COVID-19 restrictions. At the Open Campus, OC Moves featured boot camps in specific months during the year, while at St Augustine, weekly Zumba plus Stretch and Relaxation classes were conducted in November.

The Faculty partnered with CREPS Antilles-Guyane and the French West Indies University in securing funding of €30,000 for a research project. The project aimed to identify the educational needs of coaches in the Caribbean region. Partnership agreements with the Trinidad Guardian, Jamaica Cricket Association, Jamaica Hockey Federation, and KSAFA were maintained during this period.

New MOUs were signed in July with SporTT in Trinidad & Tobago and the National Powerlifting Association of Jamaica (NPAJ). The areas of collaboration included the creation of an environment for seamless transition from academia to application for sport professionals; encouragement of the concept of continuous professional development among the region's sports professionals, coaches and administrators, and collaboration on educational seminars, white papers and interventions meant to address the ever-evolving sport industry. UWI Mona and NPAJ also signed an MOU which includes agreements to lend the expertise of the Mona Academy of Sport staff to the medical committee of the NPAJ; and the management of injuries for players who are registered with NPAJ at a discounted rate.

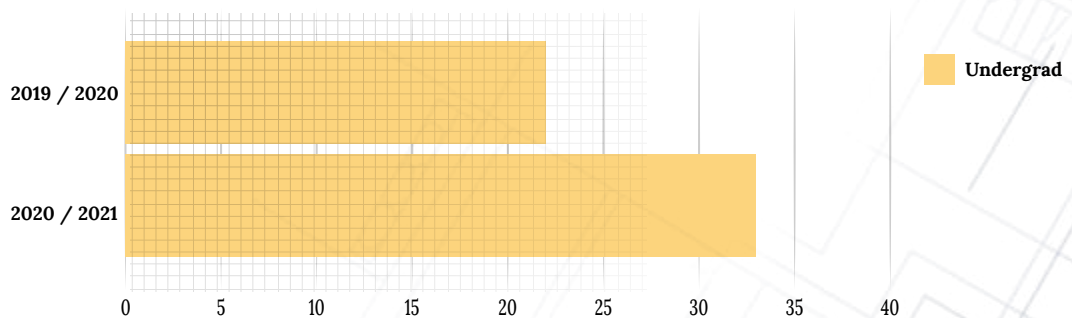
AGILITY

St. Augustine Academy of Sport (SAAS) had the privilege of providing a bio-secure training venue for teams participating in the Hero Caribbean Premier League, which was held in Trinidad & Tobago from August 18 to September 20, 2020. Consistent with the Faculty's intellectual engagement with the public, the SAAS hosted two virtual webinars on Sports Injuries and Financial Fitness.

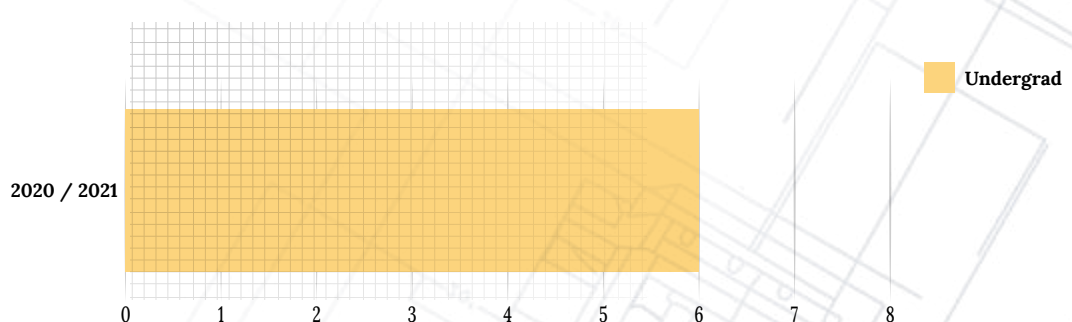
The Faculty procured biomechanics equipment valued at US\$25,000.00 for the Sports Medicine Clinic at the Mona Academy of Sport (MAS) from the funds from the CDB grant. As a cost saving measure, members of the Open Campus Academy of Sport, took on new responsibilities in the areas of programme management, course delivery, and development and two were also redeployed to other sections of the Open Campus to assist understaffed Departments. Proposals for a revised organisational structure for the St Augustine Academy of Sport and Cave Hill was submitted to the St. Augustine Academic Board and Finance & General Purposes Committee (F&GPC) and to the Principal, at Cave Hill respectively. Two temporary Lecturers for the Cave Hill Academy of Sport for 2021/22 were recruited and the post of Head, St. Augustine Academy of Sport was advertised.

Graphs

Enrolment Trends



Graduation Trends



Centres & Institutes

ANSA McAL Psychological Research Centre

In the academic year 2020/2021, the ANSA McAL Psychological Research Centre (AMPRC) engaged in several activities aligned with The University of the West Indies' (UWI) Triple A Strategy. The Centre continued to collaborate globally, and hosted an internationally advertised webinar on Family Violence in Suriname, Trinidad & Tobago and the Wider Caribbean. This was a joint initiative involving The University of the West Indies, Syracuse University and Anton De Kom University of Suriname. The Centre also continued its work on Bridging the C.R.I.M.E. (Community, Research, Innovation, Monitoring, Empowerment) Divide which is scheduled to transition to the field stage in March 2022. The Centre continued to support the International Honor Society in Psychology (Psi Chi), UWI St. Augustine Chapter and the development of research skills for both undergraduate and graduate students. We continue to engage in activities in pursuit of UWI strategic goals in the academic year 2021/2022.

Research

Bridging the C.R.I.M.E. Divide (Ongoing)

Given the current pandemic, the implementation of the data collection phase had to be further postponed. The new date for

the commencement of data collection is anticipated to be March 2022. The major rationale of this project is to conduct innovative research on crime perceptions, victimisation, and reporting in Trinidad & Tobago. Crimes significantly and adversely impact on communities, from decreases in human welfare to perceptual and emotional changes to social fragmentation to economic decline. These effects have necessitated action from various stakeholders in society, from the individual to state level, but the crime problem remains unresolved. The Bridging the C.R.I.M.E. Divide project aims to provide a bridge between academia and stakeholders through social innovation, by partnering with stakeholders to investigate how various divides within society affect crime perceptions, victimisation, and responses to victimisation and to cultivate strategies for addressing these divides. Several stakeholder meetings were conducted towards the preparation of the measuring instrument.

International Collaboration

A webinar on Family Violence in Suriname, Trinidad & Tobago, and the Wider Caribbean, was initiated and hosted by the ANSA McAL Psychological Research Centre, on April 17, 2021. The Centre collaborated with Syracuse University and Anton De Kom University of Suriname. This event featured presentations from professionals undertaking studies on family violence.

In her presentation, **Professor Ambika Krishnakumar** of Syracuse University addressed the prevalence and nature of intimate partner violence (IPV), and the cultural norms and contexts associated with women's experiences of violence in Trinidad & Tobago, Suriname, and Jamaica. **Dr Varma Deyalsingh**, Psychiatrist and Independent Senator from Trinidad & Tobago presented "Domestic Violence: Psychological Entrapment" where he indicated that despite the increase in public awareness and state assistance, an increasing number of women are being murdered in their homes by their domestic partners.

Dr Inger van der Kooij of the Netherlands Institute for Forensic Psychiatry and Psychology, presented on "Domestic Violence Against Children in Suriname" and discussed the perceptions of corporal punishment, and highlighted the high prevalence and incidence rates of child abuse and neglect in Suriname. Jurist Maya Manohar, Institute for Graduate Studies and Research, Anton De Kom University of Suriname presented on "National response violence against children. The situation of Suriname". Her study sought to examine the degree to which social service providers believe that the existing assistance systems are responsibly addressing violence against children.

This webinar was well attended by an international audience. Two international seminars are being arranged for the academic year 2021/2022 on Crime and Victimization as well as on Suicide. The ANSA McAL Psychological Research Centre continues to collaborate with a number of international universities including Syracuse University, Hunter College, CUNY, University of Central Florida, University of Nis, and Pace University.

Positive Psychology: An International Perspective dedicated to the late Dr Anthony N. Sabga

Positive Psychology: An International Perspective by Aleksandra Kostic and Derek Chadee was published by the well-re-

spected Wiley-Blackwell publishers. The book was dedicated to the late Anthony N. Sabga, LLD and the late Professor Mihaly Csikszentmihalyi. The dedication to Mr Sabga, founder of the ANSA McAL Group of Companies, was for his philanthropic contribution towards the establishment of the ANSA McAL Psychological Research Centre at The University of the West Indies, St. Augustine Campus. Professor Mihaly Csikszentmihalyi's dedication was for his early and lasting contributions to the development of positive psychology. The book is available both in hardcopy and digital format. The book is an output of the ANSA McAL Psychological Research Centre Psychology Research Labs. The ANSA McAL Psychological Research Centre has research labs that address specific core issues. These research labs allow for student engagement at the undergraduate and post-graduate level. These endeavours have been, since their inception, a collaborative effort by students and research assistants, under the supervision of the Centre's director, **Professor Derek Chadee**.

Research Lab 1: "The Certainty of Uncertainty"

In 2021, the research lab, "The Certainty of Uncertainty" was established to investigate how individual's risk perception of COVID-19, risk propensity and risk perception of the COVID-19 vaccines may affect individual financial, social and health risk-taking. This research offers a unique approach to risk perception with the inclusion of the psychological concept signal potential. Signal potential empirically examines dread and unknown risk (Slovic et al., 1984) which has absented itself from previous psychological research on this topic. Additionally, this research investigates the novel concepts around COVID-19 which may yield pertinent insights into the population's behaviour and psychological position toward the pandemic. The findings of this study will offer insights into the risk psychology of COVID-19, and thus provide foundational links to how this

Centres & Institutes (cont'd)

plays a role in generalised and vaccination behaviour. These findings may inform health authorities on the best course of preventative action in the pursuit of a safer, COVID-19 free Trinidad & Tobago.

Research Lab 2: Juvenile Delinquency and Copycat Crime in Adolescence

This research lab examines the influence of individual, peers, and parents viewing of violent media content such as movies, video games and music. The viewing of violent media has a negative impact on behaviour which can lead adolescents to partake in delinquent behaviour and copycat behaviour, as constant exposure to violent media desensitizes children to the pain of others, reduces empathy and pro-social behaviours. The study is examining peer relationships because during adolescence individuals are usually closer to their friends as they navigate the identity formation process. Vicarious reinforcement comes into play as adolescents observe the behaviour of their close peers and may imitate negative behaviours in situations when they perceive the consequences of these behaviours to be desirable. The parents' choice of violent media consumption is also very important since the home is the first place in which socialisation begins. The research findings from this study would contribute to the literature on violent media engagement, copycat crime, and juvenile delinquency.

Research Lab 3: I see, I am, I do. The media and self on youth risk behaviours.

This research lab, using the working title "I see, I am, I do: The influence of the media and the self on youth risk behaviours", consists of three members. The initial model was developed through various meetings and theory-based discussions. A work schedule was developed outlining timeframes for each section of the paper to be completed, from the introduction to ethical submission.

Research Lab 4: Misinformation and the COVID-19 pandemic

This research examines how social media misinformation, emotions, and self-construal influence individual health decision-making towards COVID-19. It synthesises these variables to unearth the psychological mechanisms underlying the decision-making process. The research and publications generated will contribute to the understanding of health decision-making and inform policy on how to effectively communicate health information.

Psychology Seminar Series: Charting the Way Forward

The Psychology Seminar Series allows for postgraduate students to share their research to fellow students and faculty members. Postgraduate students gain feedback and provide insight into the direction and development of their research. Prospective postgraduate students are also enlightened on the standard of research activities undertaken by students. Presentations completed in the 2020/2021 academic year included:

- Comparison, the Thief of Motivation? Examining the Effects of Social Comparison on Adolescents' Academic Possible Selves and Motivated Behaviours – Presented by Ms Diana Williams a MSc Graduate on February 11, 2021.
- Attitudes towards Mental Illness among Frontline Hospital Staff – Presented by **Mr Dylan DeGourville** a MSc Applied Psychology Candidate on February 25, 2021.
- The Obesity Epidemic: Social Cognitive Predictors of Health-Promoting Behaviours – Presented by Ms Delia Brito, a PhD Candidate on March 18, 2021.
- How Peer Pressure Moderates Parenting Styles Relationship with Academic Performance and Self Esteem – Alyssa Gumansingh, Chelsea Hodge, Emily-Ann Bachan and Brigitte Alexander on April 8, 2021.

Research Series

In 2020, the Research Series was developed by the ANSA McAL Psychological Research Centre as a resource directed at expanding students' understanding and engagement with the research process. The first instalment in the Research Series was a 19-minute video explaining the processes in the preparation of a literature review and offered tips to assist students at the writing stage. This video also addressed frequently asked questions by students on preparing a literature review. The later instalments of the research series would continue in the upcoming academic year and include videos covering other topics, such as quantitative analysis, qualitative methods, and hypothesis development.

Teaching & Learning

Psychology Programme Support

To support the MSc Applied Psychology and BSc Psychology programmes, videos and brochures advertising the key requirements and gains of the programmes were developed by the Centre and posted to the ANSA McAL Psychological Research Centre's Facebook page.

Student Awards

The TATIL Prizes for Best Psychology Research Projects is an initiative by the ANSA McAL Psychological Research Centre, in seeking the support of the TATIL Group. For the last twenty-nine years, The TATIL Group has presented three prizes to the top three research groups for the course PSYC 3025 Research Projects in Psychology. The Centre is grateful to The TATIL Group for the continued support to student research. The TATIL Prizes for Best Psychology Research Projects for the 2020/2021 academic year were awarded to the following students:

First Place Prize: "Sexual activity, symptoms of depression and anxiety as they correlate with academic performance of students at the University of the West Indies". Maranda Maharaj, Jeshua Jonas, Amy Heraldo, Nalini Coeppicus and Diana Seetahal.

Second Place Prize: "The Impact of Social Media Idealised Body Imagery on Body-esteem: A Social Comparison Study on Women at The University of the West Indies, Trinidad". Shameika Parkinson, Chikara Mitchell, Micheline Sookraj and Veresia Cross.

Third Place Prize: "A Psychosocial Investigation on the Impact of Social Networking Site(s) Addiction on Social Interactions, Well-being, and Escapism of University Students". Ethan Husein, Evita Nandanlal, Catherine Reid and Andrew Joseph.

ANSA McAL Psychological Research Centre for the Most Outstanding Psychology Student Award

The most outstanding Psychology Student Award for the 2020/2021 academic year was earned by the student with the highest grades at the end of completion of Psychology degree. Candiesa Simon was awarded the ANSA McAL Psychological Research Centre Most Outstanding Student Award.

Research Writing Workshops

Two Research writing workshops for students were facilitated by PhD Psychology candidates, Mala Ramesar and Delia Brito. These sessions were held in November 2020. The agenda for the Research Writing Workshop included, how to conduct a literature search; how to write a literature review; how to plan a methodology; analysing data using SPSS, and formatting according to APA standards.

PSI CHI: International Honour Society in Psychology

The PSI CHI UWI, St. Augustine chapter has received support from Centre since the Chapter's installation in 2013. The Chapter hosted several events in the 2020/2021 academic year. These included, but were not limited to, the virtual Guild Fest's Sip and Chat Event; World Mental Health Day – a video was created outlining PTSD criteria, signs, and symptoms, causes and treatment; Health Habit Thursdays: The Psychology of Domestic

Centres & Institutes (cont'd)

Violence – a discussion of domestic violence and trauma from different viewpoints facilitated by Neola Zama, in collaboration with the Student Psychology Association (SPA), Peer Counsellors Association (PCA) and National Affairs Committee, UWI STA Guild of Students.

Other events include the PSICHI Mentorship Programme bringing together mentors and mentees to share resources; Virtual Scribbles Stories shared by persons about their struggles in life as well as their coping mechanisms; World Bipolar Day, an educational video showcasing crucial elements of bipolar disorder; and Self-Harm Awareness, a video observing self-harm awareness month.

Scholarships Received by our Psychology Students

Michaela Finch (graduated with BSc Psychology degree in 2019) received the Korean Global Scholarship (2021) to study Psychology in South Korea. She joins Curmairah Cambridge, another St. Augustine Psychology Major, who also received this award previously and is completing her studies. Stefan Rodriguez (graduated with BSc Psychology degree in 2018) received the Americas Postgraduate Excellence Award (2021) to support his studies in Psychology at The University of Nottingham.

Strategy Appraisal

The ANSA McAL Psychological Research Centre has consistently sought to streamline its operations to be consistent with the goals of The UWI. In this regard, several initiatives and ventures undertaken by the Centre through its established annual objectives and collaborations were undertaken. These included exposing students to various branches/ research areas in Psychology. Using research labs, students were provided with the opportunity to expand their knowledge and explore their specific research interests.

To further students' knowledge on the research writing process through a collaborative effort with PSICHI, the annual research writing workshop was held. This workshop provides additional information and guidance on the research writing process. While it primarily targets students enrolled in the research courses (PSYC 3028 and PSYC 3025), other students are welcomed to attend this workshop.

The Centre developed and produced a video research series on the research process. This series addresses frequently asked questions students have on conducting research. The first instalment was published on the ANSA Mc Psychological Research Centre Facebook page.

To produce high-quality and impactful research through the adoption of new and innovative approaches. The social innovation approach was utilised in developing the methodology of Bridging the C.R.I.M.E. Divide. This is anticipated to encourage the use of similar approaches by students and staff at The UWI. The Centre is currently conducting research into several areas of concern which arose out of the global pandemic including health decision-making and misinformation and social media. The Centre also utilises psychology for management of student concerns. Through PSICHI, virtual initiatives were created to assist students with stress management and maintaining general mental health. Some of these ventures were conducted on a weekly basis such as Health Habit Thursdays, and PCA's Health Series. A student driven collaboration with Ryerson University to develop solutions for juvenile crime in both Canada and Trinidad & Tobago are in its initial stages. This project was halted due to the current pandemic. It will resume at a date to be determined.

Centre for Health Economics (HEU)

For the academic year 2020/2021, the HEU, Centre for Health Economics (HEU) continued to fulfil its mandate to be a resource and technical partner to national and regional agencies through the execution of its research and capacity development agenda. The Centre continued its research thrust in the broad areas of Health Sector Programmes and Financing, Health Systems Analysis, National Health Accounts, Health Impact Assessments and Health and Economic Policy Analysis. The research projects undertaken by the Centre and the technical support provided over the course of the academic year also aligned with The University of the West Indies' (UWI's) strategic goals.

Highlights

The Centre continued to be a World Health Organisation (WHO) collaborating centre, signing an MOU with the National AIDS Coordinating Committee to support the preparation of a Health Accounts Report specific to HIV and AIDS for the OPM-NACC.

The HEU entered into a Service Provider agreement with The Global Fund to Fight AIDS, Tuberculosis and Malaria (the "Global Fund"). The Centre also signed an agreement to provide Technical Support to Selected OECs Countries to support the development of health financing system reform, develop and build capacity in using health financing progress matrices and financial protection indicators, and to develop and facilitate a sub-regional workshop on the System of Health Accounts methodology (SHA2011), leading to the creation of an online course.

During the period under review the HEU initiated a project to provide the Economic Costs of Family Violence in Trinidad & Tobago and continued another project on Improving Household Nutrition Security and Public Health in the CARICOM.

Production of the Second Edition of IMPACT: HEUBi-Annual Bulletin, with theme "Building and Adapting in the Face of COVID-19" also occurred during the 2020/2021 academic period.

The HEU hosted webinars on Sugar Sweetened Beverages: Economic Implications and Policy Options in the Caribbean, and on Social Security.

Teaching & Learning

The Centre continues to support and deliver the Health Economics courses at the BSc, MSc, MPhil, and PhD levels at the Faculty of Social Sciences through collaborative arrangements with the Department of Economics. The Centre also has teaching responsibility for the Health Economics module in the Master's in Public Health programme at the St. Augustine and Cave Hill Campuses. Members of staff of the HEU continue to provide supervision of graduate research students, specifically in the Faculty of Social Sciences.

The HEU undertook training initiatives as part of its mission to support The UWI's Strategic Goal of improving the quality of Teaching and Learning and Student Development. One programme targeted Year 2 and Final Year students of the Faculty of Social Sciences and Ministry personnel from across the Caribbean Region. The training took the form of online sessions where participants were introduced to key areas of focus and had the opportunity to interact in a virtual environment with peers and course facilitators. Training Courses included:

- An Introduction to STATA for Social Sciences Research and Policy Analysis - Module 1 and Module 2.
- An Introduction to SPSS for Social Sciences Research and Policy Analysis - Module 1 and Module 2.
- An Introduction to Microsoft Excel for Social Sciences Research and Policy Analysis - Module 1 and Module 2.
- An Introduction to Mendeley Referencing Software.

Centres & Institutes (cont'd)

Research

During the academic year 2020/2021, the HEU furthered its own research agenda as well as conducted research on behalf of regional Governments and other research institutions. The HEU also worked in partnership with regional and international agencies and formalised significant relationships with key agencies based on its wide scope of research areas.

WHO Collaborating Centre (WHOCC) for Health Economics and Financing

The HEU, Centre for Health Economics is a designated World Health Organisation Collaborating Centre (WHOCC) for Health Economics and Financing. This collaboration and other partnerships have provided opportunities for research projects and the furtherance of the Centre's mandate.

Major Funded Research Projects - Completed

Empowering Healthcare Decision Makers to Achieve Regional Needs in Sugar-Sweetened Beverage (SSB) Policies in Latin America and the Caribbean: Building a Framework to Evaluate the Disease Burden and the Cost-Effectiveness of available Interventions; and Estimating the Disease Burden in Four Countries.

Research with the Institute for Clinical Effectiveness and Health Policy (IECS) for International Development Research Centre (IDRC). Althea La Foucade, Vyjanti Beharry, Kimberly-Ann Gittens-Baynes, Samuel Gabriel, Christine Laptiste, Charmaine Metivier, Patricia Edwards-Wescott.

Health Sector: Covid-19 Economic Impact Assessment.

Research for PAHO, Trinidad & Tobago Office. Principal Investigator: Althea La Foucade. Co-Investigators: Karl Theodore, Vyjanti Beharry, Don Bethelmie, Samuel Gabriel, Christine Laptiste, Haleema Ali-Sisbane.

Major Funded Research Projects - In Progress

Technical Support to Selected OECS Countries: To Support the Development of Health Financing System Reform in the Organisation of Eastern Caribbean States.

Research for PAHO. Principal Investigators: Althea La Foucade, Christine Laptiste. Co-Investigators: Charmaine Metivier, Vyjanti Beharry, Karl Theodore, Samuel Gabriel, Don Bethelmie, Roxanne Brizan-St. Martin.

Costing of the OECS Regional Strategic Plan for HIV.

Research for UNAIDS. Principal Investigators: Karl Theodore, Christine Laptiste, Roger Mc Lean, Althea La Foucade, Vyjanti Beharry.

Improving Household Nutrition Security and Public Health in the CARICOM.

Research with UWI Mona, UWI Cave Hill et al. for International Development Research Centre (IDRC). Althea La Foucade, Karl Theodore, Vyjanti Beharry, Charmaine Metivier, Samuel Gabriel, Christine Laptiste. An interesting finding unearthed from this research is captured in the following excerpt from the Technical Report: "Whilst not exerting the most significant influence, economic factors appear to possess a reasonable amount of sway in determining dietary patterns among the survey participants in Jamaica. Of the two economic reasons captured by the survey instrument, the relatively lower cost of unhealthy foods (compared to healthy foods) was the most cited and reported by just over half of respondents (52%) who generally ate unhealthily. The relatively muted position of the cost factor may be explained by what other researchers have indicated as the existence in some Caribbean countries, of other economic considerations and cultural norms that seemed to place greater importance on food preparation time and convenience, rather than on food costs in determining dietary patterns".

Advancing Action on the Design and Specification of a National Health Insurance System in Antigua and Barbuda.

Research for the Government of Antigua and Barbuda. Principal Investigators: Karl Theodore, Althea La Foucade. Co-Investigators: Charmaine Metivier, Stanley Lalta, Christine Laptiste, Roger Mc Lean, Patricia Edwards-Wescott, Kimoy Worrell, Anton Cumberbatch.

Stakeholders & Partners

The Centre continued to form strategic alliances with Governments of the Caribbean, as well as several national, regional and international stakeholders/partners, including the Ministries of Health in Barbados, Antigua and Barbuda, and St. Kitts and Nevis; Ministry of Finance in Dominica; Ministry of Social Development and Family Services as well as Regional Health Authorities in Trinidad & Tobago; other regional Ministries of Health and Finance, The Global Fund; United Nations Development Programme, and PAHO/WHO. Such partnerships/collaborations have facilitated, in many ways (financial, technical, etc.), the coordination, promotion and integration of interventions that advance our developing Caribbean countries.

Institute for Gender & Development (IGDS)

Over the academic year 2020/2021, the St. Augustine Campus continued its policy of remote work and teaching, at times with minimal, rotating administrative staff, and other times with the campus completely closed. It has been a year like no other when the collegiality and joie de vivre of the Unit space was missing, despite regular meetings and communication across multiple platforms. To cultivate a feminist ethic of care, public outreach efforts were scaled down to preserve mental health and emotional wellness needs of the staff. Thus, despite COVID-19's

impact on the 2020/2021 academic year, the staff of the IGDS St. Augustine Unit continued to fully support the Unit's research, teaching and outreach.

In terms of research and publications, four books were published by IGDS staff and professors, and two technical reports for international organisations were completed in this period. As well, the Caribbean Review of Gender Studies, the University's first and longest-published open-access online journal, published its 14th issue, "Kuírlombo Epistemologies: Genders and Sexualities in Brazil".

It was a challenging year for students, some of whom were experiencing remote teaching and learning for the first time. The cohort taught included 10 graduate students who joined the programme in September 2020, including two Diploma students Celine Jaggernaut, Jamila Moonsammy, three MSc students Chinyere Brown, Chanel Moonsan, Renelle White (and two more who changed from the MPhil programme) Pete Roderick and Richieanne Daly, and five PhD students Elron Elahie, Jiselle Alleyne, Alicia Roberts and Linda Wiltshire.

Personal challenges because of COVID-19 were part of the student experience this year, and student's throughput was also affected by changed state policy regarding state funding of graduate studies. Nonetheless, the IGDS graduated one MSc student in 2020/2021, six more students submitted their MSc projects, and six graduate student seminars were held. Thirteen undergraduate students graduated with minors offered through the Faculty of Humanities and Education and the Faculty of Social Sciences. The IGDS used current challenges and Board of Undergraduate Studies' recommendations to adapt examination practices to make all our undergraduate courses fully assessed by coursework, to improve harmonisation of graduate courses and cross-campus offering of undergraduate courses and to begin to develop an innovative new structure for

Centres & Institutes (cont'd)

an online graduate programme. During this period, teaching staff were each responsible for full course loads of between four and six courses over the academic year and began a graduate and undergraduate programme curriculum and pedagogical review (CPR) process to increase enrolment and better integration of IGDS courses across faculties.

This year, **Dr Sue Ann Barratt** held the position of Graduate Studies Coordinator and **Dr Angelique Nixon** held the newly created position of Undergraduate Studies Coordinator, with responsibilities for CRP at those teaching levels. Two academic staff, **Dr Angelique Nixon** and **Dr Sue Ann Barratt** completed the The UWI Postgraduate Certificate in University Teaching and Learning.

The Institute undertook funded collaborations with UN organisations to work on areas of masculinities, reproductive health and rights, child marriage and early unions, and an end to violence against women and girls. Partnerships were also formed with the University of Calgary, the University of Peshawar, the International Islamic University in Islamabad, the University of Liverpool, the University of Leicester, The UWI Mona, and the Maya Leaders Alliance of Belize and CariMAN. The Institute also supported small NGOs such as La Casita and CAFRATT on survivor and pandemic related research respectively, through collaborations with Democracy International and Development Alternatives for a New Era (DAWN). Finally, in collaboration with a Commonwealth Foundation funded project, the IGDS partnered with the Fondes Amandes Community Reforestation Project (FACRP). The partnership produced a Civil Society-led Gender Sensitive Bush and Wildfire Suppression Policy. This collaboration also produced a climate change, teaching module and case study to serve the needs of IGDS in its MSc public policy curricula and the FARCP in its public information and education work.

Operations of the IGDS SAU- Remote work

The COVID-19 pandemic has touched all aspects of society including how the IGDS SAU works. On March 13, 2020, the office was closed, and, from the end of June 2020, staff proceeded on extended rotation for health and safety protocol reasons. The IGDS rostered employees to limit the number present at the office on a weekly basis. We have physically separated teams within the office on a rotation system in which certain teams are in the office while other teams work remotely. The administrative staff also work on a rotational schedule attending to the needs of the office from 8:30 am-4:30pm. The Office Attendant works daily to ensure that the cleaning needs and hygiene protocols are met during this time. The teaching staff and research assistants have been working remotely.

Teaching and Learning – Registration Comparison

Course registrations between Semester 1 & 2 declined for GEND 1103: Introduction to Women Studies. The reason for the decline may be the cancellation of face-to-face academic advising given the current environment. Faculty-based online orientation sessions were held, and it was significantly harder for IGDS to access students in ways previously done. In previous semesters, the IGDS staff and the Ignite club members actively engaged in poster presentations and pocket course-card distribution at Faculty Orientation Days, UWI Guild Fest and SPEC's Information Village. Our limitation this year was being unable to engage with students on a personal level. The Institute has attempted to improve its student engagement recognising this limitation. Our recruitment strategy involved increasing our online presence in terms of advertising posters via social media platforms. We also created virtual academic advising sessions for students via Zoom. Marketing and Communications also facilitated an orientation to the IGDS, its courses and its programmes. We also

provided a list of our courses to all Deans and Faculties, as well as targeted Heads, for their recommendation as electives. We also made use of a web platform hosted by the Faculty of Social Sciences to advertise our Semester 1 courses. IGDS has typically used graduation commemorations in October to connect to undergraduate students who are performing well in the courses, encourage them to register for the Minor, and encourage them to pursue post-graduate study with the IGDS.

Teaching Delivery and Assessment

The University has overhauled its course delivery to Blackboard Collaborate and Zoom to replace face-to-face teachings. Course assessments have been adjusted for online delivery because of the current pandemic and the introduction of remote work. The IGDS has converted undergraduate course assessments from 60% coursework and 40% exam to 100% coursework. The learning objectives of the courses remain and are aligned with each assessment to ensure students are appropriately and adequately tested on their learning, understanding and application of course materials. All skills are tested in all assignments, with skill demands increasing with each assignment, which become due as the semester develops and students cover relevant material and learn relevant skills. The original system would have tested, largely but not exclusively, recall, analysis and evaluation in the final exam, and research and application through coursework assignments.

Staff in general would prefer to return to a face-to-face mode of work and teaching when it becomes possible but are prepared to teach online for as long as possible if needed and would like to strengthen opportunities that can be created out of this period. While all courses have been adjusted to online delivery, a limitation of GEND 1103: Introduction to Women Studies would be the cancellation of the undergraduate popular actions. Engaging in the popular actions gave students an opportunity to reflect on

the manifestation of gender in their own lives, leading to a range of personal and intellectual discoveries. The activity also engaged the public because the project was set up in The UWI Quadrangle, the hub of campus gathering and activities.

Challenges

IGDS, staff members experienced many challenges over the period, including a lack of proper work equipment at home to function productively, connectivity issues and interruptions, difficulty balancing work and family. It is not to be underestimated the risk of the workers feeling isolated and under pressure. Some staff who were teleworking have children who needed care as they were not at school and needed to connect remotely to continue their schoolwork

Enrolment

The review period was an intake year for the Graduate Programme offered at the IGDS St Augustine Unit (SAU). At the beginning of the academic year, the Unit welcomed a cohort of 11 new students – two diploma students, four at the MSc level, and five PhD candidates. There were 36 continuing students, although two have since withdrawn (1 PhD and 1 MSc) and three are on official Leave of Absence. Despite these reductions the Unit welcomed three additional students at the PhD level and incorporated two transfers to the MSc program from continuing students, bringing the number back to 12. In addition to the regional graduate training sessions held on Fridays, spearheaded by the **Dr Dalea Bean**, Graduate Coordinator at the RCO, sessions were held to facilitate student support and feedback focusing on orientation and end of semester check-in sessions, and Alma Jordan Library sessions on conducting research and access during remote delivery. The Institute also facilitated ethics applications and requirements with the coordinator of the Campus Ethics Committee.

Centres & Institutes (cont'd)

Examinations and Graduation

The SAU is also pleased to report the examination of six MSc students, with two confirmed for graduation, one completing edits for resubmission, and three pending feedback from examiners. During the academic year, six students presented at graduate seminars, 5 at the MPhil/PhD level and 1 at the MSc level. All are expected to continue to progress with their work, though data gathering for several students has been stalled due to the conditions of the pandemic.

Postgraduate Webinars

IGDS St Augustine Unit Graduate students attended a series of seminars organised by the regional School for Graduate Studies and Research, which were opportunities to interact with other IGDS students across all three campuses. The seminars were on topics such as Critical Reading, Data Coding, Critical Writing, Preparing for Ethics Submission, publishing as a Graduate Student, Critiquing the Text, Stress Busters: Managing Anxiety, Stress and imposter syndrome at the graduate level, Writing a Literature Review, and building an activist graduate culture. There were also focus groups for Gender research and more.

Strategy Review

Access

The Caribbean Review of Gender Studies (CGRS)

The CGRS is the first online regional peer review journal of its kind and is staffed by the SAU. Issue 14 was published in December 2020 and is available online along with past issues at <https://sta.uwi.edu/crgs/index.asp>

Webinars & Virtual Engagements

The IGDS was able to engage the public through various webinars; these included Shouts and Whispers: Untold Stories from the Caribbean During Covid 19. Panellists included Ms Olive Edwards, Convener, Jamaica

Community of Positive Women; **Mr Devon Gabourel**, Director, Enabling Environment and Human Rights Unit (EEHR); & National Family Planning Board, Jamaica; Ms Kagina Marquis, Migrant Woman; and **Dr Angelique Nixon**, Board of Directors, CAISO: Sex and Gender Justice. The event was hosted by IGDS: Regional Coordinating Office, Mona Jamaica; Mona Unit, Mona Jamaica; Nita Barrow Unit, Cave Hill, Barbados; and St Augustine Unit, Trinidad & Tobago.

Break the Silence (BTS) Network and Campaign

On November 19, 2020 the IGDS Break the Silence Network held its first virtual Meeting & Presentation in commemoration of World Children's Day and coinciding with International Men's Day. The event attracted registrants from across the region. The feature address on Sexual Abuse in the Under 5 Population: Developing a Bystander Complicity Model as a Preventive Approach was delivered by **Dr Hazel Da Breo**, Psychotherapist, Child Protection Specialist & Executive Director, Sweet Water Foundation.

Alignment

Advocacy and Activism

IGDS is committed to supporting community networks and groups, and is a member of the Alliance for State Action to end Gender-Based Violence. In 2020/2021, IGDS has continued to partner with corporate entities to create national campaigns for awareness raising and action. Due to the Covid-19 lockdown, there was no large-scale Annual Women's Rights Rally and Walk in Port of Spain.

The International Women's Day on March 8 followed five weeks of protests and vigils across Trinidad & Tobago, due to the murder of Andrea Barratt. With the momentum and intensity of grief and anger, community groups and NGOs came together to organise a couple events on March 8, that demanded answers and policy change. IGDS supported

these events with both financial and human resources. IGDS staff also participated in online webinars and media interviews and supported calls by the youth movement and IGDS Ignite to “Write Yuh MP” including a call for government ministers to “Act Now!”

Gender and Climate Change Session

This project was done in collaboration with the Fondes Amandes Reforestation Project. We worked with over 100 students from schools across the country to do a half-day session examining how gender impacts health, food security, the care economy, technology, and natural disasters.

Social Media

The Unit continued to share content on its Instagram and YouTube accounts. On Instagram and Twitter @igdsignite and @catcallsofuwi accounts are also active as the Unit focused on street harassment and gender-based violence (GBV) using graphics developed in-house.

The EU-funded Sexual Culture of Justice

The EU-funded Sexual Culture of Justice project, with its knowledge products, research on bullying in schools, and the development of teacher training toolkit provided an ideal space to expand the research programme of the IGDS. The first year of the project included GBV training for men to champion a new culture of gender equality and non-violence in their communities and these men created video PSAs as part of the #PullUpYuhBredren campaign. The project also created a Safer Schools Teacher Training workshop with a toolkit and facilitator guide focused on preventing the culture of bullying related to sex and gender in schools. Forty-six secondary school teachers and guidance counsellors have been trained through the project thus far. The knowledge products produced by the project are invaluable teaching tools for anyone engaged in workshop facilitation and other interactive capacity building work.

Gender Equity and Human Resource Management

The IGDS designed and delivered the course Gender Equity and Human Resource Management. The need for the course was based on the difficulties faced by many organisations in managing gender-related issues. Organisations, including some of our campus-based partners proved to be willing to pay for this course. A total of 21 persons participated at the cost of \$4,400 per person.

IGDS Fact Sheets

The IGDS produced a series of brochure-type publications focusing on prevalent issues, designed to be easily shared as single spots on social media. In February 2020 IGDS published the first issue on Sexual Harassment and Consent by **Dr Angelique Nixon & Dr Sue Ann Barratt**.

Making of Feminisms in the Caribbean

In 2019/2020, **Professor Rhoda Reddock** and Catherine Shephard undertook the labelling of the extensive CAFRA photographic archive. Ms Tessa Ottley has sorted and categorised the first batch of papers and materials from **Professor Reddock** in readiness for digitising. **Professor Patricia Mohammed** has undertaken sorting and organising her own collection of papers before submitting to the archive. Ms Tessa Ottley began communications with Ms Brenda Goopeesingh to secure her papers for inclusion in the MFC archive. A review is needed post Covid-19 to devise a way forward to encourage submissions, list and secure papers or collections as well as to fund digitising of collections. MFC collections are accessible in hard copy at the West Indiana Special Collections (WISC), The Alma Jordan Library that holds a growing collection of documents collected/acquired specially for the MFC. WISC also holds various documents on feminisms in the Caribbean, available as part of other collections such as The Eric Williams Memorial Collection. Some content is available digitally on the UWISpace MCF handle <http://uwispace.sta.uwi.edu/dspace/handle/2139/43429>  MFC Synology

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managed by the digitising dept. AJL, houses and backs up the MFC collection. MFC website is meant to introduce the material available but does not list everything.

<http://sta.uwi.edu/igds/mcf/>

AGILITY

Sexual Cultures of Justice Project

"A Sexual Culture of Justice: Strengthening the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersexed (LGBTQI) & Gender-Based Violence (GBV) Partnerships, Capacity & Efficacy to Promote & Protect Rights in T&T" is an excellent example of IGDS' Impact. This human rights project is funded by the European Union and implemented by The University of the West Indies, Institute for Gender and Development Studies (IGDS). The project began in April 2017 and was extended to and completed in March 2021. The formal partners included six LGBTI and feminist Civil Society Organisations in Trinidad & Tobago: CAISO, Friends for Life, I Am One, The Silver Lining Foundation, Womantra, and the Women's Caucus. Other local and regional partners included the Caribbean IRN, Caribbean Male Action Network, the Equal Opportunity Commission, Say Something TT, and Trinidad & Tobago Transgender Coalition.

Activities Completed

The IGDS was able to create new accessible knowledge products (toolkits, research, and media) that strengthen local advocacy grounded in Caribbean theories, praxis, evidence, and analysis through the Online Knowledge E-Portal, which features outputs of the project: portal.caribbeansexualities.org

The Institute also completed GBV training for a diverse group of 15 men to champion a new culture of gender equality and non-violence in their different communities, which facilitated media creation of scripted messages and the #PullUpYuhBredren Campaign through Five Video PSAs – Men

Speak Up! Champions Against GBV – shared widely across social media with thousands of views. Four GBV Community Actions (led by men who participated in or facilitated the GBV training) were supported. These actions utilised the #PullUpYuhBredren campaign and a peer-to-peer training pedagogy. Each action included 10-20 persons and therefore the actions' impact extends to over 50 persons. Forty-six teachers and guidance counsellors were trained in two cycles of teacher training workshops. The "Safer Schools Teacher Training" toolkit and facilitator guide was developed and focused on preventing the culture of bullying of young people related to sex and gender.

The IGDS provided support for over 10 families and guardians of LGBTQI youth and 10 LGBTQI persons through Stronger Families group and individual therapy. A National Survey of Bullying and Gender Based Violence of 40 secondary schools (38 in Trinidad and 2 in Tobago) was completed with an average of 60 students per school that followed the two cycles of teacher training workshops. The total of secondary students surveyed is over 2,285 students. Data analysis and report in progress. Eighteen life-stories of working-class LGBTQI people were collected; they offer reflections on experiences with family, support systems and violence, as well as a needs assessment and ideas for social change and transformation. These Life stories are the first research of its kind and directly impacts the project's output of policy development and recommendations towards legislative action.

The Institute campaigned for legal protection for LGBTQI persons from unjust discrimination through the ongoing "Add All Three to the EOA" (a public awareness and legislative campaign to expand protections in the Equal Opportunity Act based on Age, Health Conditions, and LGBTI Status). The campaign includes four Radio Ads, first wave on four stations (61 rotations over 3 weeks), plus an Animation Video launched across social media (on Facebook over 40 thousand

views) that features prominent public voices as Champions of Add All Three campaign. Two more waves of the radio ads are planned.

IGDS developed the 2020 Alliance for Justice and Diversity LGBTQI Agenda – 13 Policy Actions, which were co-created based on research from this project and experiences/work of the AJD partners and finalised through community forums. The Institute also completed a desk review of legislative and policy-related advocacy by LGBTQI organisations in the past 5 years. Supporting research and materials on how to engage national decision makers in progress and will be made available to community members. The “Transforming Each Other’s Advocacy” Action Learning Course was facilitated with 22 participants and 7 facilitators representing 18 organisations/ coalitions from a wide spectrum of civil society working on human rights, social justice, governance, and development. This was a 6-month action learning course held from October 2019 to March 2020 in collaboration with UNAIDS Caribbean, Lloyd Best Institute, and two other EU-funded projects (Veni Awpan - CSOs for Good Governance; Cropper Foundation - CSOs for Good Environmental Governance). The course included five day-long sessions (with specialised workshops on Governance and Mobilisation, and Communication and Advocacy Capacity Building), as well as mentorship coaching and collaborative decision making on funding and support for several action campaigns. The action campaigns were co-created through the course and meant to be completed by March 2020, along with the final event for the course, but all had to be postponed because of the COVID-19 lockdown. Therefore, one final event remains for the TEOA course postponed to the end of the project and the action campaigns are in progress or changing strategies. All the project activities are connected and lead into these final activities (in progress), which have been delayed due to the extenuating circumstances of the COVID-19 Pandemic.

Spotlight Initiative Programme to End Violence Against Women and Girls

Assessment and Alignment of the Health and Family Life Education (HFLE) Curricula and Teacher Training.

This project aims to prevent family violence by assessing and updating the current Primary and Secondary School Health and Family Life Education (HFLE) curricula to ensure life skills around sexual and reproductive health and family violence is well integrated. Specifically, the project will assess the current primary and secondary school HFLE curricula against international standards, and the Break the Silence toolkit. Based on findings and informed by the regional formative assessment and M&E framework, amend the curriculum accordingly and in line with the international standards ensuring family violence is well integrated. Training will be conducted to equip over 200 teachers and principals with the necessary tools to deliver the revised HFLE curricula around family violence. The IGDS collaborated with the School of Education at the SAU Campus for this project, particularly with three education/ curriculum and HFLE experts.

The project activities commenced in October 2020 and will end in December 2021 and will take place in the 3 regions of Tunapuna/Piarco, Rio-Claro/Mayaro and Tobago. From November 2020 to January 2021, the project team focused on reviewing and assessing the current curricula to identify the gaps of family violence. During February to May 2021, the team edited and updated the current curricula to create a revised age-appropriate curricula that included family violence. The draft of the revised curricula is being reviewed by UN agencies and key stakeholders while the team is preparing for consultations across the 3 regions. At the end of the project, it is expected to be able to create and disseminate a revised age appropriate HFLE curriculum for both the primary and secondary school level; increase awareness of family violence and comprehensive sexuality education amongst teachers, principals, key stakehold-

Centres & Institutes (cont'd)

ers and parents; and equip and strengthen the capacity of teachers and principals in three geographic areas (Tobago, Piarco/Tunapuna and Rio Claro/Mayaro) with the necessary tools to deliver the revised HFLE curriculum in the area of family violence. Additionally, it is expected that there will be an increase in the number of trained HFLE teachers in the 3 geographic areas; as well as an increase in advocacy for strengthening and mandatory implementation of the HFLE curriculum in schools to advance gender equality and empowerment.

Outreach intervention for Male leaders and Faith-Based Leaders/Influencers as champions of gender equality with zero tolerance for family violence.

The specific purpose of this project is to build a cadre of male and faith-based leaders in each community (in the three regions of Tunapuna/Piarco, Rio-Claro/Mayaro and Tobago) who will serve as champions of gender equality with zero tolerance for family violence. This will be done by, training 120 men using two community-based interventions: the Partnership for Peace (PfP) Batterers Intervention Manual and the UN Women Foundations Programme Methodology for preventing GBV, and designing and implementing an outreach and awareness intervention among men and boys and FBO leaders in response to family violence. The training is organised to be conducted across three cohorts over a seven-week period (two sessions per week). Cohort 1 had a total of 21 men (Age Range: 30 – 65) who were trained during April and May 2021 and who are currently rolling out their community outreach plans. The training was conducted by 4 trained facilitators (facilitators for the PfP were Ms Kimberly Gilbert and **Mr Shane Joseph**, and for the UN Foundations Programme were **Dr Safeeya Mohammed** and **Mr Bertrand Mosses**).

Creating an intersectional Caribbean model of behavioural and cultural change that will be developed in cooperation with CSO partners.

This is a collaborative project funded by UNFPA Regional Office, UNICEF Regional Office, and executed by IGDS (implementing partner), CariMAN and Caribbean Alliance of National Psychological Associations will be partners. The objective of this programme is to develop a model specifically tailored to the Caribbean that addresses the identified gaps in prevention programming in the region. The model will serve as a foundation for the Regional Spotlight Initiative Communication for Development (C4D) interventions, but also function as a conceptual framework for the design of other Caribbean sustainable social change interventions to prevent VAWG across the region. The development of the Model will involve identifying and analysing harmful gender norms in the Caribbean and examining how these norms developed to identify strategies to change them, as well as identifying positive gender norms that can be strengthened to guide future interventions. The model takes a lifecycle approach, so that it can be used to guide behaviour change interventions targeting men and boys at different stages of life from childhood to old age. Development of the Model will therefore require an analysis of influencers (factors and figures) that influence men and boys in the Caribbean during different stages of their lives, and the shifting levels of influence that these persons and factors have on their behaviour throughout the lifecycle. This project commenced in March 2021 and will end in December 2021.

Intimate Partner Violence (IPV) in the Workplace

This is a collaborative implementation strategy for the policy, a first of its kind for the Caribbean. This project seeks to obtain baseline qualitative and quantitative data to understand employers and employees' experiences of IPV in the context of work, workplaces, work-family balance, co-worker relations, productivity, and services, and to get intervention recommendations from employers and employees. The project will

be rolled out with member companies within the American Chamber T&T (AMCHAM). The implementation involves a survey on Gender-Based Violence circulated to the employees of participating organisations to get an idea of the incidence of Gender-Based Violence as experienced, reported or discussed by employees.

The data from the survey is used to tailor a workshop on Domestic Violence and Gender-Based Violence. This workshop comprises a three-hour workshop, at which a facilitator will take a group of employees through understanding what is Domestic Violence and Gender-Based Violence, sharing experiences and discussing what they would like to see in a Domestic Violence in the Workplace Policy. This workshop will be facilitated by a member of the Coalition Against Gender-Based Violence and IGDS and has a minimal cost of TT\$2000.00 attached to it for the CSO. Given the current circumstances of COVID-19, this workshop is to be held virtually. Following the presentation, a representative from the company (ideally from the HR Department) will be asked to keep in touch with AMCHAM and IGDS personnel who will guide and support the company representative in developing the Domestic Violence in the Workplace Policy.

The IGDS and CADV conducted two 2-hour workshops thus far for this initiative. The first workshop was held on December 9th, 2020, with Phoenix Park Gas Processors Limited. A total of 13 employees participated (four males and nine females) across various Departments including: Administration, Business Development, Lab Operations, Public Relations and Commercial. The post-workshop feedback survey revealed that 75% of the participants felt that the workshop was useful while 50% shared that it was relevant. Eight of the 13 participants said they left the workshop with actionable plans for policy implementation. The second workshop was held on April 9th, 2021, with the Heroes Foundation, a Non-Governmental Organisation. A total of 14 employees participated (five males and nine females).

Gender and Climate Change Policy Initiative

The IGDS & Fondes Amandes Community Reforestation Programme (FACRP) project funded by the Commonwealth Foundation has been reengineered considering COVID 19 limitations. The IGDS will collaborate with FACRP towards the development of a draft policy on Forest Fires Management and Suppression as a component of the broader Gender and Climate Change Project. IGDS will be required to provide technical support to the policy drafting process. The IGDS will guide data collection and analysis (design data collection tools, assist in data collection logistics, identify policy priorities and analysis of data). Draft Policy Gender and Climate Change (Bush Fires and Flooding) Teaching Module's document to be compiled by September 2020.

Break the Silence Project

In January 2020, the IGDS was approached by the Organisation of American States / Pan American Development Foundation (OAS / PADF) UWI Open-hand initiative to become a partner in the Migrant Woman and Children component of its UWI-wide multi-disciplinary project designed to address the needs of regional Spanish-speaking migrant communities. The BTS Toolkit was identified as an instrument to be used by service providers working with migrant communities to deal with the challenge of child sexual abuse in Trinidad & Tobago and Guyana. Towards this end, the IGDS undertook the initiative to convert the BTS migrant into a Spanish language resource. This Spanish-language Break the Silence (BTS) Toolkit is designed to support trainers, teachers, social workers, government officials and civil society actors respond to issues of Gender Based Violence (GBV) and Child Sexual Assault (CSA) particularly as it affects migrant and mobile populations in Guyana and Trinidad & Tobago.

The BTS attended the Women of Substance Boy's Symposium in Tobago on March 1, 2020, to engage young boys on masculinity and violence against women and girls. The BTS hosted a BTS poster making event

Centres & Institutes (cont'd)

at the CREDO Drop In Centre that supported the women and children of East Port of Spain to develop messages for the IWD rally on March 5, 2020. The SERVOL, El Socorro Beauty culture class visited the on 6, March 2020 to learn about IWD and create posters and messages.

Research

UNDP SGP Project - Capacity building in Sustainability, Gender and Social Inclusiveness for NGOs

STACIE St. Augustine and the Engineering Institute of the Department of Mechanical Engineering approached the IGDS, to collaborate on a UNDP/SGP project designed to enhance the capacity of environmental NGOs and Civil Society organisations to address issues of social inclusion within their organisations. This initiative will require the IGDS to undertake the development and delivery of several training modules on Gender and Social Inclusiveness for NGO's.

IGDS Research on the Regional Women's Movement Response to the COVID 19 Pandemic

Towards framing of a Gender Aware Understanding of the Impact of the Pandemic

Researchers: Ms Khadijah Pierre and **Mr Marcus Kissoon**

The IGDS SAU is in the process of collecting data on the response of the regional Women's Movement to the COVID 19 pandemic. The first phase of this project is the distribution of a questionnaire to be completed by various Civil Society Organisations and NGOs to be followed by the interview stage. Based on the data collected via the questionnaires, select groups will be interviewed for a more detailed understanding of the challenges, responses, emerging vulnerabilities, and new areas for programming opportunities which became evident as these organisations worked to address COVID 19.

A study on Engaging Men in the Reduction and Eradication of Violence Against Women and Girls in the Caribbean (The Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Suriname and Trinidad & Tobago) for the Inter-American Development Bank.

Researchers: **Dr Gabrielle Hosein** and Tricia Basdeo

The objective was to conduct a desk review of the existing data and best practices on VAWG in the region, identify best practices to reduce and eradicate VAWG, including but not limited to national laws and policies, access to services including justice, prevention mechanisms and interventions, and efforts towards eradication and make a business case for the engagement of men in preventing and eradicating VAWG. IGDS participated in the Regional Policy Meeting on masculinities in Jamaica in April 2019.

CSOs for Good Governance – European Grant in partnership with United Way, CANARI, Network of NGOs, WINAD and Environment Tobago

Researchers: **Dr Gabrielle Hosein** and Tricia Basdeo

March 2017 to February 2020

Under the project CSOs for Good Governance: Enhancing civil society's contribution to governance and development processes in Trinidad & Tobago, the IGDS was awarded a small grant of \$50,000TT to conduct work on "Advancing Partnerships Toward Gender Responsive Budgeting in T&T." This project is part of the three year project on the development of a Gender Justice Scorecard for Trinidad & Tobago. The project is expected to last four (4) months. In the first phase the IGDS worked with Gwendoline Williams and Maria Roberts on the GJ Scorecard project. Phase 1 of the project, capacity building training for staff at the MHUD, took place in 2019. We are now working on rolling out the second phase. The second phase of this project is to develop a MOU between the IGDS and the Ministry to provide the cooperative framework to develop initiatives to advance gender mainstreaming and gender responsive budgeting in the operations of MHUD

and, by extension, provide leadership and guidance, based on lesson learnt, for gender mainstreaming in the wider Public Sector in Trinidad & Tobago. This project is the first of its kind for Trinidad & Tobago and situates the MHUD to be the first Ministry to adopt a state-led approach to Gender Responsive Budgeting.

Women Gender Water Network (Ongoing)

The WGWN was approached by the ALIARSE, a non-profit organisation based in Costa Rica that promotes public-private partnerships for development, to facilitate a community water access project in a selected local community. This initiative forms part of a wider regional project embarked upon in 2018/2019 around access to drinking water for low-income communities in Latin America. The objective of the broader project is to provide water treatment and purification systems to benefit vulnerable communities in the 10 participating countries. In the Caribbean, the territories identified will include Dominican Republic and Trinidad & Tobago. In Central America it includes Costa Rica, Guatemala, El Salvador, Honduras, Nicaragua and Panama; and South America will be based in Colombia and Ecuador. A project proposal is being finalised in collaboration with the Water Resource Agency the Adopt a River programme. The communities identified for project activity are Matelot and Brasso Seco.

PADF / BTS Bahamas Training

BTS Campaign completed two training sessions focused on post-disaster vulnerabilities experienced by Bahamians following Hurricane Dorian, especially those within the Haitian migrant community. PADF and IGDS provided training to teachers of primary and secondary schools in Abaco, Bahamas on 2nd and 3rd December 2020. The training was an adaptation of the revised toolkit. It was well received by both participants and funders. Follow-up sessions were carded to take place in December 2020 and January 2021, however the logistics of the training rollout proved to be impossible for session planners in the Bahamas, given the challenges following hurricane Dorian.

IGDS / PADF Break the Silence adapted Tool Kit Roll-out - Training of Trainers in Guyana, Trinidad & Tobago (Phase 1)

The IGDS, with the support of PADF facilitated eight three-hour Train the Trainers sessions over the period of training to service providers and civil society representatives involved in providing services to the Spanish-speaking migrants in the three territories. Due to COVID19 restrictions, all sessions were delivered virtually via the Zoom interface and hosted a maximum number of 40 participants per session. The territories represented by the participants were Trinidad, Tobago, and Guyana. Organisations responsible for project coordination are the Institute for Gender and Development Studies (Project oversight and Trinidad-based training), ChildLink (Guyana-based training) and Women of Substance (Tobago-based training). Specific to the content of the Rompe El Silencio Manual, the objectives of the training are to equip a core group of master trainers with a comprehensive understanding of the material within the toolkit and the ability to deliver training to groups who may call on their organisations to provide support for work around Child Sexual Abuse (CSA) within the migrant communities.

IGDS / PADF Break the Silence Adapted Tool Kit Roll-out - Training of Trainers in Guyana, Trinidad & Tobago (Phase 2 Champions Facilitate)

After the first phase of workshops, in accordance with the objectives of the training, a core group of trained intermediate trainers (qualified during phase 1) facilitated sessions tailored to different key audiences to demonstrate their ability to provide support for work around Child Sexual Abuse (CSA) within the migrant communities utilising the material and content provided within the BTS Manual. This second phase of training took place from April 26, 2021-June 10, 2021.

Centres & Institutes (cont'd)

Institute of International Relations (IIR)

Director's Summary

Academic Year 2020/2021 has been a testing time for the Institute of International Relations (IIR) as indeed for the entire UWI. During Semester One 2020/2021, the St. Augustine Campus operated with a scaled down physical presence of staff and 100% virtual delivery of teaching and other academic services. During Semester 2, by May 15, 2021 there was the re-imposition of a public health state of emergency. While the IIR maintained an active digital presence and outreach, certain projects and initiatives were postponed to a more propitious time.

The IIR has faced a challenging financial situation with major reductions to its approved budget. Consultations and plans are underway to adjust operations and transition towards greater economic viability. This exercise has been rendered more complex in the pandemic environment. Despite the challenges in 2020/2021, the IIR maintained full delivery of all three academic programmes and the award of its postgraduate diploma, MSc and PhD degrees. Notably one MPhil and four PhDs were awarded in the 2020/2021 period. There was an impressive number of high-quality public events, and in Semester 2, via digital technology, the IIR provided free access to all its in-course guest lectures, Diplomatic Dialogues, panel discussions and other webinars. There was an enthusiastic response from public officials, individuals, alumni, and the Institute's regional and international networks. This gesture raised the IIR's visibility as a national and regional repository and distributor of knowledge and helped to attract new local and international students in the following year.

The IIR also participated in a new international collaborative research project on Climate Change and Community Responses (via the work of **Dr Michelle Scobie**) and contributed to a UWI STACIE capacity-building project with the Ministry of National Security

(via the work of **Professor Jessica Byron** and **Dr Michal Pawinski**). Also of note is its strategic partnership with the Caribbean Policy Consortium (CPC), a network of academics, policy advocates, public officials and private sector representatives from North America and the Caribbean who work to strengthen United States-Caribbean relations and raise the visibility of Caribbean development concerns in the partnership. Two major webinars were organised by the IIR and the CPC in June and September 2021 respectively and the IIR had previously organised in December 2020 a webinar "The US Presidential Elections Outcome: Implications for the Caribbean" which attracted an audience of 164 regional and international viewers. The Diplomatic Academy of the Caribbean (DAOC) rolled out a series of webinars which explored significant developments in Caribbean international trade and diplomacy, and it offered a suite of new training modules on Consular Relations, Climate Change Negotiations and Risk Management for Natural Disasters. These innovations and the transition to digital delivery of its professional training modules led to a significant increase in the overall registration numbers and in the regional and international representation of participants in the DAOC programmes. Academic staff have continued to produce high quality and relevant academic and technical publications, and to partner with international organisations and other local and regional entities in preparing technical reports and policy briefs geared to address the multiple challenges facing the Caribbean and the global community. They have all contributed their expertise to a wide range of online discussions, public lectures and academic conferences.

In sum, the IIR is confronting the current era with determination, energy and a focus on innovation and renewal in all its activities. A Quality Review was completed in 2020/2021 and the Institute is currently working to implement the recommendations of the Review Report. Likewise, it is completing an extensive review, revision and updating of its academic programmes.

Student Matters

Achievements & Awards, Enrolment, Graduation

Between 2020/2021 and 2021/2022, some 10 percent of the IIR student body consisted of international and regional students. This marks some progress in the drive towards boosting the IIR's re-internationalisation. The IIR engaged in a very successful online Summer School collaboration with the University of Geneva Centre for Children's Rights from June 21 – July 02, 2021, "Children at the Heart of Human Rights". Four scholarships were awarded to UWI students and young professionals to participate in this Summer School. The recipients were Kobina Wilson and Melissa Dassrath from the IIR, and Mala Ramesar and Tracy-Ann King from the Faculty of Social Sciences Departments of Behavioural Sciences Sociology and Psychology programmes. The IIR collaborated with the University of Geneva Centre in organising and chairing a webinar session on Children's Rights in the Contemporary Caribbean, and in facilitating a UWI Mona SALISES session on Budgeting for Children's Rights and the Attainment of SDGs in the Caribbean delivered by **Professor Aldrie Henry-Lee**.

Registration and Throughput

Registration numbers have been affected by lower recruitment, and by throughput issues. One fallout of the pandemic and its associated social and economic pressures has been that some students have been obliged to take time out from their programmes or switch to part-time registration. Several students engaged in MPhil or PhD research or in the preparation of MSc Research papers have experienced delays and have requested extensions of time to complete their projects. In 2020/2021, 10 PG Diploma candidates were awarded their degrees, three with Distinction. Fifteen MSc Global Studies candidates were awarded their degrees, six with Distinction. There was one MPhil award of degree and three PhD awards. Throughput in the MPhil/PhD programme continues to

move in a favourable direction, with three MPhil registrations having been upgraded to PhD registrations during 2020/2021.

Programmes

Diplomatic Academy of the Caribbean

The Diplomatic Academy has complemented the work of the IIR by offering its own series of webinars during 2020/2021, all of which were very focused on priority policy themes for Caribbean states. All were well attended and received very favourable feedback. The materials generated for the webinars constitute a significant learning resource that remains on the DAOC's website as a repository for consultation by students and the public.

UWI STA Model UN Club

Dr Georgina Chami of the IIR continued to provide faculty leadership for this co-curricular student activity at the UWI STA Campus. Bi-weekly meetings of the Club were held via Zoom during 2020/2021. The meetings provided updates on club developments and engaged the membership and the wider student body in a series of webinars and discussions on human rights, global health issues, food security issues, Climate Change, gender issues, and trade and economic development themes. The Club participated in a Virtual Guild Fest in September 2020 and organized webinars, often in collaboration with other student and national youth organizations throughout the rest of the academic year 2020/2021.

Public Outreach Events

As part of the push to raise the Institute's visibility, increase national and regional awareness of its considerable value as a repository of knowledge, expertise and learning resources, and to boost the marketing of its programmes, the IIR decided in Semester 2, 2020/2021 to throw its virtual doors open, and to offer the public digital access to selected in-course guest lectures. This is in line with Axis One - ACCESS of the UWI Strategic Plan 2017 – 2022. The initiative received a very

Centres & Institutes (cont'd)

favourable response in terms of interest and participation. By way of illustration, the Ministry of National Security requested access for over 30 employees to the guest lectures on Caribbean and National Security themes organised by **Dr Michal Pawinski** in the Specialised Seminar on Caribbean Security Issues. The IIR Open Lecture series included topics on Global Governance and the Emerging Powers, International Trade and Development, Global Health and Pandemics, Climate Change and Food Security, CARICOM Regional Integration and many more contemporary themes and issues. The lectures took place between March 4 and April 8, 2021.

In addition to the Open Lecture series, the IIR offered its usual rich menu of public lectures, diplomatic dialogues, and webinars. The switch to digital delivery of these events tremendously boosted local and international attendance, participation, and visibility of the IIR. During Semester I, 2020/2021, the Diplomatic Dialogues and lectures had an estimated average attendance of 30 – 60 people while attendance at the webinars held in both semesters fluctuated between 164 and 70 attendees.

The IIR, working in collaboration with the Caribbean Policy Consortium staged two webinars, the first on June 17, 2021 “Governance and Electoral Continuity and Change in the Caribbean: Retrospect and Prospect” and the second as an inaugural public event for students and the UWI community for 2021/2022 academic year. It was held on September 9, 2021 on the topic “US-Caribbean relations: Opportunities for Strategic Engagement”. The first event attracted an audience of approximately 60 people and the September webinar had an audience of approximately 100 persons.

Strategy Review

The IIR is preparing an Action Plan, Implementation Report for presentation to the IIR Board and Academic Board during Semester 2, 2021/2022. Receipt of the report

and in follow-up action were delayed because of general operational challenges related to the pandemic. Curriculum and Paedagogical Review documents were completed, endorsed by the Faculty of Social Sciences, and are currently being reviewed by the Centre for Excellence in Teaching & Learning (CETL) and the Office of Graduate Studies & Research (OGSR), before it goes to the Campus Committee for Graduate Studies in Semester 2, 2021/2022. Efforts will be continued to follow up and complete approval and introduction of revised PG Dip/MSc curricula for AY 2022/2023.

The IIR updated the PG Diploma Specialised Seminar on Security Studies and delivered one new MSc course. Three new modules were developed and launched by the Diplomatic Academy of the Caribbean in 2020/2021. However, delays occurred in receipt of report and in follow-up action due to general operational challenges of pandemic. Preparation of three new or revised MSc courses is planned for 2022/2023.

In 2020/2021, the IIR PG Dip and MSc programmes, likewise MPhil/PhD seminars and vivas were 100% virtually conducted. Likewise, the Norman Girvan Library serviced the needs of its users primarily by remote means supplemented by pick-up arrangements for some materials. Preparation of three new or revised MSc courses is planned for 2022/2023.

Thirty-four publications by eight fulltime academic staff members occurred in 2020/2021, in contrast to 27 publications by nine full-time staff in 2019/2020. One MPhil degree and four PhD degrees were awarded for 2020/2021.

The IIR prepared an action plan for alumni engagement and updated alumni records. An Alumni Steering Committee was established and outreach to alumni, with the objective of establishing IIR professional sub-chapter of UWI AA St. Augustine chapter is planned for 2021 - 2023.

The Institute increased investment in marketing of IIR and DAOC programmes, modules: evidence of significant increase in DAOC module enrolments with expanded curriculum and virtual delivery (registration meeting or significantly exceeding minimum budgetary requirements, international/ regional registration ranging from 90 – 50% of total numbers); evidence of increased regional and international student registration in IIR PGDip and MSc programmes with virtualisation of programme delivery (MSc 7% regional/ international students, PhD 66% regional/ international students). Despite successful remote delivery of IIR programmes, and new digital marketing initiative, prevailing social and economic pandemic conditions 2020/2021 produced decline in overall student registration. Continued focus on marketing and outreach to regional/ international markets, likewise on strengthening remote technologies for engagement with all students is planned for 2021/2023.

Two DAOC modules were launched in 2020/2021 on Climate Change Diplomacy, and on Natural Disasters and Risk Management. The IIR was represented by UWI Principal Investigator **Dr Michelle Scobie** in the CCEHN Project Community Collective Action to Respond to Climate Change influencing Environment-Health Nexus. A CLACSO/ IIR workshop on Environment and Climate Change was postponed due to pandemic challenges and constraints but is expected to take place in 2021/2022.

Under a 2020 MOU with University of Geneva, the IIR collaborated with UNIGE Child Rights Centre on organisation of UNIGE Summer School on Children's Rights June 25 – July 4, 2021, contributing segment on Children's Rights in the Caribbean. Four scholarships were provided to UWI students to participate in the Summer School. The Institute participated in the Economic Commission for Latin America and the Caribbean (ECLAC) Research Project on South-South Cooperation in Latin America and the Caribbean, production case studies of Barbados and Jamaica.

There is planned exploration of ongoing collaboration with UNIGE 2021/2023. DAOC ongoing exploratory talks on collaboration with other diplomatic training entities will continue in 2021/2023.

Other projects involving the IIR included:

- UWI STACIE project with T&T Ministry of National Security Capacity-Building Project on Future Threat Assessment: IIR organisation of Strategic Threat Assessment Workshop and supervision of policy paper
- Contribution to CCEHN research project
- IIR/CPC collaboration on webinars 2021
- DAOC/IIR collaboration with Embassy of Mexico and Mexican Diplomatic Academy on diplomatic training opportunities and Mexico-Caribbean cooperation academic events.

Centres & Institutes (cont'd)

Distinguished Visitors

His Excellency Juan Aníbal Barria

Ambassador
Embassy of Chile

His Excellency Dr Richard Bernal

Former Pro Vice-Chancellor Global Affairs
The UWI

Professor Alison Brysk

Mellichamp Professor of Global
Governance
Global and International Studies Program
University of California, Santa Barbara

Dr Samantha Chaitram

Research Manager
Trinidad & Tobago Police Service (TTPS)

Dr. Don Charles

Economic Research Consultant; Policy
Development Specialist,
Ministry of Trade and Industry, GORTT

Dr Fabrice R. Fontaine

Scientific Director
Volcanological and Seismological
Observatory of Martinique (OVSM-IPGP)

Dr Cary Fraser

Associate Professor of Government
and Justice Studies, Appalachian State
University, Boone, North Carolina

Professor Emilio Pantojas García

Senior Researcher and Director
Institute of Caribbean Studies
Universidad de Puerto Rico, Río Piedras

His Excellency Dr Patrick Ignatius Gomes

Ambassador (ret'd) and Former Secretary-
General, African, Caribbean and Pacific
Group of States (ACP)

Dr Anthony P. Gonzales

Senior Honorary Fellow, IIR

Ms Vashti Guyadeen

Chief Executive Officer
Trinidad & Tobago Coalition of Services
Industries (TTCSI)

Dr Kusha Haraksingh

Honorary Consultant
Office of the Vice-Chancellor, The UWI

Mr Sheridan Martin Hill

Attorney-at-Law, Police Officer
Trinidad & Tobago Police Service

Dr Martin Hughes

Lecturer
Department of Food Production,
The UWI, St Augustine

His Excellency Errol Humphrey

International Trade and Development
Consultant

Mr Ronald Jackson

Head
Disaster Risk Reduction & Recovery Team
for Building Resilience
United Nations Development Programme
(UNDP)

Mr Callixtus Joseph

Regional Crime and Security Strategy
Coordinator, CARICOM Implantation
Agency for Crime and Security (IMPACS)

Dr Joy St. John

Executive Director
Caribbean Public Health Agency (CARPHA)

Dr. Erouscilla Joseph

Director
The UWI Seismic Research Centre

Professor Andy Knight

Professor, University of Alberta, Canada

Mr Kishan Kumarsingh

Multilateral Environmental Agreements
Unit,
Government of Trinidad & Tobago

Dr Joan Latchman

Seismologist
The UWI Seismic Research Centre

Professor Patsy Lewis

Visiting Professor, International and Public
Affairs, Watson Institute for International
and Public Affairs, Brown University,
United States of America

Professor Iván Ogando Lora

Director
Facultad Latinoamericana de Ciencias
Sociales, Programa República Dominicana
(FLACSO-RD)

Dr Taraleen Malcolm

Advisor, NCDs and Mental Health
Pan-American Health Organisation (PAHO)

Dr Roberto Moretti

Scientific Director
Volcanological and Seismological
Observatory of Guadeloupe (OVSG-IPGP)

His Excellency David Francisco Malaga Ego Aguirre

Ambassador, Embassy of Peru

Ms Megumi Maekawa

Second Secretary, Politics
Embassy of Japan

Her Excellency Xoliswa Ngwevela

High Commissioner
High Commission for the Republic of
South Africa

Mr Alain Ponce Blancas

Research and Communication Officer
The Agency for the Prohibition of Nuclear
Weapons in Latin America and the
Caribbean (OPANAL)

Mr Leo Titus Preville

Programme Manager
CARICOM Single Market and Economy
Unit, CARICOM Secretariat

Mr Joel Richards

International Trade Consultant, Senior
Advisor
Organisation of Eastern Caribbean States

Ms Elizabeth Riley

Executive Director
Caribbean Disaster Emergency
Management Agency (CDEMA)

His Excellency Arun Kumar Sahu

High Commissioner
High Commission for the Republic India to
Trinidad & Tobago

Ms Kay Sealy

Director
Ministry of Foreign Affairs and Foreign
Trade, Barbados

Professor Donald Simeon

Director
Caribbean Centre for Health Systems
Research and Development (CCHSRD),
The UWI

Mr Sanjin Soldatić

Political Officer
European Union Delegation to Trinidad &
Tobago

His Excellency Ransford Smith

Former Deputy Secretary-General
Commonwealth Secretariat

His Excellency Rodrigo do Amaral Souza

Ambassador
Embassy for the Federative Republic of
Brazil to Trinidad & Tobago

Ms Alana Wheeler

Director
Counter-Trafficking Unit, Ministry of
National Security

Ms Natalia Zhurina

Research and Education Officer
The Agency for the Prohibition of nuclear
weapons in Latin America and the
Caribbean (OPANAL)

Centres & Institutes (cont'd)

Seismic Research Centre (SRC)

The UWI Seismic Research Centre (SRC) is the regional institution responsible for surveillance of, and fundamental research into volcanoes and earthquakes for the English-speaking islands of the Eastern Caribbean. The UWI-SRC has a much broader mission than most research agencies, with responsibilities that include monitoring of geophysical activity, research, warnings and outreach and postgraduate teaching. The SRC provides the governments of its nine contributing territories with accurate and up-to-date information about earthquake, volcanic and other geologic activity, including 19 live volcanoes, in the Eastern Caribbean. The Centre has been providing these services for over 65 years. Its work has and will continue to have direct impact on vulnerable island communities throughout the Eastern Caribbean. All aspects of the work undertaken by the SRC are of direct and immediate relevance and importance to public safety and sustainable development in the region.

The income received from our contributing territories continue to be inconsistent and provide only sufficient funds for routine monitoring (i.e., operation of a minimal seismic network). We continued to lobby vigorously during the year for payment of outstanding debts. All other work, including most research, major developments in the network and outreach, were undertaken through grant funding mainly from external sources or from applications to the SRC Departmental Consultancy Fund (DCF).

Seismicity in the Eastern Caribbean linked to volcanic and subduction processes persisted with more than 23,000 events recorded during the reporting period. Almost 75% of this seismicity was related to the La Soufrière volcano, St. Vincent eruption during the period January and April 2021. Around 6,000 events were related to the subduction process, which is in close agreement with the events recorded in previous years.

There were 201 earthquakes recorded above magnitude 3.8, with the largest magnitude 6.0 off the coast of Antigua/Barbuda on 26 March 2021. High level seismic activity is observed near UK/US Virgin Islands, off the SE coast of Antigua/Barbuda, off the NE coast of Barbados and West of Trinidad, in the Gulf of Paria. Besides the magnitude 6.0 event registered, we recorded six events in the range 5.0 – 5.9 and 96 events in the range 4.0-4.9. Whilst it is not possible to say definitively when the next great earthquake would occur in the region, the time since the last one is now more than 170 years ago. It should be noted that regional seismic and volcanic activity has been elevated for several years. For this reason, monitoring programmes continue to be enhanced, promoting the legislation of building codes continues and maintaining critical education and outreach to ensure adequate detection and seismic hazard and risk capability, and better-informed population. On 27 December 2020, the La Soufrière volcano, St. Vincent began a dome building eruption. This required the rapid deployment of staff to St. Vincent to augment the volcano monitoring network and establish on-island monitoring at the Belmont Observatory. Staff rotations to support on island monitoring were carried out during the period January to November 2021. After 10,165 volcanic events, the volcano moved to explosive activity over the period 9 - 22 April 2021, there were 32 explosions recorded. At least 16,150 volcanic events were recorded during the explosive period. The volcano is currently at Alert Level Yellow and monitoring is ongoing.

The Dominica and Saint Lucia volcanic complexes recorded above background seismicity. Other volcanic systems in the Lesser Antilles arc remained at background levels, including Soufrière Hills volcano, which is constantly monitored by the Montserrat Volcano Observatory (MVO). All systems are continuously monitored to identify any escalation of activity that may arise.

Students

Postgraduate Programme

During the reporting period, the SRC's Postgraduate programme included a total of six postgraduate students employed as Research Assistants working on projects that contribute to our key areas of research and monitoring. Of these, three were registered for postgraduate degrees in Seismology and two for postgraduate degrees in Volcanology. One other postgraduate student was part of a joint project in collaboration with the Department of Geography.

Research & Innovation

Volcanology

Development of the myHAZ citizen science system.

This project was supported by the British Geological Survey NC-ODA grant NE/R000069/1: Geoscience for Sustainable Futures, with input from the following BGS Challenge Areas: Multihazards and Resilience, Digital and Global. It involves stakeholder awareness and participation in the development of the prototype citizen science 'myHAZ' platform, which consists of three components: (1) a citizen science smartphone app for gathering multihazard observations and providing users with a 'quick glance' of ongoing hazards, environmental change and impacts; (2) a management dashboard to manage and respond to incoming observations in-country, and; (3) a web portal for exploring, visualising and downloading data collected by the app.

Volcano-Ready Communities in St. Vincent

Project leader: **Professor R. Robertson**

This is a project funded by a grant of US\$618,700 from the Community Disaster Risk Reduction Fund administered by the Caribbean Development Bank that is being done in St. Vincent in collaboration with the National Emergency Management Organisation of St. Vincent and the Grenadines. It involves the provision of scientific information and its downscaling to support community level volcano contin-

gency planning, community-led multi-hazard mapping and capacity building for disaster risk reduction. This project played a significant role in our response to the La Soufrière eruption in providing financial and monitoring equipment resources to SRC.

UK Global Challenges Research Fund (GCRF). Caribbean Resilience and Recovery Knowledge Network.

Funding: £144,963.00

Project partner: **Dr Erouscilla Joseph**

The SRC will contribute to the GCRF Caribbean Resilience and Recovery Knowledge Network in collaboration with **Dr Emily Wilkinson** (Overseas Development Institute) and **Dr Donovan Campbell** (UWI, Mona). The overall aim of the Caribbean Knowledge Network is to create a new culture for responding to and preparing for hazardous events; one that promotes sustainable and equitable recovery and resilient development pathways in Caribbean islands. Three key activities will all happen in the region: a forensic workshop, scenario roadshows and an interdisciplinary webinar series. New knowledge will be co-produced between the research, practitioner, and policymaker communities. This will take the form of policy briefs, scenario exercises, new (bespoke) principles and strategies for disaster recovery and new research manifestos and proposals.

Quantitative methods for hazard assessment at the Soufriere Hills Volcano, Montserrat.

Dr Victoria Miller (Principal Investigator) is leading a research project to employ quantitative methods for hazard assessment at the Soufriere Hills Volcano, Montserrat. A new hazard map will be developed in collaboration with researchers at The University of Edinburgh, scientists at UWI-SRC and the Government of Montserrat, with a focus on pyroclastic flows and lahars, to differentiate hazard levels within the existing Zone V (exclusion zone). The micro-zonation of Zone V will provide input to risk assessment for the volcano and an evidence base for decision-making regarding access management and long-term development planning on the island of Montserrat.

Centres & Institutes (cont'd)

Geophysics

Trinidad & Tobago Microzonation project (TTMP)

Project leader: **Dr I. Papadopoulos**

The TTMP has reached the 10th year, with field work commencing in the areas of Barataria and San Juan. The technical report for this area is to be submitted to Ministry of Planning and Development in the next year. This year, the TTMP Steering committee accepted as final the Amended First Technical Report: Port of Spain, while the Second Technical Report: San Fernando has also been submitted and awaiting final approval.

PREPARE TT

(Completed November 30, 2021)

Project leader: **Dr Ilias Papadopoulos**

The geophysics team assisted in collecting building stock information that was reviewed by civil engineers, to calculate the exposure in Port of Spain. The results of the TTMP: PoS were also used from Miyamoto International to calculate the seismic hazard in the same area. Dr Ilias Papadopoulos led the presentation of the results to various stakeholders.

Dominica Geothermal Project in Roseau Valley

In April 2021, **Dr Ilias Papadopoulos** and **Mr Arvid Ramdeane** installed a small seismic network comprising of 4 broadband sensors in Trafalgar, Dominica. The purpose of the network is to monitor any induced seismicity that can be caused by the drilling operations during Phase II of the geothermal project.

Outreach

The Education and Outreach section of the Centre aims to bridge the gap between the science of the geological hazards monitored by The UWI-SRC and public understanding and knowledge of these phenomena in the region. The section focuses on student outreach, stakeholder sessions, special projects, and collaborations throughout the islands along with social media posts with the aim of raising awareness to the geological hazards and helping to reduce the risk via preparedness and mitigation messages. The start of 2020 saw the COVID-19 pandemic impact the work of the Centre and the section had to take steps to move to online platforms to conduct sessions. Our robust social media platforms were fully implemented, and we engaged the online and general community through various activities.

Student Outreach

Tours continued at the Centre during the reporting period. Students of Tableland Government and North Gate Secondary school visited the Centre. The tour is modelled on following the 'Data Trail' of seismic data throughout the building and ends with an interactive session. The Tour can be adapted for the varying age groups and or subject(s) being studied by the visiting students. Presentations were given to various schools and institutes in Trinidad & Tobago. These schools were, Lakshmi Girls High, Marabella North Secondary, Trinity East, Smart Start Academy, and University of the Southern Caribbean.

Science and Safety Sessions

Science and safety presentations on earthquakes, volcanoes, tsunamis or all three hazards are given to private firms, government offices and other entities in Trinidad & Tobago upon request. Sessions with Telecommunications Service of Trinidad & Tobago (TSTT) and The Power Generation Company (PowerGen) were carded but ultimately postponed. The sessions after March 2020 had to be conducted online due

to the pandemic and requests also dwindled during the reporting period due to various lockdowns and changes to work policies. The section used the Zoom account and will switch to the Microsoft 365 Suite later in the year.

Collaborations/Special Events

Proposed collaborations included a tsunami campaign (DEM – Barbados), Volcano Awareness Week – St. Vincent and the Grenadines, a geological hazards campaign for Saint Kitts and Nevis, the annual Trinidad & Tobago public awareness campaign, and the Seismology in Schools (SIS) and Creating Opportunity from Research Experience (C.O.R.E) internships. All these events were postponed due to the COVID-19 pandemic.

The section began assisting the Caribbean Development Bank Volcano Ready Communities Project (VRCP) team with the production of new information material for all three geological hazards for both print and social media. Activities were moved online during COVID-19 lockdown with a Tobago Anniversary Earthquake and Earthquake Safety Online Campaign being trialled.

To commemorate the 1997 Tobago earthquake and conduct an online earthquake science and safety campaign, the Open house videos from the 2019 and infographics were shared in April 2020. The section used the SRC Chat format from previous events to launch a 'Quarantine Edition' and seven episodes were filmed with the Centre's staff. The videos aimed to provide the public with a behind the scenes look at the work undertaken by the various sections at the Centre and the challenges faced with doing this work during a lockdown.

To commemorate the 25th anniversary of the eruption of the Soufrière Hills Volcano (SHV), Montserrat, the section did two videos with senior scientists that recalled poignant memories during that eruption period. A slideshow video was also done and shared

on the anniversary of the eruption. As the Dominica volcanic unrest continued, the section shared the '2-minute science' video done for the island and information and graphics regarding the situation.

Strategy Review

In addition to routine monitoring operations, the key projects with which the Centre was engaged during the period are summarised below, with an indication of their alignment with the University's 2017-2022 Strategic Objectives provided in the footnotes. All these projects are ongoing and will continue during the 2021/2022 period.

Management of the Montserrat Volcano Observatory: Successful execution of the new contract signed in 2016 for the management of the Montserrat Volcano Observatory continued. The contract is for a fixed sum of EC\$17.9 million and largely supports the employment of 8 members of staff (7 based at MVO and 1 at SRC).

Seismic Microzonation Studies in Trinidad & Tobago: This Ministry of Planning and Sustainable Development, Government of Trinidad & Tobago funded project continued with the collection of data moving to the San Juan/Barataria area. It caters for microzonation of ten major population centres in Trinidad & Tobago and has a total budget of US\$2.1M.

The PREPARETT Project: Ended on November 30, 2021. The geophysics team assisted in collecting building stock information that was reviewed by civil engineers, to calculate the exposure in Port of Spain. The results of the TTMP: PoS were also used from Miyamoto International to calculate the seismic hazard in the same area.

Dominica Geothermal Project in Roseau Valley: In April 2021 a small seismic network comprising of 4 broadband sensors was installed in Trafalgar, Dominica. The purpose of the network is to monitor any induced seismicity that can be caused by the drilling operations during Phase II of the geothermal project.

Centres & Institutes (cont'd)

Volcano-Ready Communities in St Vincent: This is a project funded by a grant of US\$618,700 from the Community Disaster Risk Reduction Fund administered by the Caribbean Development Bank that is being done in St. Vincent in collaboration with the National Emergency Management Organisation of St. Vincent and the Grenadines. It involves the provision of scientific information and its downscaling to support community level volcano contingency planning, community-led multi-hazard mapping and capacity building for disaster risk reduction.

Revised web site for the SRC & more effective use of social media and developing video projects: Work on our revised website is now nearly completed and is expected to be launched during the 2020-2021 period. Attention will continue to be focused on enhancing the education and outreach work of the Centre to vulnerable island communities using social media but also developing short videos.

Development of the myHAZ citizen science system: This project was supported by the British Geological Survey NC-ODA grant NE/R000069/1: Geoscience for Sustainable Futures, with input from the following BGS Challenge Areas: Multihazards and Resilience, Digital and Global. It involves stakeholder awareness and participation in the development of the prototype citizen science 'myHAZ' platform, which consists of three components: (1) a citizen science smartphone app for gathering multihazard observations and providing users with a 'quick glance' of ongoing hazards, environmental change and impacts; (2) a management dashboard to manage and respond to incoming observations in-country, and; (3) a web portal for exploring, visualising and downloading data collected by the app.

Quantitative methods for hazard assessment at the Soufriere Hills Volcano, Montserrat: A research project to employ quantitative methods for hazard assessment at the Soufriere Hills Volcano, Montserrat. A new hazard map will be developed in collaboration with researchers at the University of Edinburgh, scientists at UWI-SRC and the Government of Montserrat, with a focus on pyroclastic flows and lahars, to differentiate hazard levels within the existing Zone V (exclusion zone). The micro-zonation of Zone V will provide input to risk assessment for the volcano and an evidence base for decision-making regarding access management and long-term development planning on the island of Montserrat.

Sir Arthur Lewis Institute of Social & Economic Studies (SALISES)

Director's Summary

During the Academic Year 2020/2021, SALISES continued hosting events despite the setback associated with the onset of the COVID-19 Pandemic. The pandemic upset initial efforts of

SALISES, St. Augustine to host the 21st Annual SALISES Conference in Mt. Irvine Bay Hotel and Resort in Tobago. Though not convened during the year preceding the reporting year, the conference was eventually hosted by SALISES, St. Augustine at the planned venue in December 2020. During the reporting year, SALISES, St. Augustine also hosted the Fourth Sir Arthur Lewis Memorial Symposium and its Fourth Annual Research Festival.

SALISES academics participated in ventures that permitted scholarly inquiries into the ravages of the COVID-19 Pandemic. Indeed, **Dr Preeya Mohan** and **Dr Godfrey St. Bernard** continue to advance their interests and contributions to this end. SALISES Academics also made contributions to scholarly activities such as organising conferences of scholarly associations, serving on Editorial Boards, acting as resource persons for scholarly events, lending expertise to the establishment of knowledge-sharing resources and fostering Memoranda of Understanding. Every SALISES Academic has contributed new publications to the scholarly community, whether through refereed journal articles or book chapters. The disciplinary interests of such contributions are varied and do reflect the role of SALISES as a multi-disciplinary, interdisciplinary organ. Other forms of scholarly enterprise such as playing leading roles in launching publications, peer reviewing scholarly submissions, and presenting on-going and completed research at local, regional and international conferences have engaged the interests of SALISES Academics.

SALISES has had many achievements to celebrate including the promotion of former Director, **Dr Hamid Ghany** to the rank of Professor, further recognition for **Dr Godfrey St. Bernard** who crossed the Merit Bar, and the appointment of Dr Salandy as a Fellow, replacing Dr St. Bernard while the latter was on sabbatical leave.

SALISES continued to scale barriers with noteworthy annual throughput as reflected in the graduation of students from the MSc Development Statistics and its MPhil/PhD Programme. The excellence of such students has been further demonstrated through prestigious awards and commendation bestowed upon Ms Navida Bachan, Ms Tricia Elder and **Mr Robert Stewart** as detailed below. SALISES continues to make its mark - winning international projects and attracting research funds, all of which, have been instrumental in advancing UWI's ranking among tertiary institutions regionally and internationally. **Dr St. Bernard** and Dr Mohan have featured prominently in this regard. The impact of the output of SALISES researchers is beginning to grow despite modest levels of collective citations that have grown from 103 in 2020 to 164 in 2021.

The success of SALISES and its Academic Staff has largely been due to the co-operation and tireless efforts of the ATSS members who continue to serve SALISES with distinction. The potential of the Academic Staff is evident, and it is our mission to grow the number and quality of scholarly publications that we produce annually. This would positively impact the frequency of citations linked to our scholarly publications, thus being one of our principal aims. For the next year, SALISES, St. Augustine, will bring to The UWI and its stakeholders an exciting array of scholarly, capacity-building, and outreach activities. These include at least 10 Virtual SALISES Forums; at least four RCYP Virtual Webinars; at least one Virtual IISD/SALISES Webinar; at least two Thematic Online Conferences; at least four Spotlight Presentations by SALISES Academics, and at least two Revenue Generation Courses.

Centres & Institutes (cont'd)

Intensification of collaborations associated with established SALISES Research Clusters, and at least one event commemorating the life and times of Sir Arthur Lewis is planned. Collectively, the staff of SALISES seeks to mould a SALISES culture that promotes unity and fitness for purpose in a collegial culture that is selfless.

Student Achievements

During the period under review, several students were awarded MSc in Developmental Statistics degrees. **Ariel Burke** was awarded the MSc in Development Statistics Specialising in Social and Demographic Statistics; **Janelle Rodriguez** was awarded the MSc in Development Statistics Specialising in Social and Demographic Statistics. **Alicia Shepherd** was awarded the MSc In Development Statistics Specialising in Social and Demographic Statistics. **Tricia Elder** was awarded the MSc in Development Statistics Specialising in Survey and the Annual Jack Harewood Memorial Award for 2020. Ms Elder was the graduate student with the highest average for the entire programme among graduating students of the MSc In Development Statistics in 2020.

Dr Robert Stewart was awarded a PhD in Economic Development Policy (with High Commendation) during Academic Year 2020/2021. His thesis is entitled: Bank Stability and Economic Growth: Trade-Offs of Opportunities? Using rich time series data from more than 100 countries, his research examined the regulatory capital-economic growth nexus and reveals that regulatory capital positively moderates the relationship between bank stability and economic growth. Another important finding indicated that regulatory capital improves economic growth by restraining the expansion of unstable credit, hence helping to maintain stable economic growth. Based on his research, he also noted that important capital allocation efficiencies allow more regulatory capital to be allocated to riskier assets, and less regulatory capital to be allocated to less

risky assets. His research suggested central banks should pursue the Internal Ratings Based (IRB) approach when administering capital regulation.

Dr Claire Craig was awarded a PhD in Governance during Academic Year 2020/2021. Her thesis is entitled: Stakeholders and Caribbean Internet Exchange Points: A Case Study of Curaçao and Grenada. The thesis investigated the role of Internet Exchange Points (IXPs) as a catalyst for developing the Internet EcoSystem in the Caribbean and looks at the role of stakeholders in their planning and implementation. The thesis confirmed that implementing an IXP is not a panacea for solving ICT supported developmental problems. Instead, IXPs function as a critical enabler of ICT development by facilitating more economical and resilient transmission of local Internet traffic. In part, the thesis bridges the dearth of research information on IXPs in the region by contributing to the emergence of a broader body of empirically based knowledge in this area.

Dr Kevin Finch was awarded a PhD in Governance during Academic Year 2020/2021. His thesis was entitled: Re-evaluating the Role of Government in Trinidad & Tobago - A Co-Production Approach to Governance. This thesis draws from the tenets of coproduction to develop frameworks that recognise and reinforce the private sector and civil society as critical partners alongside government in public policy formulation and service delivery. It sought to reconsider the role of the state in Trinidad & Tobago by determining its core functions and to cement co-production as the dominant governance logic for the execution of non-core government functions. Health, education, community development, culture and arts and sports administration appear suitable for co-production arrangements.

Dr Henry Charles was awarded a PhD in Social Policy during Academic Year 2020/2021. His thesis was entitled: Assessing Grenada's Youth Policy Development Process: A Mixed Methods Study. His research investigated

the youth policy development process in Grenada using a hybrid transformative mixed-methods approach. The findings revealed that the element of political support was the most problematic area of the Grenada youth policy environment, even though it was ranked, an essential element for an enabling youth policy environment. Education level was found to be the most significant predictor of satisfaction and likelihood to participate in the development of youth policies. Young people also felt that their participation was tokenistic and was incongruent with their professional development goals. This research will positively impact the Caribbean youth development landscape.

Ms Navida Bachan, a current MPhil/PhD student, was awarded the prestigious Routledge/Round Table Commonwealth Studentship Award for the Academic Year 2020/2021. Having graduated from the MSc in Development Statistics in 2018, Ms Bachan was awarded the Annual Jack Harewood Memorial Award for 2017.

Research

Development of a Comprehensive Wealth Index for Trinidad & Tobago

Lead Researcher: **Dr Godfrey St. Bernard**

Grant Source: International Institute for Sustainable Development (IISD)

Amount: CAD100,000.00

Duration of Grant: 2020-2023

This research introduces five capitals and their measurement as critical pillars for establishing national measures of national wealth and seeks to convince national statistical offices and other national policy entities that such measures, when comprehensively combined to account for national wealth, constitute a national measure that has advantages over traditional measures based principally in national income accounting.

Rights of Children and Youth Partnership – Strengthening Collaboration in the Americas (RCYP)

Lead Researcher: **Dr Godfrey St. Bernard**

Grant Source: Social Sciences and Humanities Research Council (SSHRC), Canada

Amount: CAD 4.2 million

Duration of Grant: 2017-2022

Scholarly Contribution: This research brings together a harmonised research project targeting Trinidad & Tobago, Jamaica, Guatemala, El Salvador, Honduras, Dominican Republic, and Canada. The research results will produce scholarly papers, build capacity among young researchers, and inform public policy promoting the rights and well-being of children and young people. Academic Partners: Ryerson University (Lead Partner), Dalhousie University, Mc Master University, Pontificia Universidad Catolica, Madre y Maestra, The Governing Council of The University of Toronto, Universidad Luterana Salvadorena, Universidad Nacional, Autonomade Honduras, University of Ontario Institute of Technology, University of Prince Edward Island, University of San Carlos de Guatemala, University of Technology, The University of the West Indies, Wilfred Laurier University, York University. Non-Academic Partners: Catholic Children's Aid Society, Toronto Centre for Development and Constructive Interaction (Dominican Republic), Commonsense Childbirth (Florida, United States), El Consejo Nacional de la Ninez y la Adolescencia (Dominican Republic), Federacion Dominicana de Municipios (Dominican Republic), Institute for Research Development on Inclusion and Society (Ontario, Canada), Office of the Provincial Advocate for Children and Youth (Ontario, Canada), Save the Children Dominicana (Dominican Republic), UNICEF El Salvador, UNICEF Nicaragua. Sites for the Studies: Canada, El Salvador, Guatemala, Nicaragua, Honduras, Dominican Republic, Trinidad & Tobago, and Jamaica.

Development of a Gender Responsive Private Sector Scoping Study to explore investment opportunities to enhance NDC implementation in Saint Vincent and the Grenadines.

Lead Researcher: **Dr Preeya Mohan**

Grant Source: United Nations Development Programme (UNDP)

Amount: USD60,000.00

Duration of Grant: 2021

Publications & Conferences

(ONLINE ONLY)

FACULTY OF ENGINEERING

Journal Publications

Department of Electrical and Computer
Engineering

Manninen, Henri, Craig J. Ramlal, Arvind Singh, Sean Roche, Jako Kilter, and Mart Landsberg (2021). "Toward automatic condition assessment of high-voltage transmission infrastructure using deep learning techniques." *International Journal of Electrical Power & Energy Systems* 128 (IF-3.588).

Persad, Jeevan, and Sean Roche. (2020). "Investigating the Impact of Deformation on a 3D-printed Antenna in Biomedical Systems." *West Indian Journal of Engineering* 42, no. 2.

Hosein, G., A., P. Hosein, S. Bahadoorsingh, R. Martinez, and C. Sharma, (2020). "Predicting Renewable Energy Investment Using Machine Learning," *Energies*, vol. 13, 4494, pp. 1-9, [DOI: 10.3390/en13174494].

Hosein, G., A., L. M. Addison, S. Bahadoorsingh, and C. Sharma, (2020). "Probabilistic Assessment of Electric Vehicle Charging Behaviour" *Caribbean Electric Industry Journal*, vol. 16, pp. 36-39, [DOI: 10.47412/QZWP9167].

Geetam Singh Tomar, Marcus Lloyd George and Abhineet Singh Tomar. (2021). "MultiPrecision Binary Multiplier Architecture for MultiPrecision FloatingPoint Multiplication". *IET Circuits, Devices & Systems* 15 (1) and Open Access paper.

Hosein, G.; Hosein, P.; Bahadoorsingh, S.; Martinez, R.; **Sharma, C.** (2020). "Predicting Renewable Energy Investment using Machine Learning" *Springer Journal Energies*, 13(17), 4494; doi:10.3390/en13174494.

Marcus Lloyd George, Nicholas Singh and Nora Innocent-George (2020). "Development of a Breathalyzer-enabled Ignition System for Reduction of Road Fatalities in the Caribbean". *i-manager's Journal on Electrical Engineering*: 13 (4): 1-23.

Sterling Ramroach, Ajay Joshi (2021). "Accelerating Data-Parallel Neural Network Training with Weighted-Averaging Reparameterization" *Parallel Processing Letters* Vol. 31, No. 02, 2150009, ISSN (print): 0129-6264 | ISSN (online): 1793-642X.

Sterling Ramroach, Andrew Dhanoo, Brian Cockburn, Ajay Joshi (2020). "Can non-invasive features including limited joint mobility be used to predict glucose control?" *Journal BMJ Innovations*, Online: ISSN 2055-642X Print: ISSN 2055-8074, Link: <https://innovations.bmj.com/content/7/1/26>.

Department of Mechanical and
Manufacturing Engineering

Adeyanju, A.A., and Manohar, K. 2020 "Design and Analysis of a Thermoelectric Air-conditioning System." *Journal of Scientific Research and Reports*, 1-11.

Adeyanju, A.A., Mohammed, O. and Manohar, K., (2021). The effect of Rotor Separation on the Performance of a Dual Rotor Wind Turbine. *Authorea Preprints*.

Adeyanju, A.A. (2020). "Theoretical and Experimental Analysis of a Thermoelectric Air-conditioning System." *Low-temperature Technologies*. IntechOpen.

Aliong, T. and **Pun, K.F.** (2021). Advancing the Ultra High Frequency RFID in Industrial Applications: A Review. *West Indian Journal of Engineering* 44(1): 40-52 doi.org/10.47412/PWPG5760.

Bachoo, R., (2021). Wave characteristics of nonsymmetric cross-ply laminated composite beams. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications*, p.1464420720977559.

Bachoo, R., (2021). Free vibration analysis of nonsymmetrically laminated cross-ply L-shaped frames. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications*, p.14644207211016888.

Bachoo, R., (2021). Mode count and modal density of nonsymmetric cross-ply laminated composite beams. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications*, p.14644207211008571.

Bachoo, R. and **Bridge, J.**, (2021). Flow Induced Vibrations of Oil and Gas Piping Systems: Wall Pressure Fluctuations and Fatigue Life Assessment. *West Indian Journal of Engineering*, 43(2).

Bachoo, R., and **Bridge, J.** (2020). "Random vibration analysis and modal energy characteristics of fiber-reinforced composite beams." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* (2020): 1464420720958746.

Bachoo, R. (2021). "Free vibration analysis of non-symmetrically laminated cross-ply L-shaped frames." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* 235, no. 9: 2112-2127. [doi:10.1177/14644207211016888](https://doi.org/10.1177/14644207211016888).

Bachoo, R. (2021). "Mode count and modal density of nonsymmetric cross-ply laminated composite beams." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* 235, no. 11 (2021): 2547-2564. [doi:10.1177/14644207211008571](https://doi.org/10.1177/14644207211008571).

Bachoo, R. (2021). "Wave characteristics of nonsymmetric cross-ply laminated composite beams." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* 235, no. 7: 1567-1584. [doi:10.1177/1464420720977559](https://doi.org/10.1177/1464420720977559).

Bachoo, R. and **Bridge, J.**, (2021). "Random vibration analysis and modal energy characteristics of fiber-reinforced composite beams." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* 235, no. 2: 237-254. [doi:10.1177/1464420720958746](https://doi.org/10.1177/1464420720958746).

Bachoo, R. and **Bridge, J.** (2021). "Flow Induced Vibrations of Oil and Gas Piping Systems: Wall Pressure Fluctuations and Fatigue Life Assessment", *West Indian Journal of Engineering*, Vol.43, No.2, pp.54-68.

Bedasie, R.S, and **Pun, K.F.** (2021). "Quality management determinants and performance of poultry feed producers in Trinidad and Tobago: Some findings", *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49(2): 22-28.

Chowdary, B.V., **Jahoor, R.**, **Ali, F.** and **Gokool, T.**, (2021). Optimisation of surface roughness when CNC turning of Al-6061: application of Taguchi design of experiments and genetic algorithm. *Journal of Mechanical Engineering (JMEchE)*, 16(2), pp.77-91.

Chowdary, B. V. and **Bobb, A. A.** (2021). Impact of processing parameters on fatigue life of FDM manufactured part: application of central composite design and genetic algorithm tools, *International Journal of Rapid Manufacturing*, Accepted for Publication (In Press).

Publications & Conferences (cont'd)

Chowdary, B. V. and George, N. (2020). Design Optimization of an Automobile Air Filter Model: A Case Approach to Study the Design Complexity, *Int. J. of Research, Innovation and Commercialisation*, Vol.3, No.2, pp. 131-146.

Chowdary, B.V. and Jaglal, D., (2021). 3D CAD model reconstruction and fast prototyping of rotational parts: a reverse engineering approach. *Journal of Engineering, Design and Technology*. <https://doi.org/10.1108/JEDT-07-2021-0365>.

Davies, G., and **Ekwue, E.I.** (2021). Hydrus-1D Simulation of Two-Stage Cross-Flow Pre-Filtration of Turbid River Water. *Water Supply Journal (UK)*: doi:10.2166/ws.2021.355.

Deo, A.M., and **Pun, K.F.** (2021). "Transitioning to ISO9001: 2015 quality management system with employee focus in manufacturers: A case in Trinidad", *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49(2); 29-37.

Ekwue, E.I., Lewis, C.L., and **Bharat, C.** (2021). Survey and modelling of open and tunnel-ventilated poultry buildings in Trinidad. *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49 (2): 13-21.

Ekwue, E.I., Bachan, D. and Ali, C. (2021). Density-moisture relations of some Trinidad soils determined using a hammer-type vibratory compactor. *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49 (1): 47 – 54.

Ekwue, E.I., Abasali, A., **Bharat, C.**, and **Birch, R.A.** (2020). "Density- Moisture Relations of Two Trinidad Soils Obtained with a Soil Vibratory Compactor." *West Indian Journal of Engineering* 43(1): 4-10.

Gunakala, S.R., Job, V. M., Sakhamuri, S., Murthy, P. V. S. N. and **Chowdary, B. V.** (2021). Numerical Study of Blood Perfusion and Nanoparticle Transport in Prostate and Muscle Tumours During Intravenous Magnetic Hyperthermia, *Alexandria Engineering Journal*, Vol. 60, pp. 859–876.

Ibrahim, Y., Davies, C. M., **Maharaj, C.**, Li, Z., Dear, J. P., and Hooper, P. A. (2020). Post-yield performance of additive manufactured cellular lattice structures. *Progress in Additive Manufacturing*, 1-10.

Jordan, P. and **Maharaj, C.**, (2020). Asset management strategy for HAZ cracking caused by sigma-phase and creep embrittlement in 304H stainless steel piping. *Engineering Failure Analysis*, 110, p.104452.

Kaboglu, C., Liu, J., Liu, H., Russo, P., Simeoli, G., Lopresto, V., Dear, J.P. and **Maharaj, C.**, (2021). The Effect of a Coupling Agent on the Impact Behavior of Flax Fiber Composites. *Journal of Engineering Materials and Technology*, 143(3), p.031008.

King, G.S., Rameshwar, J.R. and **Syan, C.S.** (2021). "Industry 4.0 in a Small Commodity-Based Economy: A Vehicle for Stimulating Innovation." *Journal of Industrial Integration and Management* (2020).

Koonk Beharry, A. and **Pun, K.F.** (2021). Contextual Analysis of Innovation Process Models toward the Fourth Industrial Revolution. *West Indian Journal of Engineering*, 43(1): 43-54.

Lalla, TRM, and Sangster, N. (2020). "Differences between Technicians and Engineers: An Analysis Based on UK-SPEC." *West Indian Journal of Engineering* 43(1): 36-42.

Lemessy, K.G., **Manohar, K.**, and **Adeyanju, A.** (2020). "Reducing the Barriers to Wave Energy Harvesting." *Journal of Scientific Research and Reports*, 107-116.

Lemessy, K.G., **Manohar, K.** and **Adeyanju, A.**, (2021). Analysis of the Caribbean wave climate for wave energy harvesting. *IET Renewable Power Generation*, 15(14), 3409-3423.

Maharaj, C., Blair, E. and Burns, M., (2021). Reviewing the effect of student mentoring on the academic performance of undergraduate students identified as 'at risk'. *Journal of Learning Development in Higher Education*, (20).

Maharaj, C., Sirjoosingh, V., Ali, A., Primus, S.J., and Arjoon, S. (2021). Help Me Else I Might Fail! Solutions for Academically Challenged Engineering Students. *Journal of College Student Retention: Research, Theory & Practice*, p.1521025119865747.

Marquez, A. and **Maharaj, C.**, (2021). Corrosion of a chrome-moly pipe transporting sulfuric acid in a demineralization section: a failure analysis. *Anti-Corrosion Methods and Materials*.

Mohamed, S., **Ekwue, E.I.**, **Bharat, C.**, and **Birch, R.A.** (2021). "A Compact Urban Aquaponic Irrigation System for the Caribbean Region." *The Journal of the Association of Professional Engineers of Trinidad and Tobago* 48(1): 31-38.

Murray, R., Bachu, S., Pemberton, C. and **Birch, R.**, (2021). Investigation of the Impact of Aging upon the Mechanical Properties of Cocoa Pod Husk. *Pelita Perkebunan (a Coffee and Cocoa Research Journal)*, 37(2): 146-165.

Nathai-Balkissoon, M. and **Pun, K.F.** (2021). "E-Government of Occupational Safety and Health: Improvement Prospects for a Developing Nation", In: Khosrow-Pour, M. (Eds), *Research Anthology on Changing Dynamics of Diversity and Safety in the Workforce*, Information Resources Management Association/ IGI Global, 2022, Chapter 105, p.2086-2110 (25p) DOI: 10.4018/978-1-6684-2405-6.ch105.

Purcell, A., Forde, M.M., Maharaj, R. and **Maharaj, C.**, (2021). Optimising the Performance Of Crumb Rubber Modified Concrete. *The Journal of Solid Waste Technology and Management*, 47(1): 137-145.

Raeburn-Marcano, P. and **Pun, K.F.** (2020). Assessing Small Enterprises' Maturity Levels of Knowledge, Attitudes and Practices towards Emergency Preparedness in Trinidad: A Pilot Study. *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 48(2): 67-74.

Ramdath, T.A., and **Pun, K.F.** (2021). "Optimising the component replacement and spare part management of the raw sewage pumps: A case study", *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49(1): 4-16.

Ramkissoon, D. and **Pun, K.F.** (2021). Assessing Human Factors at the Design Stage of Upstream Oil and Gas Projects: A Risk Assessment Methodology. *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 48 (2): 60-66.

Ramrose, M. and **Pun, K.F.** (2020). "DIALux capabilities with planning of LED lighting solutions: Some findings in Trinidad and Tobago", *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 48(1): 39-48.

Ramrose, M. and **Pun, K.F.**, (2021). Improving the Lighting Project Executions with Light-Emitting Diodes in Trinidad and Tobago: A Value Engineering Approach. *West Indian Journal of Engineering*, 43(2): 12-22.

Syan, C.S., Ramssoobag, G., Mahabir, K., and Rajnauth, V. 2020(2020). "A Case Study for Improving Maintenance Planning of Centrifugal Pumps Using Condition-Based Maintenance." *West Indian Journal of Engineering* 42(2): 17-24.

Thurab-Nkhosi, D., **Maharaj, C.** and Ramadhar, V., (2021). The impact of emergency remote teaching on a blended engineering course: perspectives and implications for the future. *SN Social Sciences*, 1(7): 1-19.

Tyagi, R., Vishwakarma, S., Singh, K.K., and **Syan, C.S.** (2020). "Low-Cost Energy Conservation Measures and Behavioral Change for Sustainable Energy Goal." *Affordable and Clean Energy*. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-71057-0_155-1.

Publications & Conferences (cont'd)

Wyatt, N., and **Pun, K.F.** (2021). "A process capability approach to raw material processing: A case study of a beverage manufacturer", *The Journal of the Association of Professional Engineers of Trinidad and Tobago*, 49(1): 17-25.

Wilson, S., **Maharaj, C. S.**, and Maharaj, R. (2020). Formalising the National Innovation System in a Developing Country. *West Indian Journal of Engineering*, 42(2): 4-16.

Xiang, N., Zhang, X., Zheng, M., Ge, Y., Wang, T., Liu, H., **Maharaj, C.**, Dear, J.P. and Yan, Y., (2020). Microstructure and tensile properties of injection molded thermoplastic polyurethane with different melt temperatures. *Journal of Applied Polymer Science*, 137(29), p.48891.

Zhang, X., Liu, H., **Maharaj, C.**, Zheng, M., Mohagheghian, I., Zhang, G., Yan, Y. and Dear, J.P., (2020). Impact response of laminated glass with varying interlayer materials. *International Journal of Impact Engineering*, 139, p.103505.

Department of Geomatics Engineering and Land Management

Al-Tahir, R. and Lalla, G. (2021). Assessment of the Emerging Landscape of Unmanned Aerial Systems in Trinidad and Tobago. *The West Indian Journal of Engineering*. Vol.44, No.1, pp.18-25.

Griffith-Charles, C. (2021). Application of FFPLA to Achieve Economically Beneficial Outcomes Post Disaster in the Caribbean. *Land*, 10, 475. <https://doi.org/10.3390/land10050475>.

Mycoo, M.A. and Bharath, K. (2021). Sustainable Development Goal 11 and a New Urban Agenda for Caribbean Small Island Developing States: Policy, Practice and Action. *Frontiers in Sustainable Cities*. 3: 1-17.

Mycoo, M.A., Robinson, S.A, Nguyen, C., Nisbet, C., Tonkel, R. (2021). Human adaptation to coastal hazards in Greater Bridgetown, Barbados. *Frontiers in Environmental Science*. (Impact Factor=4.581) (Scimago H Index=37).

Nanlal, C., **K. Miller, D. Davis & M. Sutherland** (2021). An Assessment of Methods used for Establishing Vertical Control in Caribbean Island Territories". In *Surveying and Land Information Science*, 80 (1), 2021, pp 5-15. Academic Accelerator Impact Factor = 0.208; Scimago H-Index = 9.

Sekac, T., S. K. Jana, **M. Sutherland**, and S. Samanta (2021). "Spatio -Temporal Assessments of Rainfall Variability and Trends in the Highlands to Coastal Regions of Papua New Guinea". In *International Journal of Geoinformatics*, Vol. 17, No. 3, pp. 23-38. Academic Accelerator Impact Factor = 0.24; Scimago H-Index = 10.

Non-Refereed Publications

Department of Chemical Engineering

Technical Papers/Presentations/Reports

Hosein R. (2020). A Characterization of Trinidad and Tobago Natural Gas for Calculating Reserves and Recovery. Online Presentation to SPETT Membership, Aug. 8.

Maharaj, R. and Darsoo, S. (2021). Improving Food Packaging Practices in CARICOM. Submitted to Food and Agricultural Organization of the United Nations, FAO, Rome. August, pp 206.

Books & Book Chapters

Department of Electrical and Computer Engineering

Book Chapter

Mallalieu, K. "Following the Lead of Fishers in ICT Development in the Caribbean". in *Information and Communication Technologies for Small-scale Fisheries (ICT4SSF) - A Handbook for Fisheries Stakeholders*. FAO and WorldFish. Bangkok, Thailand. 2020. <https://doi.org/10.4060/cb2030en>. 22 pages.

Department of Geomatics Engineering and Land Management

Books

Mycoo, M. (2021). Contributing Author, *Engineering for Sustainable Development Delivering of the Sustainable Development Goals*. UNESCO, Paris and International Centre for Engineering Education. ISBN 978-92-3-100437-7, 185 pages.

Chapters in Books

Mahabir, R. **Al-Tahir, R. Ramlal, B.** Saeed, I, and Gkountouna, O. (2020). The Use of Geoinformatics for Combining in Situ and Satellite-Derived Data for the Assessment of Land Degradation in Trinidad in *Volume 57: Space Infrastructures: From Risk to Resilience Governance*, NATO Science for Peace and Security Series - D: Information and Communication Security, pg. 273-293, DOI: 0.3233/NICSP200028.

Mycoo, M. (2021). "Environmental Governance in Small Island States: Challenges and Opportunities for Transformation Using a Trinidad and Tobago Case Study" In *Handbook of Governance in Small States*, edited by Lino Briguglio, Jessica Byron, Stefano Moncada, Wouter Veenendaal, 179-194. Routledge.

Conference Presentations

Department of Geomatics Engineering and Land Management

Griffith-Charles, C. Use of Global Indicators and Cadastral Information for Tracking Gender and Tenure Issues in the Caribbean. FIG e-Working Week 2021. Netherlands, 20-25 June 2021.

Laloo, S., Farrell, M. and de Gannes, D., (2021).. The emergence of Green Building in the Caribbean and its anticipated impact on Commercial Real Estate. In: Caribbean Urban Forum. Georgetown: The University of Guyana.

Conference Papers & Proceedings

Department of Electrical and Computer Engineering

Conference Papers

Motilal, A., Govinda Hosein, Clarence Ramai, Sanjay Bahadoorsingh, **Chandrabhan Sharma.**

"Power Transformer and Surge Arrester Modeling for Fast Front Overvoltages Using EMTP-RV" Proceedings of the IEEE 2020 T&D Virtual Conference, Oct 12-20 2020.

Ramlal, C.J., A Singh, S Rocke, "Repetitive Learning Frequency Control for Energy Intensive Corporate Microgrids subject to Cyclic Batch Loads", In 2020 IEEE Innovative Smart Grid Technologies.

Ramlal, C.J., H. Manninen, A. Singh, S. Rocke, J. Kilter and M. Landsberg, "Toward Automated Utility Pole Condition Monitoring: A Deep Learning Approach" In 2020 IEEE Innovative Smart Grid Technologies.

Mallalieu, K "Competition in the Global Market amidst the 4th Industrial Revolution and Digitisation - a View from a Developing Country".. International Institute of Communications (IIC) Annual Washington DC Conference: The restart agenda. Online. December 8 - 10, 2020.

Mahadeo, Megan, Aaron Roopnarine, Sean Rocke, and Craig Ramlal. "Non-invasive Serum Glucose Sensing Using a Double U-slot Antenna." In 2020 IEEE MTT-S Latin America Microwave Conference (LAMC 2020), pp. 1-3. IEEE, 2021.

Motilal, G. Hosein, C. Ramai, **S. Bahadoorsingh,** and C. Sharma, "Power Transformer and Surge Arrester Modeling for Fast Front Overvoltages Using EMTP-RV," presented at the IEEE Transmission and Distribution Conference and Exposition, Chicago, USA, 2020. [DOI: 10.1109/TD39804.2020.9299989].

Publications & Conferences (cont'd)

Persad, Jeevan, and Sean Roche. "Comparison of Measured and Predicted Permittivity Values for 3D Printed PLA Substrates." 2021 IEEE MTT-S Latin America Microwave Conference (LAMC), Cali, Colombia, May 26-28, 2021.

Persad, Jeevan, Sean Roche, Aaron Roopnarine, and Azim Abdool. "Investigating the Impact of Substrate Composition on 3D Printed mmWave CSRR Sensor." COMSOL Boston 2020, October 2020.

Mohammed, Crista, and Cathy-Ann Radix. "Creating Rhetorical Complexity: Using Popular Science Articles to Teach Abstract Writing". In Proceedings of IEEE Professional Communication Conference (IPCC), 19-22 July 2020. Kennesaw, Georgia.

Sahil A. K. Ramlogan and Akash Pooransingh, "Semi-Automated Cricket Broadcast Highlight Generation," The International Conference on Emerging Trends in Engineering and Technology (IConETech-2020), 2020.

Conference Papers

Ramoutar, S., Richardson, J., **Ramlal, B.**, Tambie, J. Using Technology to Foster Inclusion and Diversity in Higher Education: A Case study of Geospatial Tools in Engineering Education. AECT Summer Research Symposium, 2021 "Toward Inclusive Learning Design: Social Justice, Equity, and Community." July 21-22, 2021.

Journal Manuscripts

Al-Tahir, R. and Lalla, G. (2021). Assessment of the Emerging Landscape of Unmanned Aerial Systems in Trinidad and Tobago. *The West Indian Journal of Engineering*. Vol.44, No.1, pp.18-25.

Griffith-Charles, C. (2021). Application of FFPLA to Achieve Economically Beneficial Outcomes Post Disaster in the Caribbean. *Land*, 10, 475. <https://doi.org/10.3390/land10050475>.

Mycoo, M.A. and Bharath, K. (2021). Sustainable Development Goal 11 and a New Urban Agenda for Caribbean Small Island Developing States: Policy, Practice and Action. *Frontiers in Sustainable Cities*. 3:1-17.

Mycoo, M.A., Robinson, S.A, Nguyen, C., Nisbet, C., Tonkel, R. (2021). Human adaptation to coastal hazards in Greater Bridgetown, Barbados. *Frontiers in Environmental Science*. (Impact Factor=4.581) (Scimago H Index=37).

Nanlal, C., **K. Miller, D. Davis & M. Sutherland** (2021). An Assessment of Methods used for Establishing Vertical Control in Caribbean Island Territories". In *Surveying and Land Information Science*, 80 (1), 2021, pp 5-15. Academic Accelerator Impact Factor = 0.208; Scimago H-Index = 9.

Sekac, T., S. K. Jana, **M. Sutherland**, and S. Samanta (2021). "Spatio -Temporal Assessments of Rainfall Variability and Trends in the Highlands to Coastal Regions of Papua New Guinea". In *International Journal of Geoinformatics*, Vol. 17, No. 3, pp. 23-38. Academic Accelerator Impact Factor = 0.24; Scimago H-Index = 10.

Department of Mechanical and Manufacturing Engineering

Conference Papers

Adeyanju, A.A. Theoretical and Experimental Analysis of Atmospheric Water Harvesting Device, Proceedings of the Canadian Society for Mechanical Engineering International Congress, CSME Congress 2020, June 21-24, 2020, Charlottetown, PE, Canada.

Davis, G., and **Ekwue, E.I.** Rapid Sand Filter Clogging, Fabric Identification, River Water Turbidity and River Particle Analysis in Preparation for Pilot Scale Two- Stage Cross Flow Pre-Filtration of Turbid River Water. Online International Conference on Sustainable Water Resources Development and Management (SWARDAM-2021), Organised by Government College of Engineering, Aurangabad-431 005, Maharashtra State, India, 8-9 March, 2021.

Hassanali, N.K. and **Pun, K.F.**, "The ontology of delays and the emergence of productivity factors: A framework for enhancing project executions in industrial Firms", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference and General Meeting, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G022.

Hassanali, N.K. and **Pun, K.F.**, "Evaluation of key success factors affecting project productivity in industrial firms: A conceptual paradigm", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G023.

Hassanali, N.K. and **Pun, K.F.**, "Adopting pragmatism in project management research: A multi-stage mixed methods and a proposed framework", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G024.

Persad, A., **R. Bachoo**, and J. Tiu. Attenuation of vibration in structural frames using blocking masses. 27th International Congress on Sound and Vibration (ICSV27) Prague, Czech Republic, 2021.

Quildon, L.F. and **Pun, K.F.**, "Exploring value creation and SME competitiveness in the export of maritime services: Some findings in Trinidad and Tobago", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G044.

Quildon, L.F. and **Pun, K.F.**, "Developing an integrated framework for cluster value creation in the Maritime Services Sector in Trinidad and Tobago", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G045.

Ramnarace, S. and **Bridge, J.**, Analysis of a Shape Memory Alloy Spring System Under Harmonic Excitation. In *Nonlinear Dynamics of Structures, Systems and Devices* (pp. 227-235). Springer, Cham, 2020.

Ramkissoon, D.V. and **Pun, K.F.**, May. Incorporating Human Factors into Installing a Pressure Transmitter on a Flowline of Oil and Gas Platforms: A Case Study at the Design Stage of Projects. In *2021 IEEE Technology & Engineering Management Conference-Europe (TEMSCON-EUR) Dubrovnik*, May 17-21 2021 (Ref. #1570701237); (pp. 217-222). IEEE, 2021.

Tiu, J. and **Bachoo, R.** Vibration transmission in a three-dimensional corner joint with blocking mass. 27th International Congress on Sound and Vibration (ICSV27) Prague, Czech Republic, 2021.

Virgil, C.C. and **Pun, K.F.**, "A value management approach to reducing climate adaptation deficit", The Caribbean Academy of Sciences Virtual 22nd Biennial Conference, CAS-Guyana Chapter/University of Guyana, August 9-14, 2021, Ref. ID #: G025.

Virgil, C.C. and **Pun, K.F.**, "Utilising value management principles and tools to support organisational climate change impact assessments", Proceedings of the 2021 Australia's Inaugural Climate Smart Engineering (CSE) Conference, Hybrid Event, November 16-17, 2021, Ref. ID #: 105 *Temperatures*. Journal of Applied Polymer Science. <https://doi.org/10.1002/app.48891>.

FACULTY OF FOOD & AGRICULTURE

Journal Publications

Augustus, E., **I. Francis-Granderson** and K. Rocke. (2020). Dietary Intervention on the Quality of Life of Stage II and III Cancer Patients: A Randomized Controlled Trial in the Caribbean. *Nutrition and Cancer Journal*. <https://doi.org/10.1080/01635581.2020.1803930>.

Barry, T. and L. Grahman. (2021). Food System and Social Reproduction Realities for Women in Agriculture across the Caribbean: Evidence from Grenada, St. Lucia and St. Vincent and the Grenadines. *Journal of Agrarian Change*. doi: 10.1111/joac.12426.

Publications & Conferences (cont'd)

Barry, T., and **J. Joseph**. (2021). Confronting a Global Pandemic: Responses from Caribbean Extension Service Providers. *Journal of International Agricultural and Extension Education* 28 (2): 24-33. doi: 10.5191/jiaee.2021.28203.

Prout, P. and **S. Nichols** (2021). Impact of Short-Term Nutrient Supplementation versus Nutrition Education/Counselling on Macro and Micronutrient Intakes among Persons on Maintenance Hemodialysis. *Current Developments in Nutrition* 5 (Supplement 2): 445. https://doi.org/10.1093/cdn/nzab038_057.

Nichols, S., **P. Prout**, N. Dalrymple and **A. Ramcharitar-Bourne**. (2021). Dietary Intake Patterns, Nutrient Adequacy and Associated Factors in a Multi-Ethnic Caribbean Population. *Current Developments in Nutrition*, 5 (Supplement 2):170. https://doi.org/10.1093/cdn/nza_b035_078.

Francis-Granderson, I., **M. Webb**, A. McDonald, D. Buckmire, K. Rocke and W. Archer. (2021). Evaluating Different Teaching Techniques for Implementing the Six Caribbean Food Groups at Primary Schools in Trinidad and Tobago. *Caribbean Journal of Home Economics (CJHE)*, 8 (Special Edition): 2-21. ISSN 0799-0715.

McDonald, A., **I. Francis-Granderson**, L. Dawkins-Moultin, and S. McWhinney. (2021). Community Health Researchers' Perceptions about Obesity Intervention Programs. *Caribbean Journal of Home Economics (CJHE)*, 8 (Special Edition): 22-39.

Haynes, E., Divya Bhagtani, D., Iese, V., Brown, C.R., Fesaitu, J., Hambleton, I., **Badrie, N.**, Kröll, F., Guell, C., Brugulat-Panes, A., Saint Ville, A., Benjamin-Neelon, S.E. Louise Foley, L., Alafia Samuels, T. A., Wairiu, M., Nita G. Forouhi, N.G., Unwin, N. 2020. Food Sources and Dietary Quality in Small Island Developing States: Development of Methods and Policy Relevant Novel Survey Data from the Pacific and Caribbean. *Nutrients* 2020, 12(11), 3350.

Lewis, C., Lennon, A., **Eudoxie, G.**, Sivapatham, P. and, Umaharana, P. 2021. Plant metal concentrations in Theobroma cacao as affected by soil metal availability in different soil types. *Chemosphere*, 262, 127749.

Smith, B.A.M.*, Eudoxie, G., Stein, R., **Ramnarine, R.**, Raghavan, V. 2020. Effect of neem leaf inclusion rates on compost physico-chemical, thermal and spectroscopic stability. **Waste Management**. **114: 136–147**. Publisher: Elsevier.

Hughes, P. M., V. Mlambo and C. H. O. Lallo. 2021. Interactive effects of growth stage and nitrogen fertilization on herbage characteristics and nutritive value of Paspalum atratum. *Grassland Science*, DOI: 10.1002/GRS.12348.

Hughes, P. M., V. Mlambo and C. H. O. Lallo. 2021. Low nitrogen fertiliser rates and stage of maturity influence nitrogen fractionation and in vitro ruminal nitrogen degradability in tropical grasses. *African Journal of Range and Forage Science*. <https://doi.org/10.2989/10220119.2021.1931446>.

De Caires, S.A., **Wuddivira, M.N.**, St. Martin, C., Roopnarine, R., Gordon, A., and Zebarth, B.J. 2021. Multivariate geospatial analysis for predicting soil variability along a toposequence of a watershed in the humid tropics. *Catena* (Elsevier). <https://doi.org/10.1016/j.catena.2021.105919>. **IF 5.198**.

Wuddivira, M.N., Stone, R.J. and Ekwue, E.I. 2021. Soil texture, mineralogy and organic matter effects on structural stability and soil loss of selected Trinidad soils after rainfall. *Trop. Agric. (Trinidad)*, 98 No.3, 302-311. Special issue in commemoration of agricultural legacy through teaching, research and innovation. Extracted from Volume 83, Number 3, 2006. IF 0.250; Citations=12.

Francis, R., **Wuddivira, M.N.**, Gouveia, G.A., Bramble, D.E. 2021. Structural and Hydraulic Responses of Humid Tropical Soils to Lime and Organic Residue Amendments. *Soil Research* (CSIRO publishing). <https://doi.org/10.1071/SR20305>. **IF 1.987; Citation=0**

Roopnarine, R., Eudoxie, G., **Wuddivira, M.N.**, Saunders, S., Lewis, S., Spencer, R., Jeffers, C., Haynes-Bobb, T., Roberts, C. 2021. Integrating the Participatory Approach in Hydro-Climatic Disaster Risk Management (Droughts and Floods) in the Caribbean. *International Journal of Disaster Risk Reduction* (Elsevier), Vol. 66. <https://doi.org/10.1016/j.ijdr.2021.102592>. IF 4.78; Citation=0

De Caires, S., **Wuddivira, M.N.**, Bramble, D.E., Atwell, M., Roopnarine, R., and Farrick, K.K. 2021. Soil sampling strategies for the characterization of spatial variability under two distinct land uses. *Communications in Soil Science and Plant Analysis* (Taylor & Francis). DOI: 10.1080/00103624.2021.1921190. VOL. 52, NO. 19, 2217–2240 IF 0.767; Citations=0.

Melville, T., Sutherland, M. and Wuddivira, M.N. 2020. Assessing trends and predicting the cover management factor in a tropical island state using Enhanced Vegetation Index. *Springer Nature Applied Sciences* (Springer), 2(10): 1-14. <https://doi.org/10.1007/s42452-020-03482-8>. IF N/A; Citations=0.

Atwell, M.A., **Wuddivira, M.N.** 2020. Soil Organic Carbon Characterization in a Tropical Ecosystem Under Different Land Uses Using Proximal Soil Sensing Technique. *Archives of Agronomy and Soil Science* (Taylor & Francis)

Jones, K.R. and **L. Tardieu.** 2021. Giardia and Cryptosporidium in Neo-Tropical Rodents and Marsupials: Is There Any Zoonotic Potential? *Life*. (Online) 11 (3): 256. <https://doi.org/10.3390/life11030256>.

Bekele, F., Bidaisee, G., & Saravanakumar, D. (2021). Examining phenotypic diversity and economic value of cacao (*Theobroma cacao* L.) conserved at the International Cocoa Genebank, Trinidad to support improvement in cocoa yield globally. *Tropical Agriculture*, 97(2).

Kotzebue, J. R. 2021. PPGIS in integrated transport development and the question of legitimacy: Hamburg's motorway tunnel parkland. *Transport Policy*. Under Review JTRP-D-21-00398.

Kotzebue, J. R. 2021. Integrated urban transport infrastructure development: the role of digital social geo communication in Hamburg's TEN-T improvement. *Journal of Transport Geography* Under Review JTRG_2020_855.

Kotzebue, J. R. and Bryan, K. 2021. Smart public transport in Barbados: Experiences with smartphone applications. In: KOTZEBUE, J. R. (ed.) *Towards Sustainable Transport and Mobility-Perspectives on Travelling and Commuting in Small Island States*. Hamburg University Press. Accepted

Kotzebue, J. R. and Townsend, T. 2021. Introduction In: Kotzebue, J. R. (ed.) *Towards Sustainable Transport and Mobility-Perspectives on Travelling and Commuting in Small Island States*. Hamburg Hamburg University Press. Accepted

Kotzebue, J. R. 2021c. ICT in Context- and Community-Sensitive Transport Solution Development in the Man and the Biosphere Area Tobago: The Role of the Digital Capacity In: KOTZEBUE, J. R. (ed.) *Towards Sustainable Transport and Mobility-Perspectives on Travelling and Commuting in Small Island States*. Hamburg Hamburg University Press. Accepted

Marshall, T., Fletcher-Paul, L., Isaac, W., Ganpat, W., and Saint Ville, A. Covid-19 a wake-up call to understanding the secondary impacts of complex disasters on household food security in SIDS of the Caribbean, In Campell Y., and Connell, J. (Eds.) *Coronavirus and Islands: Fracturing the 'Old Normal' in the Caribbean and the Pacific*, Palgrave Macmillan.

Pourghaderi, M., Omidvar, N., Takian, A., Saint Ville, A., Mohammadi K.H, and Eini-Zinab, H., "Who really counts in Iran's National Food Assistance Program? Application of the stakeholder salience model". *Cadernos de Saúde Pública/Reports in Public Health*.

Publications & Conferences (cont'd)

Haynes, E., Bhagtani, D., Iese, V., Brown, C.R., Fesaitu, J., Hambleton, I., Badrie, N., Kroll, F., Guell, C., Brugulat-Panes, A. and Saint Ville, A. (2020). Food sources and dietary quality in small island developing states: development of methods and policy relevant novel survey data from the Pacific and Caribbean. *Nutrients*, 12(11), 3350.

De Caires, S.A., **Wuddivira, M.N.**, Bramble, D.S.E., Atwell, M., Roopnarine, R. and Farrick, K.K. (2021) Soil Sampling Strategies for the Characterization of Spatial Variability Under Two Distinct Land Uses. *Communications in Soil Science and Plant Analysis*. 52 (19): 2217-2240

Gahman, L., **Thongs, G.** and Greenidge, A. (2020) Disaster, Debt, and Underdevelopment. *Palgrave Macmillan Journal of Springer Nature*.

Thongs, G. and Griffith, K. (2020) Building Resilient Caribbean Small-Island Developing States through Community-Based Disaster Risk Perceptions. *Journal of Caribbean Environmental Sciences and Renewable Energy*.

Gahman, L. and **Thongs, G.** (2020) Colonialism, Climate Change, and the Caribbean: A Political Ecology of Hurricanes Irma and Maria. *Transactions of the Institute of British Geographers* <https://doi.org/10.1111/tran.12369>

Books & Book Chapters

Webb, M. (2021). Navigating nutrition during COVID-19. In: *Sports Matter: Views from The UWI Faculty of Sport, 2019-2020*. Funso Aiyejina (Editor). The University of the West Indies Press, Kingston, Jamaica.

Bridgemohan, P. and **Isaac, W.A.P.** 2019. Agricultural Diversification – A Strategy out of Economic Difficulties of the Sugarcane Industry. In: *Development, Political and Economic Difficulties in the Caribbean*. Ann-Marie Bissessar editor, Chapter 14: 187-200. Palgrave Macmillan Publishers.

Bridgemohan, P. and **W. A. P. Isaac** (2019). Agricultural Diversification – A Strategy out of Economic Difficulties of the Sugarcane Industry. In *Development, Political and Economic Difficulties in the Caribbean*. Ed. Ann-Marie Bissessar. Palgrave Macmillan Publishers.

Campo, K.R., Isaac, W., **Badrie, N.**, Webb, M. and Granderson, I. (2019) Beyond the Fields and Tables: Contributions to Health, Nutrition and Well Being in the CARICOM region (abstract). In *Beyond the Kitchen Table: Exploring the Role of Black Women in Global Food Systems*.

Frances Henry, Milena Cabrera Maldonado, **Neela Badrie**, Mónica Moraes R., María Eugenia García, Christina Villamar, Banu Örmeci y Dayra Álvarez (2019). Gender Perspectives- Water Quality in Latin American and Caribbean Homes Water Quality in the Americas: Risks and Opportunities. Pg 434-438. Pg 431-444. The Inter-American Network of Academies of Sciences IANAS, Mexico.

Isaac, W.A.P., Ganpat, W.G., Attzs, M. and Isaac, T. Criminological dimensions of agriculture in the Caribbean. 2019. In: *Caribbean Perspectives on Criminology and Criminal Justice*. Wendell Wallace (editor), Volume 1, Chapter 5: 105-121. Westphalia Press, Washington DC.

Isaac, W.A.P., **W. Ganpat**, M. Attzs and T. Isaac. (2019). Criminological dimensions of agriculture in the Caribbean. In: *Caribbean Perspectives on Criminology and Criminal Justice*. W. Wallace (editor) Volume 1, Chapter 5: 105-121. Westphalia Press, Washington DC.

Isaac, W.A.P., N. Felix, W. G. Ganpat, D. Saravanakumar and J. Churaman. (2019). Sustainable Climate-Smart Agricultural Solutions to Improve Food and Nutrition Security in Trinidad and Tobago. In *Development, Political and Economic Difficulties in the Caribbean*. Ed. Ann-Marie Bissessar. Palgrave Macmillan Publishers.

Isaac WP, Felix N, Ganpat WG, **Saravanakumar D** and Churaman J. 2019. Sustainable climate-smart agricultural solutions to improve food and nutrition systems in Trinidad and Tobago. In: Development, political and economic difficulties in the Caribbean" Editor, A.M. Bissessar (editor) Chapter 8: 88-111 Palgave Mcmillan Publishers.

Khan, A and **Isaac, W.A.P.** 2019. Biological Control in Trinidad and Tobago. In: *Biological Control in Latin America and the Caribbean: Its Rich History and Bright Future*. Joop C. Van Lenteren, Vanda H.P. Bueno, M. Gabriela Luna and Yelitza C. Colmenarez (editors). CAB International, Wallingford, Oxfordshire, UK, Chapter 27: 437-446. ISBN-13: 9781789242430.

Marshall, T., Saint Ville, A., Fletcher-Paul, L. and **Isaac, W.P.** (2021) COVID-19: The Impact of a Complex Disaster on Household Food Security in Caribbean SIDS. In: Campbell Y., Connell J. (eds) COVID in the Islands: A comparative perspective on the Caribbean and the Pacific. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-16-5285-1_23

Khan, A and **Isaac, W.P.** 2021. Control biológico de la Trinidad y Tobago. En: Control biológico en América Latina y el Caribe: su rica historia y futuro brillante. Joop C. Van Lenteren, Vanda H.P. Bueno, M. Gabriela Luna and Yelitza C. Colmenarez (editors). CAB International, Wallingford, Oxfordshire, UK, Chapter 29: 457-465. ISBN: 978-84-200-1265-0.

Isaac, W.P., Ganpat, W.G., Bridgemohan, P. and Attzs, M. 2020. Defining a policy nexus for sustainable agriculture and food security in the Caribbean Region. In *Global Climate Change: Resilient and Smart Agriculture*. V. Venkatramanan, Shachi Shah and Ram Prasad (editors). Springer Nature Singapore Pte Ltd., Chapter 1: 1-13. ISBN: 978-981-32-9855-2.

Saravanakumar, D. 2021. A guide to good agricultural practices for commercial production of ginger under field conditions in Jamaica. Kingston, FAO. ISBN: 978-92-5-133971-8.

Roopnarine, R and Lee Look, G. (Eds.), (2020). Training Manuals on Water Use Efficiency in Agriculture for Caribbean SIDS, CapNet UNDP: <https://cap-net.org/waterandagriculture/>

Roopnarine, R and Lee Look, G. (Eds.), (2020). Improving Water-Related, Food Production Systems in Caribbean Small Island Developing States (SIDS)-Training Manuals, CapNet UNDP : <https://cap-net.org/aquaculture4caribbean/>

Conference Papers & Proceedings

Isaac, W., T. Isaac and **M. Webb.** (2021). Caribbean Cuisine: The Colonization of Taste. Paper presented at the Just Food: Because it is never just food Conference by ASFS, AFHVS, CAFS, SAFN 9 – 15 June 2021. The Culinary Institute of America, New York University.

Moise C., and **Webb, M.** (2021). Depression and Anxiety among Students at University of the West Indies - St. Augustine: Prevalence and Associated Factors with Special Emphasis on Type of Diet. *West Indian Medical Journal*, 69 (Supplement 2). ISSN 2309-5830 WIMJAD.

Dowrich-Prince, M., **Webb, M.**, Bawa, S., Granderson, I., and Dyett, P. (2021). The Ban on Sugar-Sweetened Beverages: Perceptions of Parents. *West Indian Medical Journal*, 69 (Supplement 2). ISSN 2309-5830 WIMJAD.

Bhagtani, D. Hayes, E., Guell, C., Hamelton, I.R., Brown, C., **Badrie, N.**, Forouhi, N.G., Unwin, N. on behalf of the CFAH team (2020). The challenges of developing linked quantitative and qualitative methods to investigate associations between food sources and diet quality in Small Island Developing States. Society for Social Medicine 64th Annual Scientific Meeting, University of Cambridge, United Kingdom. (refereed)

Publications & Conferences (cont'd)

D Bhagtani, D., Augustus, E., Haynes, E., St Ville, A., Lese, V., Fesaitu, J., **Badrie, N.**, Kroll, F., Foley, L., Hambleton, I., Benjamin-Neelon, S.E., Nigel Unwin, N. on behalf of the CFAH. (2021) Team. Prevalence of food insecurity and its associations with socio-demographic factors, food sources and dietary diversity in Small Island developing States. In : "Harnessing cooperation and localism for innovation to overcome underfunded and marginalised local food systems: lessons learned from local food stakeholders in Small Island Developing States. Society for Social Medicine Society for Social Medicine & Population Health 65th Annual Scientific meeting, UK 15-17th September, 2021. *Journal of the Epidemiological Community of Health*, 4 September 2021. https://jech.bmj.com/content/75/Suppl_1/A52.2

Isaac, W.P., Isaac, T. and Webb, M. Caribbean Cuisine: The Colonization of Taste. Presented at the Just Food: *because it is never just food Conference by ASFS, AFHVS, CAFS, SAFN* 9 – 15 June, 2021. The Culinary Institute of America, New York University.

Saravanakumar, D 2021. 'Guidelines on registration of microbial pesticides – an Overview'. In: International conference on Industrial perspectives, challenges and strategies in the development of novel Bio-pesticides: Its implication in sustainable pest and disease management' Jointly organized by the Tamil Nadu Agricultural University, India and Shastri Indo-Canadian Institute (SICI) held on 11-12 March, 2021.

Okoye, P. and **Saravanakumar, D**. 2021. 'Differential Expression of proteins in *Bacillus amyloliquefaciens* primed hot pepper plants against *Phytophthora capsici*' at the International conference on Industrial perspectives, challenges and strategies in the development of novel Bio-pesticides: Its implication in sustainable pest and disease management' Jointly organized by the Tamil Nadu Agricultural University India and Shastri Indo-Canadian Institute (SICI) from 11-12 March, 2021.

Fiedler, Sabine; Atwell, Melissa; **Wuddivira, Mark**; Glasner, Björn; Vetter, Vanessa; Herrmann, Ludger; Jungkunst, Hermann F. 2021. Can open savannas in Trinidad's tropical forest ecosystem be explained in terms of soil science? Poster presentation at the Annual Conference of the German Soil Science Society (DBG) held in Trier.

Wuddivira, M.N., De Caires, S., and **Roopnarine, R**. 2021. Electromagnetic Geophysical Techniques for Ground Water Monitoring and Management. IWRCs 2021, Integrated Water Resources and Coastal Symposium: Island Life Water from Ridge to Reef. Radison, Port of Spain, Trinidad and Tobago. March 17-19, 2021.

Wuddivira, M.N. 2021. Food Security in Trinidad and Tobago and the Impact of COVID 19: New developments and key challenges. Let's talk Thursday hosted by the Institute for Critical Thinking in Collaboration with the Pan American Development Foundation. Institute of Critical Thinking, The University of the West Indies, St. Augustine. February 18, 2021.

Simone Lewis and **Ronald Roopnarine**- Integrated Water Resources and Coastal Symposium 2021- Integrating the Participatory Approach in Hydro-Climatic Disaster Risk Management (Droughts and Floods) in the Caribbean- Conference Presentation- March 18th ,2021.

Tardieu, L. and G. W. Garcia. 2021. 'Wildlife For Sustainable Food Production, An Assessment of Two Neo-Tropical Species Production Models' Poster Presented at the Celebrating a Hundred Years of Agriculture Research and Innovation: Perspectives on Tropical Food and Agricultural Systems Virtual Conference. Faculty of Food and Agriculture, The University of the West Indies. St. Augustine.

Saint Ville, A. The Faculty of Food and Agriculture post Covid-19 use of ICT technologies. Presentation at the IICA Caribbean Digital Technology Symposium (virtual), July 15, 2021.

Marshall, T., Fletcher-Paul, L. Isaac, and **Saint Ville, A.** "The policy gap: Evidence from household food security coping strategies in the COVID-19 pandemic". Paper presented at the 65th CARPHA Health Research Virtual Conference, June 16-19, 2021.

Fair, O., Hickey, G.M., **Saint Ville, A.** and Phillip, L. (2021). Improving food and nutrition in the CARICOM: Enhancing Nevis's School Meals Program through a local and sustainable food procurement system. Poster presentation at the North American Regional Social Networks Conference of the International Network for Social Network Analysis (INASN). January 25-28, 2021.

Kotzebue, J.R. 2021a. Digitalisation of Mobility and Transport in Trinidad and Tobago: Rethinking the paradigm. *Transportation Symposium 2021: Towards A Sustainable, Efficient Transportation System*. University of West Indies The University of West Indies.

Mathura, N.M. and **Farrick, K.K.** (2021) Analyzing Land Use Impacts on Streamflow Response in a Tropical Watershed: A hydrometric and geochemical approach. International Tropical Islands Water Conference, Hawaii, USA (Online oral presentation).

Francis, J, Wuddivira, M. and **Farrick, K.** (2021) Making it Drier: How pine forests influence the water dynamics in Tropical Forests. Integrated Water Resources and Coastal Symposium, Port-of-Spain, Trinidad and Tobago (Oral presentation).

Sergio Camejo, Vikki Lee, Joshua Ali, Samuel Preddie and **Gabrielle Thongs**. The Power of People and Maps: Co-designing DRR at UWI, St Augustine. The Citylab conference on *Caribbean Education for Sustainable Urban Development - Online International Conference. 1st-2nd October 2020.*

Monographs

Hutchinson, S. and Girvan, A. (2021). Jamaica Caribbean Spiny Lobster Value Chain Analysis Report. Barataria, Trinidad: Caribbean Natural Resources Institute (CANARI). https://canari.org/wp-content/uploads/2019/10/Jamaica-CbeanSpinyLobsterVCA_StewardFish_Final.pdf.

Hutchinson, S. and Girvan, A. (2021). Barbados Mahi Mahi Value Chain Analysis Report. Barataria, Trinidad: Caribbean Natural Resources Institute (CANARI). https://canari.org/wp-content/uploads/2019/10/Barbados-MahiMahi-VCA_StewardFish_Final.pdf.

Hutchinson, S. and Girvan, A. (2021). St. Vincent and the Grenadines Queen Conch Value Chain Analysis Report. Barataria, Trinidad: Caribbean Natural Resources Institute (CANARI). https://canari.org/wp-content/uploads/2019/10/SVG-QueenConchVCA_StewardFish_Final.pdf.

Other Publications

Maharaj, A.S., **Badrie, N.** and Singh, M. 2020. Evaluation of the motivational factors promoting the consumption nutraceuticals sold at health food stores in Trinidad. *Farm and Business* (2020). *The Journal of the Caribbean Agro-Economic Society*. 12 (1): 45-64. <https://ageconsearch.umn.edu/record/307706?ln=en>

Technical Reports and Manuals

The Caribbean Public Health Agency (CARPHA) and IWeco: Integrated Water, Land And Ecosystems Management Project - Developing a Regional Action Framework for Integrated Water Resources Management (IWRM) for the CARICOM Region. - Regional IWRM Conceptual Framework.

Wuddivira, M.N. (member of the multidisciplinary team). Virtual Centre of Excellence for Agriculture and Biotechnology (VCoE-AB). Report of the Multi-Disciplinary Team (MDT) to the Cabinet of Trinidad and Tobago on the development of a Centre of Excellence (CoE) in Agriculture and Biotechnology (February 2021).

Publications & Conferences (cont'd)

Roopnarine, R. United Nation Environmental Programme (UNEP)/CapNet UNDP/Global Water Partnership Organization. SDG 661 Pilot project Integrating freshwater data into sector-wide decision making to improve the protection and restoration of freshwater ecosystems- Curriculum Development of SDG 6.6.1: Training Manual: Integrating Data To Improve The Protection And Restoration Of Freshwater Ecosystems

Eudoxie, G., Smith, B., Thompson, J and Lucas, J. 2020. A Training Manual on Water Use Efficiency in Agriculture. Caribbean WaterNet, CapNet UNDP.

Saravanakumar, D. 2021. Guidelines for seed rhizome production. Kingston. FAO. Technical manual: <https://www.fao.org/documents/card/en/c/CB3363EN/>

Roberts-Nkrumah, R. 2021. Dwarf Pommecythere Production Manual.

PhD and MPhil Theses

Tardieu, L. "The Black-eared opossum (*Didelphis marsupialis insularis*, Allen 1902) as a species for intensive production in Trinidad and Tobago." PhD thesis, The University of the West Indies, 2020.

Papers in Non-Refereed Journals

Maharaj, A.S., **Badrie, N.** and Singh, M. 2020. Evaluation of the motivational factors promoting the consumption nutraceuticals sold at health food stores in Trinidad. Farm and Business (2020). The Journal of the Caribbean Agro-Economic Society. 12 (1): 45-64. <https://ageconsearch.umn.edu/record/307706?ln=en>

Newspaper Articles

Webb, M. (2021). The Traveling Athlete: Eating on the Road. Trinidad and Tobago Guardian. <https://www.guardian.co.tt/sports/the-travelling-athlete-eating-on-the-road-6.2.1342128.c229bc2967>. June 13, 2021.

Webb, M. (2021). Traveling: The Anti-Jet Lag Diet. Trinidad and Tobago Guardian. <https://www.guardian.co.tt/sports/travelling-the-antijet-lag-diet-6.2.1335380.64594c8faa>. May 30, 2021.

FACULTY OF HUMANITIES & EDUCATION

Journal Publications

Refereed Articles (Single Author)

Ali, T. (2020) "To Me, I No Man Yet!": Indo-Trinidadian Manhood in Samuel Selvon's A Brighter Sun and V. S. Naipaul's A House for Mr. Biswas. *Journal of West Indian Literature*, vol. 28, no. 2: 113-127. University of the West Indies, <https://www.jwilonline.org/downloads/vol-28-no-2-november-2020/>

Chinien, S. (2021) « L'empreinte à Chamoiseau », *Interculturel*, N° 27, Lecce (Italy), Alliance Française de Lecce: 87-119.

Chinien, S. (2020) « Pré-littérature ou littérature-monde : une étude des oeuvres de Chamoiseau », *Interculturel*, N° 25, Lecce (Italy), Alliance Française de Lecce: 147-166.

Evans, R. S. (2021) "Ou ni right-la pou remain silans: The case for a standard Kwéyòl translation of the pre-trial right to silence." *Journal of Pidgin and Creole Languages*, 36.1: 175-200. <https://doi.org/10.1075/jpcl.00072.eva>

Evans-Dixon, K. and L. Ferreira. (2020) "The Field Dependence/Independence Cognitive Construct: Exploring the Relationship Between ESL Students' Cognitive Styles and their Performance in Face-to-Face and Online Learning Activities." In *Negotiating Crosswinds: Trans-linguality, Transculturality and Trans-identification in the Greater Caribbean*. Eds. Nicholas Faraclas, Ronald Severing, Christa Weijer, Elisabeth Ehteld, Wim Rutgers. University of Curaçao, 107-122.

Ferreira, J. S. and N. Hodge. (2021) "Creole in Education in Trinidad & Tobago." *Kréolistika: Revue des mondes créoles (CRILLASH)* No. 1.

Lee-Piggott, R. (in press). The 'how', 'why' and 'what for' of school members' responses to their new principals' leadership. *Caribbean Curriculum*.

Maharaj-Sharma, R. (2020) Reflecting on practice and beliefs can make graduate supervision a craft. In E. Blair, D. Watson & S. Raturi (Eds.), *Graduate Research Supervision in the Developing World: Policies, Pedagogies, and Practices*. Abingdon, Oxon: Routledge. 110-122.

Maharaj-Sharma, R. (2021) A WIHIC exploration of secondary school science classrooms – A case study from Trinidad & Tobago. *Research in Pedagogy*, 11(1):165-179.

Mideros, D. (2020) Out-of-class learning of Spanish during COVID-19: A case study in Trinidad and Tobago. *Studies in Self-Access Learning Journal*, 11(3): 199–219. <https://doi.org/10.37237/110308>

Regis, H. (2020) Subjection and Resistance: Landscapes, Gardens, Myths and Vestigial Presences in Olive Senior's *Gardening in the Tropics*. *eTropic: Journal of Studies in The Tropics*, vol. 19, no.1.

Regis, H. A. Lundberg, E. de la Fuente and J. Agbonifo. (2021) Eds. "Tropical Landscapes: Nature-Culture Entanglements" *eTropic: Journal of Studies in The Tropics*, special issue.

Skeete, G. (2021) Frank Discussions in Verse: What Women Tell Each Other in Opal Palmer Adisa's *4-Headed Woman*. *Caribbean Journal of Education* Vol 43, No 1, Special Issue on 'Poetry Beyond Borders'.

Skerrit, P. (2020) Using a bilingual approach to teach struggling adult deaf and hard of hearing (DHH) readers in Trinidad and Tobago. *Inclusive Practices & SEN*, 6:19-23. www.iatefl.org/through an interpretation/use argument. *Studies in Educational Evaluation*

Refereed Articles (Multiple Authors)

Cook, L.D. and **Kamalodeen, V.J.** (2020) Combining mixed methods and case study research (MM+CSR) to give mixed methods case study designs. *Caribbean Journal of Mixed Methods Research*, 1(1): 47- 76.

Ferreira, J. S. and M. Cavalcanti Cunha (2021) "Desenvolvimento do Português como Língua de Herança em Trinidad e Tobago: Aquisição e Aprendizagem /The Development of Portuguese as Heritage Language in Trinidad & Tobago: Acquisition and Learning". *Revista FSA, Teresina*, v. 18, n. 04: 159–171. DOI: <http://dx.doi.org/10.12819/2021.18.4.9>

Jaggernauth, S. J., Garibsingh, A., & Hunte, A. (2020) Teachers' perspectives of the introduction of school based assessment in mathematics in Trinidad and Tobago. *Caribbean Educational Research Journal*, 6(1): 1-33. https://www.cavehill.uwi.edu/fhe/education/publications/past-issues/volume-6-number1-special-issue-leveraging-dialo/articles/6_cerj-vol-6-no-1-jaggernauth,-garibsingh,-hunte.aspx

Joong, Y., **Ramsawak-Jodha, N.**, Wintz, P., Gibbs, A. S., and Hutton, D. (2020) Understanding the ecologies of education reforms: Comparing the perceptions of secondary teachers and students in Jamaica, Guyana, and Trinidad and Tobago. *Caribbean Journal of Mixed Methods Research*, 1(1):134-166.

Kaloo, R.C., Mitchell, B., and **Kamalodeen, V.J.** (2020) Responding to the Covid-19 pandemic: Challenges of teacher education at the School of Education, UWI, Trinidad and Tobago. *Journal of Education for Teaching*, 46(4): 452-462. <https://doi.org/10.1080/02607476.2020.1800407>

Kamalodeen, V. J., and Taylor, M. (2021) Teacher learning in action research: Insights from information technology/ computer science (it/cs) teachers in the post-graduate diploma in education programme at the School of Education, The University of the West Indies, St. Augustine. *Caribbean Curriculum*, 27. <https://journals.sta.uwi.edu/cc/index.asp?action=fullTextPerma-Link&articleId=6872&galleyId=6892>

Publications & Conferences (cont'd)

Persad, A.S., & Maharaj-Sharma, R. (2020). The impact of literacy strategies on form 1 secondary students' motivation and performance in integrated science. *Caribbean Curriculum*, 27: 192-214.

Pluim, G., Nazir, J., & Wallace, J. (2020) Curriculum integration and the semicentennial of Basil Bernstein's classification and framing of educational knowledge. *Canadian Journal of Science, Mathematics and Technology Education*, 20(4): 715-735. <https://doi.org/10.1007/s42330-021-00135-9>

Roberts, J., Phipps, S., Subeeksingh, D., Jaggernauth, S. J., Ramsawak-Jodha, N., & Dedovets, Z. (2020) Reflections on the effects of concrete mathematics manipulatives and student engagement and problem solving in three secondary school in Trinidad and Tobago. *Caribbean Curriculum Special Issue on Action Research*, 27. <https://journals.sta.uwi.edu/cc/index.asp?action=fullTextPermaLink&articleId=7005&galleyId=6895>

Wintz, G., & Abdul-Majied, S. (2021) Children's conflict: Views of Caribbean early childhood teachers in Guyana and Trinidad and Tobago. *International Journal of Early Years Education*, 29(2).

Wong, J., & Lee-Piggott, R. (2021). A clinical supervision intervention in questioning: An action research study. *Educational Action Research*. <https://doi.org/10.1080/09650792.2021.1932543>

Books

Single Authored Books

Maharaj, V. (2021) *The First Naipaul World Epics: From The Mystic Masseur to An Area of Darkness and Beyond*. Bloomsbury.

Remy, J., *The Saga of Milton Wire Austin and the Fonclaire Steel Orchestra*, Trinidad, Jhullian Graphics Communication Ltd., 2021 (ISBN 978-976-8255-998-3)

Steele, G.A. (2021) *Communication, Culture and Conflict*. Kendall Hunt Publishing Company: <https://he.kendallhunt.com/product/communication-culture-and-conflict>

Teelucksingh, J. (2020) *Rise and Fall of an Empire: A Progressive Caribbean*. New York: Peter Lang.

Teelucksingh, J. (2020) *Beyond the Legacy of the Missionaries and East Indians*. Netherlands: Brill.

Book Chapters

Abdul-Majied, S. (2021) "Ting-a-Ling!" Snack time culture and friendship bonds in young Caribbean children (20 pages). In *Reconceptualising quality early childhood education, care and development: Understanding the Child and Community*. Z. Kinkead-Clark & K. Escayg. Palgrave (Eds.). Macmillan, Cham. 221-239. https://doi.org/10.1007/978-3-030-69013-7_10

Bonate, L. J. K. (2020) Manuscript Libraries in Muslim Africa. In *Handbook of Islam in Africa*. Eds. Toyin Falola, Fallou Ngom, and Mustapha H. Kursi. Palgrave Macmillan.

Bonate, L. J. K. (2020) Muslim Family under Portuguese Rule: Shari'a and Matrilineal Custom in Colonial Northern Mozambique. In *Matrilineal Islam*. Ed. Abbas Panakkal. The World Muslim Communities Council Press, UAE.

Braithwaite, B. (2020) Sociolinguistic sketch of Providence Island Sign Language. In *Emerging Sign Languages of the Americas*. Olivier Le Guen, Josefina Safar and Marie Coppola (Eds.) De Gruyter Mouton, 2020, pp. 431-434. <https://doi.org/10.1515/9781501504884-013>

Braithwaite, B. (2020) Emerging sign languages in the Caribbean. In *Emerging Sign*. In *Emerging Sign Languages of the Americas*. Olivier Le Guen, Josefina Safar and Marie Coppola (Eds.) De Gruyter Mouton, 2020, pp. 251-286. <https://doi.org/10.1515/9781501504884-006>

Carter, B. (2020). Taking research from periphery to core in a Caribbean language centre. *Language Learning in Higher Education (LLHE) Special Issue 2019-2020*. Enhancing the role of European university language centres: Past achievements and future perspectives, CercleS 30th anniversary, 10(2): 511-519. <https://doi.org/10.1515/cercles-2020-2032>

Carter, B. (2021). Foreign language education: The role of the Centre for Language Learning. In S. Gift (Ed.) *Caribbean quality culture: Persistent commitment to improving higher education*. UWI Press. 186-204.

Jackson, E. (2021) Cosmopolitan Attitudes and Cosmopolitan Identities. In *The Shadow Lines*. Ed. Amitav Ghosh. *South Asian Review*. <https://doi.org/10.1080/02759527.2021.1878799>.

Matthews, G. (2020) Lyrics to Build A Nation. In *Regional Discourse on Society and History Shaping the Caribbean*. Eds. Jerome Teelucksingh and Shane Pantin. New York: Peter Lang Publishing. 159-174.

Pierre-Robertson, P. (2021) Literature as an agent of change. In *Gender and Domestic Violence in the Caribbean*. A. M. Bissessar, C. Huggins (Eds.), (pp. 87-103). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-73472-5_6

Ramsay, A. (2021) Jamettes, Mas, and Bacchanal: A Culture of Resistance in Trinidad and Tobago. In *The Routledge Companion to Black Women's Cultural Histories: Across the Diaspora, From Ancient Times to the Present*. Ed. Janell Hobson. New York: Routledge. 213-222.

Steele, G. A., & McConney, D. (2021). Mediated communication and relational maintenance and satisfaction in romantic, long-distance relationships. In *Casing Mediated Communication*. Eds. Corey Liberman and Kevin B. Wright. Dubuque, IA: Kendall Hunt. ISBN 978-1-7924-4675-7. 377-404.

Steele G.A. (2021) Exploring Domestic Violence Issues and Resolutions Through Epic Theatre and Forum Theatre: The Good, the Baddesse and the Ugly. In: *Gender and Domestic Violence in the Caribbean. Gender, Development and Social Change*. Eds. A.M. Bissessar and C. Huggins. Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-030-73472-5_4

Walcott- Hackshaw, E. (2020) *La Saison des cerfs-volants* French Translation of *Four Taxis Facing North* Trans. Christine Raguet. Switzerland: Editions Zoe.

Walcott- Hackshaw, E. (2021) Aimé Césaire, *The Caribbean Biography Series*. Kingston: The University of the West Indies Press.

Walcott-Hackshaw, E. (2020) *Stick No Bills*. Leeds: Peepal Tree Press.

Book Chapters – Multiple Authors

Ali, T. and N. Ajodha. (2020) "A Comparative Study on Teacher Perception of the Use of an English Lexifier Creole as Contributing to Student Failure on the CSE English Language Examination." In *Negotiating Crosswinds: Trans-linguality, Transculturality and Trans-identification in the Greater Caribbean*. Eds. Nicholas Faraclas, Ronald Severing, Christa Weijer, Elisabeth Echteld, Wim Rutgers. University of Curaçao. 89-106.

Braithwaite, B. and K. Ali. (2020) "Bay Islands Sign Language: A sociolinguistic sketch." In *Emerging Sign Languages of the Americas*. Eds. O. Le Guen, J. Safar and M. Coppola. De Gruyter Mouton. 435-438.

Publications & Conferences (cont'd)

Lee-Piggott, R., Conrad-Popova, D. & Conrad, D. (2021). Doing social justice leadership in challenging circumstances: Principals' perspectives. In *Neoliberalism and education systems in conflict: Exploring challenges across the globe*. Eds. K. Arar, D. Örüçü & J. Wilkinson Routledge 166-182. <https://www.routledge.com/Neoliberalism-and-Education-Systems-in-Conflict-Exploring-Challenges> Across/Arar-Orucu-Wilkinson/p/book/9780367362935

Mideros, D., **N. Roberts, P. Palma** and N. Cardona Villa. (2020) "Aprendientes autónomos de español en un contexto del Caribe angloparlante: Estudio fenomenológico en Trinidad y Tobago", [Autonomous Learners of Spanish in an Anglophone Caribbean Context: A Phenomenological Study in Trinidad and Tobago] in *Navigating Foreign Language Learner Autonomy*. Eds. Christian Ludwig, Maria Giovanna Tassinari and Jo Mynard. Hong Kong: Candlin and Mynard." 429-459 (Spanish) 421-428 (English short version).

Walcott-Hackshaw, E. (2021) "Graduate Studies: Research Innovation and Entrepreneurship" In *Caribbean Quality Culture – Persistent Commitment to Improving Higher Education*, Ed. Sandra Gift. The University of the West Indies Press. 171-185.

Walcott-Hackshaw, E. (2021) "The Good Daughter: Danticat's Migrating Memories". In *The Bloomsbury Handbook to Edwidge Danticat*, Eds. Jana Evans Braziel and Nadège T. Clitandre London, New York: Bloomsbury. 177-188.

Conference Presentations

Centre for Language Learning

Dallier, M. (2021). Identité et enseignement apprentissage du FLE; étude de cas auprès d'étudiants Trinidiens. (Identity and FLE teaching and learning: a case study with Trinidadian students.) [Paper presentation]. XVe Congrès Mondial de la FIPF (Fédération Internationale des Professeurs de Français/ International Federation of French Teachers), Online Conference, 9-14 July 2021, Nabeul, Tunisia. [Accueil | XVe Congrès mondial de la FIPF](#).

Mideros, D. (2021) Promoting learning Spanish beyond the classroom in a corporate setting. Paper presented at the Independent Learning Association Conference: Developing Learner Autonomy in Language Learning, June 28-30, Universidad Autónoma de México.

SCHOOL OF HUMANITIES

Department of History

S.A. Singh

Girmit Charcha: Online Forum on the Indian Diaspora. 12 June 2021. Paper presented: "Indians in Trinidad: A Historical Perspective."

S.A. Singh

CAPE Workshop: Online Forum. 5 June 2021. Seminar presented: "Mohandas Karamchand Gandhi – Mahatma Gandhi (1869-1948)."

S.A. Singh

Regional Secondary Schools Virtual Lecture Series 2020-2021. The Centre for Reparations Research at the University of the West Indies. 28 April 2021. Paper presented: "Indian Indenture in the Caribbean."

S.A. Singh

Global Indian Podcast Series. Online Forum. 9 February 2021. "Religion and Social Identity among Indians in The Caribbean."

S.A. Singh

"Hindus in the Indentured Indian Diaspora." Webinar. Hindu University of America. Orlando, Florida, 22 July 2020. Paper presented: "Hindus in the Caribbean."

L. Bonate

"Radicalização de jovens muçulmanos". Seminar Terrorismo e Indentidade Religiosa em Cabo Delgado, Associação Moçambicana para Desenvolvimento e Ensino (ADEF) and Centro de Divulgação do Islão de Moçambique (CEDIM), Maputo, Mozambique, 2 July 2021.

L. Bonate

"Como nasce um jihad: algumas hipóteses para o caso de Cabo Delgado". Seminar Moçambique e a violência em Cabo Delgado: que moçambicanidade temos? by the Centro de Estudos Sociais (CES), University of Coimbra, Portugal, 26 June 2021.

L. Bonate

"Literacia em contextos islâmicos africanos: usos seculares da escrita arabe no norte de Mocambique." Seminar Series History of Africa in Debate by the Institute for Social Sciences (ICS), University of Lisbon, Portugal and University of the State of Rio de Janeiro (UERJ) and Federal University of Rio de Janeiro (UFRJ), Brazil, 15 June 2021.

L. Bonate

"How the Jihad is Born: Cabo Delgado as a Case Study". Seminar Series Trans-Local Entanglements: Jihads and Wars on Terror in Contemporary Africa. University of Naples L'Orientale, Italy, 20 May 2021.

L. Bonate

"O regional e o global na insurgência de Cabo Delgado". Seminário Internacional. O Preço do Silêncio: A Guerra em Cabo Delgado. Universidade de Campinas, Brazil, 4 April 2021.

L. Bonate

"Causas de Conflito em Cabo Delgado, Islão e Accão de Estado Moçambicano." Seminário Internacional Terror ao Norte de Moçambique. Causas e Consequências para a Segurança Internacional. Africa Session, Global Strategic Platform, State University of California and Maritime Academy, USA, 10 April 2021.

L. Bonate

"A escrita árabe no norte de Moçambique". Seminário Internacional Novas epistemologias sobre a História da África. Revista África e Africanidades (Brazil), 17 January 2021.

L. Bonate

"Os Desafios de Investigar as Sociedades Muçulmanas da Província de Nampula: As Experiências de Pesquisa." A AMEA – Associação Moçambicana de Estudos Aplicados, Nampula, Mozambique, 6 August 2020.

L. Bonate

"Islão e insurgência em Cabo Delgado". Seminário "Poder, religião e conflitualidade" na série de Como Está Cabo Delgado, Observatório do Meio Rural, Mozambique, 19 August 2020.

G. Matthews

"The Mighty Sparrow and the Doctor: A Calypsonian's Critique of the Administration of Dr. Eric Williams 1956 – 1966" in Panel #3: From Kaiso to Soca: History, Calypso & Our Changing Societies in Panchayat: The Mas(s) In We Symposium of the Faculty of Humanities and Education, Department of Creative and Festival Arts of the UWI, St Augustine Campus, February 25, 2021.

Department of Literary, Cultural and Communication Studies

D. W. Brunton

The Creole Web: Thirdspaces and Identity-making. Caribbean Studies Association Conference 2021

D. W. Brunton

The Creole Web: Creolité as a Digital Logic. International Association of Media and Communications Researchers (IAMCR) Conference 2021

E. Jackson

"Doris Lessing and Cosmopolitanism", Doris Lessing 100 Conference, University of East Anglia, UK, September 2019 (invited by the conference organizers)

Publications & Conferences (cont'd)

H. Regis

Indigenous Healing Folkways in the selected fictions of Wilson Harris." Blood on the Leaves and Blood on the Roots: Reconsidering Forms of Enslavement and Subjection across Disciplines, The University of Warwick, June 24th-26th 2021.

G. Skeete

"Storifying Caribbean Cricket: Voice and Perspective in Paul Keens-Douglas's 'Tanti at de Oval' ", Stylistics, Critical Discourse Analysis, & Language Use in the Caribbean Online Conference, The University of Trinidad and Tobago's Centre for Education Programmes. 2nd – 3rd April 2021

Steele, G. A., & McConney, D. (2020, November 21). Researching mediated communication in romantic long-distance relationships. Panel: Mediated communication at the crossroads: Case studies to examine the current state of CMC across contexts and content. National Communication Association Conference, USA, Sponsor: Human Communication & Technology Division, November, Sat, 11/21

Steele, G. A. (2020, November 21). The global and global crossroads in contemporary Caribbean and Western interpersonal scholarship. Panel: Lack of representation within samples: Problems and Solutions. National Communication Association Conference, USA, Sponsor: Interpersonal Communication Division, Sat, 11/21

Steele, G. A. (2021, April 2). Media representation of gender-based violence. Stylistics and Critical Discourse Analysis Conference. University of Trinidad and Tobago. Virtual.

Steele, G. A. (2021, July 12-14). Media coverage of domestic violence: Communicating critical consciousness through the Theatre of Baddesse. International Association for Conflict Management. Virtual

Department of Modern Languages and Linguistics

T. Ali

"Cultivating Positive Masculinity: Building Next Generation Men!" 3rd International Men Engage Ubuntu Gender Justice Symposium, 2021.

A. Ibrahim-Ali

"Academic Writing: Developing the Creative and Critical Thinker" SCDA 2021-Stylistics, Critical Discourse Analysis, and Language Use in the Caribbean

J. Dennis

"Welcome to My World: Countering Global Populism in the Parallel Universe of Ifá Traditions in the Caribbean" 21st Annual SALISES Conference: The Rise of Global Populism and its Policy Impact on Caribbean Development

A. King

"Academic Writing: Developing the Creative and Critical Thinker" (with Dr. Amina Ibrahim-Ali) SCDA 2021- Stylistics, Critical Discourse Analysis, and Language Use in the Caribbean

Elizabeth Walcott-Hackshaw

"Reading from Six Writers" 2020 International Virtual Literary Conference: The Literature of Trinidad and Tobago 1980-2020, Department of Literary Cultural and Communication Studies (LCCS), The UWI St. Augustine

B. Braithwaite

"Complex dynamics in relationships in sign language documentation" (Special Panel with Lynn Hou, Erin Wilkinson, Rodney Adams, Hope Morgan, Margaret Odhiambo) 7th International Conference on Language Documentation and Conservation 2021 (Recognizing Relationships)

B. Braithwaite

"Sign Language rights for all? A multimodal Critical Discourse Analysis of language use and representation by the Trinidad and Tobago Association of the Hearing Impaired." Caribbean Discourses: Stylistic and Critical Discourse Approaches to Language Use, Virtual Conference, The University of Trinidad & Tobago

B. Braithwaite

"Caribbean methodologies for language research." Caribbean Research Methodologies Online Seminar

R. Figuera

"The Short Story as Socially-Constructed Genre." Caribbean Discourses: Stylistic and Critical Discourse Approaches to Language Use Virtual Conference, The University of Trinidad & Tobago

SCHOOL OF EDUCATION

Lewis, L., Assoon, S., Pierre-Mitchell, B., Craig, R., & **Abdul-Majied, S.** (2021, August 27-28). The STEM early childhood teacher education project [Poster Presentation]. Inter-American Teacher Education Network Virtual Seminar 2021.

Abdul-Majied, S. (2020, October 27-28). COVID-19 school disruption: Understanding Caribbean early childhood teachers' professional experiences. In European Early Childhood Education Research Association, Webinar 5: Perspectives on Pedagogy [Webinar] International Narratives about COVID - 19 and Early Childhood, EECERA Online Convocation.

Herbert, S., **Abdul-Majied, S.** & Dyer Regis, B. (2020, May). The whole child in school reopening: Ensuring and maintaining healthy learners. In The UWI, School of Education, Educating the whole child in pandemic school closure and reopening [Webinar]. The University of the West Indies, St. Augustine Campus, The School of Education Webinar Series.

Abdul-Majied, S. & The Early Childhood Caravan Team (2020, August). Chat & Chai #1- Covid 19 Impact on ECCE Teachers [Webinar]. No link available.

Abdul-Majied, S. & The Early Childhood Caravan Team (2020, August). Chat & Chai #2 Straight Talk: Covid-19 Impact on ECCE Teachers. [Webinar]. No link available.

Abdul-Majied, S. (2020, August). Engaging younger learners in the COVID-19 era: Conversation with principals and primary school teachers. [Presentation]. In Primary Principals' Webinar.

Dedovets, Z. (2021, August 11-13). Developing an Alternative Thinking Style in the Context of a Problem-Based Approach [Paper Presentation]. 35th BARCELONA International Conference on Economics, Management, Humanities and Social Sciences, Barcelona, Spain. Note: The presentation was adjudged the best paper.

De Lisle, J. (2021, April 8-12). Theorizing on the marginalization of boys and girls in Caribbean schooling [Paper Presentation]. American Educational Research Association 2021 Annual Meeting, Virtual.

De Lisle, J. & Bowrin-Wiliams, C. (2021, November 17). What can Caribbean studies on school climate teach us about reducing school violence in Trinidad and Tobago? [Paper Presentation]. Trinidad and Tobago Association of Teacher Educators Virtual Conference 2021.

De Lisle, J. (2021, November 8-12). A participatory mixed methods evaluation to judge the effects of a STEM out-of-school programme in Trinidad and Tobago [Paper Presentation]. American Evaluation Association 35th Annual Conference, Virtual.

De Lisle, J. (2020, December 17). Appropriate methodology, sound methods first [Paper Presentation]. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

De Lisle, J. (2020, October 26-31). A multi-site, mixed methods evaluation of a STEM initiative in Trinidad and Tobago [Paper Presentation]. American Evaluation Association 2020 Annual Conference, Virtual.

Publications & Conferences (cont'd)

De Lisle, J. et al (2021, March). Assessment reform for system improvement in postcolonial states-necessary or ancillary? in J. De Lisle (Chair), The Caribbean experience of public examinations in a time of crisis [Symposium]. International Congress for School Effectiveness and Improvement Virtual Congress 2021.

Figaro-Henry, S. (2021, August 18-19). Creating an innovative, cognitively engaging, virtual learning environment [Paper Presentation]. Caribbean Visionary Educators Innovative Leadership: Building Education for the Future Symposia, Virtual.

Jaggernaut, S. J. (2020, December 17). Exploring changes in teacher efficacy of in-service secondary school teachers during a diploma in education programme in Trinidad and Tobago: A mixed method study. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

Jaggernaut, S. J., Kamalodeen, V., Ramsawak-Jodha, N., & Kalloo, R. (2020, December 17). Taking up the challenge: Secondary school teachers experiences of remote teaching during the Covid-19 pandemic in Trinidad and Tobago. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

Emrith, K., & **Jaggernaut, S.J.** (2021, July 5-6). Flipping the mathematics classroom to improve student engagement in learning and mathematic achievement: A mixed methods study in Trinidad and Tobago. 13th Annual International Conference on Education and New Learning Technologies, Virtual.

Kamalodeen, V. J. (2021, July 26). The imperative for computational thinking in secondary schools [Presentation]. Caribbean Association of Principals of Secondary Schools 28th Biennial Conference, Virtual.

Kamalodeen, V. J. (2021, March 25-26). Building a community of practitioners: The case of the teacher action research symposium transformational conference [Presentation]. School of Education, UWI Mona and Operation save Jamaica.

Kamalodeen, V. J., & Taylor, M. (2021, January 24-25). The struggle is real; From practioner to researcher [Presentation]. UNEqual World Online Conference; The Right to Education, Virtual.

Kamalodeen, V. J., and Mohammed, S. (2021, January 24-25). Assistive technologies: Bridging the digital divide for children with mild disability [Presentation]. UNEqual World Online Conference; The Right to Education. United Nations. NY, Virtual.

Cook, L.D., and **Kamalodeen, V.** (2020, December 17). Understanding Mixed Methods Case study Designs [Paper Presentation]. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

Jaggernaut, S., **Kamalodeen, V.,** Ramsawak-Jodha, N., Dedovets, Z. (2020, December 17). Using mixed methods in a gamification study on geometry [Paper Presentation]. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

De Lisle, J., **Kornberg, C.,** Sambucharan, M., & Mark, N. (2021, March). When trust in a public examinations agency erodes: CXC and the CAPE/CSEC 2020 debacle [Paper Presentation] in J. De Lisle (Chair), The Caribbean experience of public examinations in a time of crisis [Symposium]. International Congress for School Effectiveness and Improvement Virtual Congress 2021.

Lee-Piggott, R., Conrad-Popova, D., & Conrad, D. (2021, July 2-3). Doing social justice leadership in challenging circumstances: Principals' perspectives [Poster presentation]. British Educational Leadership Management and Administration Society Virtual Conference.

Lee-Piggott, R. (2021, Apr 25-May 2). Trends in education privatization in and of education in the Caribbean [Paper presentation]. Comparative and International Education Society Annual Conference, Virtual Conference.

Nazir, J. (2021, January). What is STEM and its variants? [Presentation]. In The UWI, School of Education, Why we need more STEM and STEAM education in Trinidad and Tobago, [Webinar]. The University of the West Indies, St. Augustine Campus, The School of Education Webinar Series. <https://www.youtube.com/watch?v=V-5uyNZYgdo>

Cavalcante, A., **Nazir, J.**, Oztok, M., & Scheffer, K. (2020, December). How COVID-19 has changed the face of science, mathematics, and technology education research (possibly forever) [Webinar]. Science, Math and Technology Centre, OISE, University of Toronto. <https://www.oise.utoronto.ca/smt/resources/paneldiscussions/>

Herbert, S., & **Nazir J.** (2020, October). Which girls in STEM and why? [Presentation]. In The UWI, School of Education, Which Boys and Girls are Failing and Why? [Webinar] The University of the West Indies, St. Augustine Campus, The School of Education Webinar Series. <https://www.youtube.com/watch?v=Q9VMphbX2RU>

Pierre-Robertson, P. (2021). Librarian and Lecturer a Partnership? From Then Till Now: 2005 – 2020 [Presentation]. 41st Annual ASDAL Conference, Virtual.

De Lisle, J., **Ramsawak-Jodha, N.**, Ramnarine, N., & Lucas, T. (2021, March). Do we even need a placement examination in a pandemic? The Trinidad and Tobago

11+ in a crisis. [Paper Presentation]. In J. De Lisle (Chair), The Caribbean experience of public examinations in a time of crisis [Symposium]. International Congress for School Effectiveness and Improvement Virtual Congress 2021.

Ramsawak-Jodha, N., Jaggernauth, S., & Kamalodeen, V.J. (2020, December 17). Taking up the challenge: Secondary teachers' experiences of remote teaching during the COVID-19 pandemic in Trinidad and Tobago [Paper Presentation]. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

Joong, Y., **Ramsawak-Jodha, N.**, Wintz, P., Gibbs, Anderson, S., & Hutton, D. (2020). Understanding the Ecologies of Education Reforms: Comparing the perceptions of secondary teachers and students in Jamaica, Guyana and Trinidad and Tobago [Paper Presentation]. Mixed Methods International Research Association - Caribbean Chapter, Online MMR Symposium: Connecting the mixed-methods research community virtually during the pandemic.

Skerrit, P. (2021). Inclusion in Caribbean Schools: Challenges and Opportunities [Presentation]. Caribbean Principal's Conference, Online Conference.

Refereed Conference Papers and Proceedings

Dallier, M. (2021). Enhancing the French Language Learning Experience with the WhatsApp application. In Proceedings of the fourth edition of the International Conference "MOOCs, language learning and mobility: design, integration, reuse ». Organized by the Universities of Grenoble Alpes (FR), Alicante (ES) and the Open University (UK) together with Federazione Nazionale Insegnanti Centro di iniziativa per l'Europa (IT). European Erasmus and project MOOC2MOVE hal-03216063 Retrieved from <http://hal.univ-grenoble-alpes.fr/M2M/>

Publications & Conferences (cont'd)

Dedovets, Z. (2021). Scaffolding as an interactive method in teaching mathematics. *Modern Education: Scientific Approaches, Experience, Problems, Prospects*, pp.23-30. Russia, Penza, V.G. Belinsky Penza State Pedagogical University Russia (PSPU).

Dedovets Z., & Rodionov, M. (2021, August 11-13). Developing an alternative thinking style in the context of a problem-based approach [Presentation]. 35th BARCELONA International Conference on Economics, Management, Humanities and Social Sciences, Barcelona, Spain.

Maharaj V. (2021) Ed. Publication of Papers from the Indian Diaspora Conference 2017. Routledge.

Other Publications, Formats, Exhibitions & Performances

Scripts

Chinien, S. (2021) L'empreinte à Chamoiseau (Documentary Treatment for a feature length film on the life and works of Martinican writer Patrick Chamoiseau). (Script-writing) for a feature length film (about 73 minutes)

Chinien, S. (2021) L'empreinte à Chamoiseau (Documentary Treatment for TV broadcast on the life and works of Martinican writer Patrick Chamoiseau). (Script-writing) for a TV documentary (about 43 minutes)

Videos

Ferreira, J. S. (2020-2021) with N. Hodge and M. Mora Foderingham. "Tout Bagay Patwa, Everything Patwa" – YouTube Patois language and culture teaching series launch (launched 22 December 2020, 3 episodes during 2020 and 2021 on @trinidadianpatois on Facebook)

Blogs

Ferreira, J. S. (15 June 2021) "Portugal, Pooiteegal, Patigal, Pretty Gyal?" <https://languageblog.wordpress.com/2021/06/15/portugal-pooiteegal-patigal-prettygyal/>

Ferreira, J. S. (21 June 2021 "A Transnational J'Ouvert Kòmès—Baré Yo!") <https://languageblog.wordpress.com/2021/06/21/a-transnational-jouvert-komes-bare-yo/>

Figuera, R. (2020) Native Speakerism: Discriminatory Practice or Response to Market Demands? Bridge Universe. <https://bridge.edu/tefl/blog/native-speakerism-discriminatory-practice-or-response-to-market-demands/>

Other Publications

Dennis, J. (2020) "Mastering Tertiary Writing Skills: A Metamorphosis." Literatures in English Student Association at The UWI, St. Augustine, <https://liesauwista.wixsite.com/mysite/post/mastering-tertiary-writing-skills-a-metamorphosis>

FACULTY OF LAW

Journal Publications

Koo, J. (2021) Saving Trinidad and Tobago Domestic Football – An Intellectual Property Based Proposal Part Two. *Sports Law and Taxation* 12(1):29.

Koo, J. (2020) Saving Trinidad and Tobago Domestic Football – An Intellectual Property Based Proposal Part One. *Sports Law and Taxation* 11(4):38.

Koo, J. (2020) A Justificatory Pluralist Toolbox: Constructing a Modern Approach to Justifying Copyright Law' *European Intellectual Property Review* 42(8):469.

E.G. Pereira; A. E. Koenck; C. Nwapi; I. Lacerda de Araujo. (2021) Carrot or Stick? Enforcing Compliance with Local Content Requirements in the International Oil and Gas Industry. *Oil and Gas Journal*, Nov.

A. Ovcharova, **Pereira, E. G.** (2021). Russian Arctic Region: would the leading role of Russian NOCs be sufficient for its sustainable development? *Oil and Gas Journal*.

A. Gallo, **E.G. Pereira,** A. Fossa, T. Muinzer, H. Hylton-Edwards, E. Moutinho dos Santos,

C. Dybwad, C. Liaw. (2021). Towards the International Standardization of Carbon Dioxide Capture, Transportation, Utilization and Storage (CCUS) Technologies: Current Challenges and Future Directions. *The Journal of Sustainable Development and Policy*.

Pereira, E. G., M. Pappa, T. Stephens, P. Eiamchamroonlarp, A. Elias-Roberts and A. Lopes. (2021). Stabilization Provisions: Do they Provide the Desired Protection? (Part 2). *Oil, Gas & Energy Quarterly* 70.

Pereira, E. G., M. Pappa, T. Stephens, P. Eiamchamroonlarp, A. Elias-Roberts and A. Lopes. (2021) Stabilization Provisions: Do they Offer the Desired Protection? (Part 1). *Oil, Gas & Energy Quarterly* 69, 693-722.

E.G. Pereira, E. Wifa, J. Moses. (2020) Regulating and Managing Hydrocarbon Resources: Lessons learnt from a Norwegian and British perspectives. *The Journal of Sustainable Development and Policy*.

Pereira, E. G., T. Taiwo, N. C. Ole. (2020). How to address residual liability and insolvency in disused oil and gas infrastructure left in place? The case of Brazil, Nigeria and Trinidad and Tobago. *The Journal of Sustainable Development and Policy*.

Pereira, E. G., C.-G. Stănescu, W. M. Zulhafiz, F. Rodrigues Caldas Feres, W. Almashri Otman, Y. A. Failat and A. Koenck. (2020). Host Granting Instruments Models: Why do they matter and for whom? *Oil and Gas, Natural Resources and Energy Journal* 6 (1).

Marcus, J.T., R. Williams (2021), Lex FIFA and Caribbean Football, *Organisation of Commonwealth Caribbean Bar Associations Journal* 2 (3):14

Marcus, J.T., R. Williams (2020), Trinidad and Tobago: Challenging the Decisions of Sports Governing Bodies, *Sports Law and Taxation*, 11 (4): 24

Books

Koo, J. (2021) Intellectual Property in Trinidad and Tobago. Wolters Kluwer

Pereira, E. G., R. Spencer, J. Moses. (2021). Sovereign Wealth Funds, Local Content Policies and CSR: Developments in the Extractive Sector, Springer.

J. Moses, **Pereira, E. G.**, R. Spencer. (2021). Conclusion in Eduardo G. Pereira, Rochelle Spencer, Jonathon Moses (eds.), Sovereign Wealth Funds, Local Content Policies and CSR: Developments in the Extractive Sector. Springer.

R. Spencer, **Pereira, E. G.** and F. Matambanadzo. (2021). Public Wealth Management in Australia. in Eduardo G. Pereira, Rochelle Spencer, Jonathon Moses (eds.), Sovereign Wealth Funds, Local Content Policies and CSR: Developments in the Extractive Sector. Springer.

J. Moses, Rochelle Spencer, **Pereira, E. G.**. (2021). Introduction in Eduardo G. Pereira, Rochelle Spencer, Jonathon Moses (eds.), Sovereign Wealth Funds, Local Content Policies and CSR: Developments in the Extractive Sector. Springer.

E.G. Pereira, A. Wawryk, C. Banet, H. Trischmann, K. Hall. (2020). Regulation of Decommissioning, Abandonment and Re-Use Initiatives in the Oil and Gas Industry: From Obligation to Opportunities. Kluwer International Law.

A. Wawryk, C. Banet, **Pereira, E. G.**. (2020). Regional Seas Conventions and Decommissioning Chapter in Eduardo G. Pereira, Alexandra Wawryk, Catherine Banet, Heike Trischmann, Keith Hall (eds.), Regulation of Decommissioning, Abandonment and Re-Use Initiatives in the Oil and Gas Industry: From Obligation to Opportunities. Kluwer International Law.

N. C. Ole, D. E. Omukoro, **Pereira, E. G.** and K. Hall. (2020) Residual Liability chapter in Eduardo G. Pereira, Alexandra Wawryk, Catherine Banet, Heike Trischmann, Keith

Publications & Conferences (cont'd)

Hall (eds.), Regulation of Decommissioning, Abandonment and Re-Use Initiatives in the Oil and Gas Industry: From Obligation to Opportunities. Kluwer International Law.

H. Trichsmann, A. Lule Sekiwano, **Pereira, E. G.** (2020) Decommissioning Provisions in Joint Operating Agreements and Unitisation and Unit Operating Agreements in Eduardo G. Pereira, Alexandra Wawryk, Catherine Banet, Heike Trischmann, Keith Hall (eds.), Regulation of Decommissioning, Abandonment and Re-Use Initiatives in the Oil and Gas Industry: From Obligation to Opportunities. Kluwer International Law.

G. Roque, F. Delgado, P. Neves, **Pereira, E. G.** (2020). Brazilian chapter in Eduardo G. Pereira, Alexandra Wawryk, Catherine Banet, Heike Trischmann, Keith Hall (eds.), Regulation of Decommissioning, Abandonment and Re-Use Initiatives in the Oil and Gas Industry: From Obligation to Opportunities. Kluwer International Law.

Pereira, E. G., D. S. Olawuyi (2020). Practical Considerations to Negotiate an Enforceable Joint Operating Agreement Under Civil Law Jurisdictions. Kluwer International Law, 2nd edn.

Pereira, E. G., D. S. Olawuyi (2020). Conclusion in Eduardo G. Pereira, Damilola S. Olawuyi (eds.), Practical Considerations to Negotiate an Enforceable Joint Operating Agreement Under Civil Law Jurisdictions. Kluwer International Law, 2nd edn.

Pereira, E. G., D. S. Olawuyi (2020). Introduction in Eduardo G. Pereira, Damilola S. Olawuyi (eds.), Practical Considerations to Negotiate an Enforceable Joint Operating Agreement Under Civil Law Jurisdictions Kluwer International Law, 2nd edn.

Book Chapters

Charles, E. (2021). The Art of Negotiation for Small States. *Environment Law and International Dispute Resolution*. Ed. Professor Catherine Iorns and Professor Petra Butler. Springer

Charles, E. (2021). The United Nations Convention on the Law of the Sea, Part XI Regime And the International Seabed Authority: A Twenty-Five Year Journey. *The Enterprise under the UN Convention on the Law of the Sea and the Common Heritage of Mankind*. [BRILL.NV](https://www.brill-nv.com/). The Netherlands.

Koo, J. (2021) The EU Right of Communication to the Public – Still Looking for a Good Link in *Handbook of European Copyright Law*. Ed Eleonora Rosati. Routledge 9780367436964

E.G. Pereira, R. Baleroni, F. Delgado, J. V. Ducan de Miranda, P. Neves, A. Koenck. (2021). *Local Content and Sustainable Development in Brazil* in D Olawuyi (ed), *Local Content, Sustainable Development and Treaty Implementation in Global Energy Markets*. Cambridge University Press.

Conference Presentations

Koo, J. 'Protecting Works of Mas – Contemplating the Copyright Protection of Carnival Costumes' Works-in-Progress Intellectual Property Colloquium (Online) 20 February 2021

J.T. Marcus, S. Jadoonanan, G. Gilbert, R. Williams, F.H. Masaisai (2021), Sports Governing Bodies and Judicial Review: Has Trinidad and Tobago gone against Caribbean and global trends? A paper submitted by the Trinidad and Tobago Association for Sport and Law, *Faculty of Law, Mona, 7th Annual Symposium on Law, Governance and Society, Celebrating and Surviving- UWI Law 50 and beyond, June 25-27, 2021*

J.T. Marcus (2021), Sports Law: Lex Olympica- Leveling the Playing Field, panel discussion chairperson, *Faculty of Law, Mona, 7th Annual Symposium on Law, Governance and Society, Celebrating and Surviving- UWI Law 50 and beyond, June 25-27, 2021*

FACULTY OF MEDICAL SCIENCES

Journal Publications

SCHOOL OF MEDICINE

Department of Pre-Clinical Sciences

J.T. Marcus (2021), Sports Law conference: Evolve-New Frontiers for Regional and International Sports Law, conference co-moderator with A. Mansingh, J. Koo and J. Haynes, September 10, 2021.

Technical Reports & Professional Papers

Koo, J. (2020). Providing an assessment of the legal and regulatory frameworks related to collective management across the Caribbean region. *WIPO* [confidential]

Koo, J. and Koenck, A. (2020). *How Are You Transferring Your Interest? Farm Out Agreements vs. Upstream Sale & Purchase Agreements*. The Energy Learning.

Koo, J. and Terskikh, A. (2020). *Host Granting Instruments: Does it matter?* The Energy Learning.

Koo, J., Delgado, F., and Jagnanan, M. (2020). *Guyana must embrace transparency to realise wealth" Petroleum Economist*. The Energy Learning.

Pereira, E. G., A. Koenck (2020). *How Are You Transferring Your Interest? Farm Out Agreements vs. Upstream Sale & Purchase Agreements*. The Energy Learning.

Pereira, E. G., A. Terskikh. (2020). *Host Granting Instruments: Does it matter?* The Energy Learning.

Other Publications

Marcus, J.T., R. Williams (2020), FIFA: fair play or fear Play? Spotlight on TTFA and FIFA, trinidadexpress.com, September 5, 2020

Marcus, J.T., R. Williams (2020), Play to the whistle, Spotlight on TTFA v FIFA-Part 2, trinidadexpress.com, September 12, 2020

Nayak B., S and Sahu P.K. Socio-demographic and educational factors associated with Depression, Anxiety and Stress among Health Professions students. *Psychology, Health & Medicine*, 9, 1 -6, 2021.doi: 10.1080/13548506.2021.18967

Badal, K., Ali, R., Warner, W.A., maniam, A., Carrington, A., **Foster, J.E.** and R. Haraksingh. **Factors associated with breast cancer recurrence and survival at Sangre Grande Hospital, Trinidad**. *Cancer Causes & Control*. 2021 Jul;32(7):763-772. doi: 10.1007/s10552-021-01427-z. Epub 2021 Apr 9.

Keating, S.M., Mizrahi, R.A., Adams, M.S., Asensio, M.A., Benzie, E., Carter, K.P., Chiang, Y., Edgar, R.C., Gautam, B.K., Gras, A., Leong, J., Leong, R., Lim, Y.W., Manickam, V.A., Medina-Cucurella, A.V., Niedecken, A.R., Saini, J., Simons, J.F., Spindler, M.J., Stadtmiller, K., Tinsley, B., Wagner, E.K., Wayham, N., Tracy, L., Lundberg, C.V., Büscher, D., Terencio, J.V., Roalfe, L., Pearce, E., Richardson, H., Goldblatt, D., **Ramjag, A.T., Carrington, C.V.F.**, Simmons, G., Muench, M.O., Chamow, S.M., Monroe, B., Olson, C., Oguin, T.H., Lynch, H., Jeanfreau, R., Meyer, E.H., Adler, A.S., Johnson, D.S. Generation of recombinant hyperimmune globulins from diverse B-cell repertoires. *Nature Biotechnology* (2021) <https://doi.org/10.1038/s41587-021-00894-8>.

Sameroff, S., Tokarz, R., Jain, K., Oleynik, A., **Carrington, C.V.F.**, Lipkin, W.I., **Oura, C.A.L.** Novel Quarantavirus and other viral sequences Identified from Ticks Parasitizing Hunted Wildlife in Trinidad and Tobago. *Ticks and Tick-borne Diseases* (2021), 12 (4): 101730. doi: <https://doi.org/10.1016/j.ttbdis.2021.101730>

Publications & Conferences (cont'd)

O'Toole, Á., Hill, V., Pybus, O.G., Watts, A., Bogoch, I.I., Khan, K., Messina, J.P., The COVID-19 Genomics UK (COG-UK) consortium, Network for Genomic Surveillance in South Africa (NGS-SA), Brazil-UK CADDE Genomic Network, Tegally, H., Lessells, R.R., Giandhari, J., Pillay, S., Tumed, K.A., Nyepetsi, G., Kebabonye, M., Matsheka, M., Mine, M., Tokajian, S., Hassan, H., Salloum, T., Merhi, G., Koweyea, J., Geoghegan, J.L., de Ligt, J., Ren, X., Storey, M., Freed, N.E., Pattabiraman, C., Prasad, P., Desai, A.S., Vasanthapuram, R., Schulz, T.F., Steinbruck, L., Stadler, Y., Swiss Viollier Sequencing Consortium, Parisi, A., Bianco, A., Garcia de Viedma, D., Buenestado-Serrano, S., Borges, V., Isidro, J., Duarte, S., Gomes, J.P., Zuckerman, N.S., Mandelboim, M., Mor, O., Seemann, T., Arnott, A., Draper, J., Gall, M., Rawlinson, W., Deveson, I., Schlebusch, S., McMahon, J., Leong, L., Kok Lim, C., Chironna, M., Loconsole, D., Bal, A., Josset, L., Holmes, E., St. George, K., Lasek-Nesselquist, E., Sikkema, R.S., Munnink, B.O., Koopmans, M., Brytting, M., Sudharani, V., Pavani, S., Smura, T., Hein, A., Kurkel, S., Umair, M., Salman, M., Bartolini, B., Rueca, M., Drosten, C., Wolff, T., Silander, O., Eggink, D., Reusken, C., Vennema, H., Park, A., **Carrington, C., Sahadeo, N.**, Carr, M., Gonzalez, G., SEARCH Alliance San Diego, National Virus Reference Laboratory, SeqCOVID-Spain, Danish Covid-19 Genome Consortium (DCGC), Communicable Diseases Genomic Network (CDGN), Dutch National SARS-CoV-2 surveillance program, Division of Emerging Infectious Diseases (KDCA), de Oliveira, T., Faria, N., Rambaut, A., Kraemer, M.U.G. Tracking the international spread of SARS-CoV-2 lineages B.1.1.7 and B.1.351/501Y-V2 [version 1; peer review: 3 approved]. *Wellcome Open Res* 2021, **6**:121 (<https://doi.org/10.12688/wellcomeopenres.16661.1>)

Auguste, A.J., Langsjoen, R.M., Porier, D.L., Erasmus, J.H., Bergren, N.A., Bolling, B.G., Luo, H., Singh, A., Guzman, H., Popov, V.L., Travassos da Rosa, A.P.A., Wang, T., Kang, L., Allen, I.C., **Carrington, C.V.F.**, Tesh, R.B., Weaver, S.C. Isolation of a novel insect-specific flavivirus with immunomodulatory effects in vertebrate systems *Virology* 2021 Jul 8;562:50-62. doi:10.1016/j.virol.2021.07.004. Online ahead of print. PMID: 34256244.

Bissessar, S., Youssef, F.F. A cross-sectional study of neuromyths among teachers in a Caribbean nation. *Trends in Neuroscience Education* 2021 Jun;23:100155. doi: 10.1016/j.tine.2021.100155. Epub 2021 Apr 17. PMID: 34006362

Department of Para-Clinical Sciences

Clement Y, Ming Hon AM, Mitcham A, Mohammed A, Mohammed A, Mohammed I, Mohammed R, Mohammed S, Mohammed S (2021). Factors affecting marijuana use among cancer patients attending at an oncology specialty centre in Trinidad. *West Indian Medical Journal* 69 (Suppl 2): 33.

La Foucade A, **Davis GK**, Baboolal N, Bethelmie D, Laptiste C, Ali-Sisbane H, et al. (2020) The socio-economic determinants of multimorbidity among the elderly population in Trinidad and Tobago. *PLoS ONE* 15(9): e0237307. <https://doi.org/10.1371/journal.pone.0237307>

Lyons N, Samaroo Francis W, **Edwards J**, Lavia O. Telehealth combined with Differentiated ART Delivery Improves ART Pick Up during COVID 19 at a Large HIV Treatment Facility in Trinidad and Tobago. *World Journal of AIDS* 2021;11: 50-59. doi: 10.4236/wja.2021.112005.

Edwards RJ, Lyons N, Samaroo-Francis W, Lavia LO, John I, Todd S, Edwards J, Boyce G. The Expansion of a Patient Tracer Programme to identify and return patients loss to follow up at a large HIV Clinic in Trinidad. *AIDS Res Ther.* 2021 Apr 23;18(1):20. doi: 10.1186/s12981-021-00341-3.

Motilal S, Paul-Charles J, Asnani M, **Khan R**, Ricketts-Roomes T, Pinder-Butler S, Herbert J, Farquharson C, Conliffe C, Standard-Goldson A, Smith K, Morris E, Maharaj RG. 2020 family medicine postgraduate examinations at The University of the West Indies: successes and challenges in the time of COVID-19 pandemic. *Postgrad Med J.* 2021 May 26: postgradmedj-2021-140242. doi:10.1136/postgradmedj-2021-140242. Epub ahead of print. PMID: 34039692.

Motilal S, Paul-Charles J, Asnani M, Khan R, Ricketts-Roomes T, Pinder-Butler S, Herbert J, Farquharson C, Conliffe C, Standard-Goldson A, Smith K, Morris E, Maharaj R. 2020 family medicine postgraduate examinations at The University of the West Indies: successes and challenges in the time of COVID-19 pandemic. *Postgraduate Medical Journal* Published Online First: 26 May 2021. doi: 10.1136/postgradmedj-2021-140242

Jankie S, Johnson J, Adebayo AS, Pillai GK, **Pinto Pereira LM**. Efficacy of Levofloxacin Loaded Nonionic Surfactant Vesicles (Niosomes) in a Model of *Pseudomonas aeruginosa* Infected Sprague Dawley Rats. *Adv Pharmacol Pharm Sci*. 2020 Oct 27;2020:8815969. doi: 10.1155/2020/8815969. PMID: 33179011; PMCID: PMC7609151.

Jankie S, Pooransingh S, Villaroel Stuart A, **Pinto Pereira LM**. SARS-Cov-2 and drug shortages- Trends and lessons from a Caribbean perspective. *Caribbean Medical Journal* 2020 Nov; DOI: 10.48107/CMJ.2020.11.002

Mohammed SR, **Pinto Pereira LM**, Hanoman H, Teelucksingh S. Chronic asymptomatic hyponatraemia following angiotensin receptor blocker-neprilysin inhibitor (ARNi) therapy: a case report. *Postgraduate Medical Journal* Published Online First: 11 December 2020. doi: 10.1136/postgradmedj-2020-139284

Jankie S, **Pinto Pereira LM**. Targeting insulin resistance with selected antidiabetic agents prevents menopausal associated central obesity, dysglycemia, and cardiometabolic risk. *Post Reproductive Health*. December 2020. doi:10.1177/2053369120982753

Jankie, S., Villaroel Stuart, A., Mohammed, S., Sewdass, K., **Pinto Pereira, L.** Covid-19 causes price increases and reduced stocks of drugs in Trinidad, West Indies. *Academia Letters*, 2021 Article 3582. <https://doi.org/10.20935/AL3582>

Umakanthan, S., Rao, A.V.C., Mohammed, W. (2021) Role of immunohistochemistry markers in neoplastic lung lesions. *Journal of Cancer Research and Therapeutics* 187:19 doi:10.4103/jcrt.JCRT_187_19.

Umakanthan, S., Senthil, S., John, S., Madhavan, M. K., Das, J., Patil, S., Rameshwaram, R., Cintham, A., Subramaniam, V., Yogi, M., Bansal, A., Achutham, S., Shekar, C., Murthy, V., & Selvaraj, R. (2021). The protective role of statins in COVID-19 patients: a retrospective observational study. *BMC Translational medicine communications*, 6(1), 22. <https://doi.org/10.1186/s41231-021-00102-4>.

Umakanthan, S., Patil, S., Subramaniam, N., & Sharma, R. (2021). COVID-19 Vaccine Hesitancy and Resistance in India Explored through a Population-Based Longitudinal Survey. *Vaccines*, 9(10), 1064. <https://doi.org/10.3390/vaccines9101064>

Francis, A. I., Ghany, S., Gilkes, T., & **Umakanthan, S.** (2021). Review of COVID-19 vaccine subtypes, efficacy and geographical distributions. *BMJ Postgraduate medical journal*, postgradmedj-2021-140654. Advance online publication. <https://doi.org/10.1136/postgradmedj-2021-140654>

Umakanthan, S., & Bukelo, M. M. (2021). Concise genetic profile of lung carcinoma. *BMJ Postgraduate medical journal*, postgradmedj-2021-139860. Advance online publication. <https://doi.org/10.1136/postgradmedj-2021-139860>

Umakanthan, S., & Bukelo, M. M. (2021). Molecular Genetics in Epstein-Barr Virus-Associated Malignancies. *Life* (Basel, Switzerland), 11(7), 593. <https://doi.org/10.3390/life11070593>

Calderon, C., Ramsingh, A., Patton, R., Umakanthan, S., & Ramnarine, D. (2021). Multiple intracranial juvenile xanthogranuloma not a straightforward diagnosis (a case report). *International journal of surgery case reports*, 85, 106265. Advance online publication. <https://doi.org/10.1016/j.ijscr.2021.106265>

Umakanthan, S., Chattu, V. K., Ranade, A. V., Das, D., Basavarajegowda, A., & Bukelo, M. (2021). A rapid review of recent advances in diagnosis, treatment and vaccination for COVID-19. *AIMS public health*, 8(1), 137–153. <https://doi.org/10.3934/publichealth.2021011>

Publications & Conferences (cont'd)

Sahu, P. K., Nayak, B. S., Rodrigues, V., & **Umakanthan, S.** (2020). Prevalence of Psychological Distress among Undergraduate Medical Students: A Cross-Sectional Study. *International journal of applied & basic medical research*, 10(4), 270–275. https://doi.org/10.4103/ijabmr.IJABMR_100_19

Umakanthan, S., Sahu, P., Ranade, A. V., Bukelo, M. M., Rao, J. S., Abrahao-Machado, L. F., Dahal, S., Kumar, H., & Kv, D. (2020). Origin, transmission, diagnosis and management of coronavirus disease 2019 (COVID-19). *Postgraduate medical journal*, 96(1142), 753–758. <https://doi.org/10.1136/postgrad-medj-2020-138234>

Milne, D. M., Sookar, N., **Umakanthan, S.**, Rampersad, F., Olivier, L., & Ali, J. (2020). Primary Osteosarcoma of the Breast in a Patient Treated Previously for Invasive Ductal Carcinoma: An Unusual Presentation of a Very Rare Primary Breast Malignancy. *Case reports in surgery*, 2020, 1594127. <https://doi.org/10.1155/2020/1594127>

Suepaul S, Georges K, **Unakal C. G.**, Boyen F, Sookhoo J, Ashraph K, et al. (2021) Determination of the frequency, species distribution and antimicrobial resistance of staphylococci isolated from dogs and their owners in Trinidad. *PLoS ONE* 2021; 16(7): e0254048. <https://doi.org/10.1371/journal.pone.0254048> Citation: 01

Gaur U., Majumder MAA, Sa B., Sarkar S., **Williams A.**, Singh K. Challenges and Opportunities of Preclinical Medical Education: COVID-19 Crisis and Beyond. September 17, 2020. *SN Comprehensive Clinical Medicine*. DOI: <https://doi.org/10.1007/s42399-020-00528-1>

Department of Clinical Medical Sciences

Sanchez S, Teelucksingh S, **Ali R.**, Bailey H, Legall G. *Quality of Life and Health Status Among Patients Receiving Renal Replacement Therapy in Trinidad and Tobago, West Indies*. *Int J Nephrol Renovasc Dis*. 2021 Jun 8;14:173-192. Journal Impact Score: 0.84. Citations: 0.

Ali N, Baggan K, Khan SS, Maharaj P, **Ali RG.** *Missed myocardial infarction in a vicenarian with malignant anomalous right coronary artery causing acute coronary syndrome: a case report*. *J Med Case Rep*. 2021 Mar 27;15(1):166. Journal Impact Score 0.287. Citations: 0.

Rampersad F, Narine S, Rampersad D, Diljohn J, **Ali R.** *Uterine arteriovenous malformation mimicking retained products of conception - treated with embolization*. *Radiol Case Rep*. 2020 Sep 2;15(11):2076-2079. Journal Impact Score: 0.65. Citations: 1.

Seecheran N, Jagdeo C, Seecheran R, Seecheran V, Persad S, Peram L, Evans M, Edwards J, Thackoorcharan S, Davis B, Davis S, Dawkins B, Dayaram A, De Freitas M, Deonarinesingh T, Dhanai J, Didier C, Motilal S and **Baboolal N.** Screening for depressive symptoms in cardiovascular patients at a tertiary centre in Trinidad and Tobago: investigation of correlates in the SAD CAT study. *BMC Psychiatry* 20, 498 (2020). <https://doi.org/10.1186/s12888-020-02909-1>

La Foucade A, Davis G, **Baboolal N.**, et al. The socio-economic determinants of multimorbidity among the elderly population in Trinidad and Tobago. *PLoS One*. 2020;15(9):e0237307. Published 2020 Sep 11. doi:10.1371/journal.pone.0237307

Tang B, **Bodkyn C.**, Gupta S, Denburg A. Access to WHO essential medicines for childhood cancer care in Trinidad and Tobago: A health system analysis of barriers and enablers. *Journal of Global Oncology*. 2020;6:67-79.

Manca, R., **Khan, K.**, Mitolo, M., De Marco, M., Greveson, L., Varley, R., Wilkinson, I., Venneri, V. Modulatory effects of cognitive exertion on regional functional connectivity of the salience network in women with ME/CFS: A pilot study. *Journal of the Neurological Sciences* 2021 Mar 15;422:117326. doi:10.1016/j.jns.2021.117326. Epub 2021 Jan 22. (Impact Factor = 3.115, Citations = 0)

Majumder, M., Cohall, D., Ojeh, N., Campbell, M., Adams, O., Sa, B., **Khan, K.**, Pierre, R., & Trotman-Edwards, H. Assessing online learning readiness and perceived stress among first year medical students during COVID-19 pandemic: a multi-country study. *Canadian Medical Education Journal*. 2021 Apr 30;12(2):e131-e133. doi: 10.36834/cmej.71609. (Impact Factor = NIFA, Citation = 1)

Bahall, M., Legall, G., **Khan, K.** Quality of life among patients with cardiac disease: the impact of comorbid depression. *BMC Health and Quality of Life Outcomes* 2020;18(189) <https://doi.org/10.1186/s12955-020-01433-w> (Impact Factor = 2.599, Citations = 3)

Gosein M, Mohammed L, Chan A, Sinanan A, Banfield R, **Maharaj P**, Narinesingh D. A pictorial review of the less commonly encountered patterns of metastatic prostate carcinoma. (2020) *Ecancer*, 14 1159 <https://doi.org/10.3332/ecancer.2020.1159>

Rampersad FS, Verma S, Diljohn J, Persad V, Persad P. Uterine Lipoleiomyoma Presenting With Pelvic Pain in a Post-Menopausal Woman. *Cureus*. 2021 May 10;13(5):e14929. doi: 10.7759/cureus.14929. PMID: 34123628; PMCID: PMC8189540. (Citations:0 ; Impact Factor:1.15)

Rampersad F, Diljohn J, Teelucksingh S, Greaves W, Dan D. Retroperitoneal liposarcoma mimicking pheochromocytoma. *Radiology Case Reports*. 2021 Jun 1;16(6):1493-8. (Citations:0; Impact Factor: 0.73)

Persaud SA, **Rampersad FS**, Rattan R, Hosein I. Spontaneous Massive Intrarenal Hemorrhage in a Patient With De Novo Ureteropelvic Junction Obstruction. *Cureus*. 2021 May 8;13(5):e14904. Doi: 10.7759/cureus.14904. PMID: 34113514; PMCID: PMC8184101. (Citations:0 ; Impact Factor:1.15)

Daniel NE, **Rampersad FS**, Naraynsingh V, Barrow S, David S. Jejunal Intussusception Due to Heterotopic Pancreas: A Case Report. *Cureus*. 2021 Apr 20;13(4):e14586. doi: 10.7759/Cureus.14586. PMID: 34036004; PMCID: PMC8136362. (Citations:0 ; Impact Factor:1.15)

Reyes AJ, Ramcharan K, Giddings SL, Ramesar A, Arias ER, **Rampersad F**. Movement Disorders and Dementia in a Woman With Chronic Aluminium Toxicity: Video-MRI Imaging. Tremor and Other Hyperkinet Mov(NY). 2021 Feb 1;11:5. doi:10.5334/tohm.588. PMID: 33598364; PMCID: PMC7863844 (Citations:0 ; Impact Factor: N/A)

Seecheran RV, Dookie T, Seecheran VK, Persad SA, Marsang BL, **Rampersad F**, Maharaj P, Seecheran NA. Partial Anomalous Pulmonary Venous Connection: A Great Imitator. *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8:2324709620933425. doi: 10.1177/2324709620933425. PMID: 32525425; PMCID: PMC7290260. (Citations:0 ; Impact Factor: 0.84)

Teelucksingh S, Welch T, Chan A, Diljohn J, **Rampersad FS**. Gallbladder Adenomyomatosis Presenting With Abdominal Pain. *Cureus*. 2020 Sep;12(9):e10485. Doi:10.7759/cureus.10485. PMID: 33083185; PMCID: PMC7576300 (Citations:1; Impact Factor: 1.15)

Rampersad F, Narine S, Rampersad D, Diljohn J, Ali R. Uterine arteriovenous malformation mimicking retained products of conception – treated with embolization. *Radiology Case Reports*. 2020 Nov 1;15(11):2076-9. <https://doi.org/10.1016/j.radcr.2020.08.048> (Citations:1; Impact Factor:0.73)

Rampersad, F, Persaud, S., Chan, A., Diljohn, J., Maharaj, P., & Ramsundar, A. (2020). A Turn for the Better – The Benefit of Doing A Limited Prone Rescan to Confirm the Exact Location of an Equivocal Vesicoureteric Junction Calculus Detected on Supine Abdominopelvic CT Scan. *European Journal of Medical and Health Sciences*, 2(3). <https://doi.org/10.24018/ejmed.2020.2.3.249> (Citations: 0 ; Impact Factor: 3.46)

Publications & Conferences (cont'd)

Seecheran RV, Seecheran VK, Persad SA, **Rampersad F**, Maharaj P, Khan S, Seecheran NA. The Quandary of the Quadricuspid Aortic Valve-The "Unlucky" 4-Leaf Clover: Case Report and Brief Clinical Review. *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8: 2324709620921626. doi: 10.1177/2324709620921626. PMID: 32389028; PMCID: PMC7370807. (Citations: 2; Impact Factor:0.84)

Sakhamuri S, Goli S, Teelucksingh S. Case Report: Flavored Vaping-Associated Hypokalemia. *American Family Physician* 2020; 102(2): 74-76. (Impact Factor 1.97; Citations 0; Case report)

Sakhamuri S, Teelucksingh S, BaHammam AS. Is it time to redefine obstructive sleep apnoea? *Respirology*. 2020;10.1111/resp.13880. doi:10.1111/resp.13880. (Impact Factor 4.756; Citations 0; Commentary)

Sakhamuri S, Rampersad C, Ramsingh C, Ivey MA, Pereira LMP. Risk factors for poor asthma control and impaired quality of life in a Caribbean population. *J Asthma*. 2020;1-9. doi:10.1080/02770903.2020.1778026. (Impact Factor 1.802; Citations 0; Research article)

Rambaran K, **Sakhamuri S**, Boppana LKT, Teelucksingh S. The development of COPD **through the Hindu practice of havan**. *Int J Tuberc Lung Dis*. 2020;24(4):463-464. (Impact Factor 2.00; Citations 0; Correspondence)

Pooransingh S, **Sakhamuri S**. Need for BCG Vaccination to Prevent TB in High-Incidence Countries and Populations. *Emerg Infect Dis*. 2020;26(3):10.3201/ eid2603.191232. (Impact Factor 7.42; Citations 0; Research letter)

Sakhamuri S, Seemungal T. **COPD**: Gaps in the GOLD Recommendations and Related Imperative Research Needs. *COPD*. 2020;1-3. (Impact Factor 2.57; Citations 0; Commentary)

Kawall T, Seecheran R, Seecheran V, Persad S, **Seecheran NA**. Suspected Ticagrelor-Induced Bullous Fixed Drug Eruption. *Cureus*. 2021 Mar 15;13(3):e13890. doi:10.7759/cureus.13890. PMID: 33880246; PMCID: PMC8045002. (Impact factor 0; Scimago N/A; Citations 0)

Seecheran N, Ramdeen A, Debideen N, Ali K, Grimaldos K, Grimaldos G, Karan A, Seecheran R, Seecheran V, Persad S, Abdullah H, Peram L, Giddings S, Motilal S, Tello-Montoliu A, Schneider D. The Effect of Empagliflozin on Platelet Function Profiles in Patients with Stable Coronary Artery Disease in Trinidad: The EFFECT Pilot Study. *Cardiol Ther*. 2020 Dec 11. doi: 10.1007/s40119-020-00208-0. Epub ahead of print. PMID: 33306161. (Impact factor 0; Scimago N/A; Citations 1)

Seecheran R, Kawall T, Seecheran V, Persad S, Kanhai J, Jagdeo CL, Giddings S, Raza S, **Seecheran NA**. Chronic Total Occlusion of the Left Main Coronary Artery in an HIV-Infected Patient. *Int Med Case Rep J*. 2020 Nov 12;13:623-629. doi: 10.2147/IMCRJ.S279824. PMID: 33209063; PMCID: PMC7669524. (Impact factor 0; Scimago Q4; Citations 0)

Seecheran N, Jagdeo CL, Seecheran R, Seecheran V, Persad S, Peram L, Evans M, Edwards J, Thackoorcharan S, Davis B, Davis S, Dawkins B, Dayaram A, De Freitas M, Deonarinesingh T, Dhanai J, Didier C, Motilal S, Baboolal N. Screening for depressive symptoms in cardiovascular patients at a tertiary centre in Trinidad and Tobago: investigation of correlates in the SAD CAT study. *BMC Psychiatry*. 2020 Oct 8;20(1):498. doi: 10.1186/s12888-020-02909-1. PMID: 33032571; PMCID: PMC7545556. (Impact factor 2.704; Scimago Q1; Citations 0)

Kawall T, Seecheran RV, Seecheran VK, Persad SA, Jagdeo CL, **Seecheran NA**. "Shot to the Heart": Case Report and Concise Review of Cardiac Gunshot Injury. *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8:2324709620951652. doi: 10.1177/2324709620951652. PMID: 32815420; PMCID: PMC7444102. (Impact factor 0; Scimago Q3; Citations 2)

Seecheran N, Boodhai B, Maharaj A, Ramdeen A, Debideen N, Ochalal V, Singh R, Seecheran R, Seecheran V, Persad S, Abdullah H, Peram L, Motilal S, Tello-Montoliu A, Schneider D. The Effect of Low-Dose Ticagrelor on Platelet Function Profiles in Patients With Stable Coronary Artery Disease in Trinidad: The TWIST Pilot Study. *Cardiol Ther*. 2020 Aug 6. doi: 10.1007/s40119-020-00195-2. Epub ahead of print. PMID: 32766961. (Impact factor 0; Scimago N/A; Citations 1)

Seecheran RV, Dookie T, Seecheran VK, Persad SA, Marsang BL, Rampersad F, Maharaj P, **Seecheran NA**. Partial Anomalous Pulmonary Venous Connection: A Great Imitator? *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8:2324709620933425. doi: 10.1177/2324709620933425. PMID: 32525425; PMCID: PMC7290260. (Impact factor 0; Scimago Q3; Citations 0)

Seecheran RV, Seecheran VK, Persad SA, Rampersad F, Maharaj P, Khan S, **Seecheran NA**. The Quandary of the Quadricuspid Aortic Valve-The "Unlucky" 4-Leaf Clover: Case Report and Brief Clinical Review. *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8:2324709620921626. doi:10.1177/2324709620921626. PMID: 32389028. (Impact factor 0; Scimago Q3; Citations 2)

Seecheran R, Narayansingh R, Giddings S, Rampaul M, Furlonge K, Abdool K, Bhagwandass N, **Seecheran NA**. Atrial Arrhythmias in a Patient Presenting With Coronavirus Disease-2019 (COVID-19) Infection. *J Investig Med High Impact Case Rep*. 2020 Jan-Dec;8:2324709620925571. doi: 10.1177/2324709620925571. PMID: 32370558; PMCID: PMC7218462. (Impact factor 0; Scimago Q3; Citations 26)

Mohammed SA, Mohammed SR, **Teelucksingh S**. Vitamin B12 Deficiency: In the Palm of One's [Hands.Am J Med](#). 2021 Jul 21:S0002-9343(21)00435-6.

Sanchez S, **Teelucksingh S**, Ali R, Bailey H, Legall G. [Quality of Life and Health Status Among Patients Receiving Renal Replacement Therapy in Trinidad and Tobago, West Indies](#). *Int J Nephrol Renovasc Dis*. 2021 Jun 8;14:173-192.

Rampersad F, Diljohn J, **Teelucksingh S**, Greaves W, Dan D. [Retroperitoneal liposarcoma mimicking pheochromocytoma](#). *Radiol Case Rep*. 2021 Apr 15;16(6):1493-1498.

[Ali K, Karan A, Biswah S, Teelucksingh S, Mohammed NB. Posterior Reversible Encephalopathy Syndrome: Tips for Diagnosis and Treatment](#). *Cureus*. 2021 Mar 24;13(3):e14087.

Lutchmansingh K, Venkatesh YS, Boppana LKT, Seemungal T, Rao A, Sandy S, **Teelucksingh S**. The Slipping Slipper Sign: A Poor Man's Test for Severe Diabetic Peripheral Neuropathy.- *J Neuromuscul Dis*. 2020;7(2):175-181.

Mohammed SR, Pinto Pereira LM, Hanoman H, **Teelucksingh S**. [Chronic asymptomatic hyponatraemia following angiotensin receptor blocker-neprilysin inhibitor \(ARNi\) therapy: a case report](#). *Postgrad Med J*. 2020 Dec 11:postgradmedj-2020-139284.

Karan A, Ali K, Rambaran K, Del Corral P, Sakhamuri S, **Teelucksingh S**. [COVID-19 and ethnicity: Does reduced responsiveness to glucocorticoids explain the more aggressive nature of disease among minorities?](#) *Med Hypotheses*. 2020 Nov;144:110220.

Teelucksingh S, Schueler S, Crowley TP, Ragbir M. A novel problem, a tested solution: A case of an infected left ventricular titanium plug. *J Card Surg*. 2020 Nov;35(11):3179-3182.

Kerber E, Bukowska S, Mancol F, Kosowski B, Lee SR, **Teelucksingh S**, Del Corral P. [Increased vasoconstrictor sensitivity to glucocorticoids is associated with the exaggerated systolic blood pressure during sub-maximal exercise in young healthy adults](#). *Eur J Prev Cardiol*. 2020 Oct 13:zwaa055.

Publications & Conferences (cont'd)

Karan A, Ali K, **Teelucksingh S**, Sakhamuri S. [The impact of air pollution on the incidence and mortality of COVID-19](#). Glob Health Res Policy. 2020 Sep 1;5:39.

Teelucksingh S, Deonarine V, Islam S, O'Cawich S, Harmanan D, Naraynsingh V. [Necrotizing Fasciitis: Myalgia Is Diagnostic? A Case Series and Literature Review](#). Int J Low Extrem Wounds. 2020 Sep 17:1534734620958605.

Teelucksingh S, Welch T, Chan A, Diljohn J, Rampersad FS. Gallbladder Adenomyomatosis Presenting With Abdominal Pain. Cureus. 2020 Sep 16;12(9):e10485. doi: 10.7759/cureus.10485.

Sakhamuri S, **Teelucksingh S**, BaHamam AS. [Is it time to redefine obstructive sleep apnoea?](#) Respirology. 2020 Aug;25(8):802-803.

Department of Clinical Surgical Sciences

Abraham E, **Quan Soon CH**, Murphy A, Toby D. Talectomy by Medial Surgical Approach for Congenital Vertical Talus in Arthrogryposis Multiplex Congenita. Orthopedics. 2020 Nov 1;43(6):e623-e626. doi: 10.3928/01477447-20200812-01. Epub 2020 Aug 20. PMID: 32818283.

Persaud S A, Rampersad F S, Rattan R, et al. (May 08, 2021) Spontaneous Massive Intrarenal Hemorrhage in a Patient With De Novo Ureteropelvic Junction Obstruction. Cureus 13(5): e14904. DOI 10.7759/cureus.14904

Persaud S, Naraynsingh V. Response to: Importance of time in management of fracture penis: A prospective study. Urol Ann. 2020; 12: 298-9.

Persaud S, Sukhraj R, Goetz L. Knowledge, Attitude and Practices Towards Antibiotic Use Among Patients at a Tertiary Urology Centre in Trinidad and Tobago. CMJ. Published Online November 1st 2020. Available at: <https://www.caribbeanmedicaljournal.org/2020/11/02/knowledge-attitude-and-practices-towards-antibiotic-use-among-patients-at-a-tertiary-urology-centre-in-trinidad-and-tobago/>

Rampersad F, **Persaud S**, Chan A, Diljohn S, Maharaj P, Ramsundar A. A Turn for the Better – The Benefit of Doing A Limited Prone Rescan to Confirm the Exact Location of an Equivocal Vesicoureteric Junction Calculus Detected on Supine Abdominopelvic CT Scan. EJMED. 2020; 5(3):

Persaud S, Morrison B, McCammon, Sadho K, Gosine C. Time for a mandatory urology rotation? Adequacy of urological exposure during medical school – a survey of graduates of the University of the West Indies, Trinidad and Tobago. Can J Urol. 2020; 27(4):10316.

Mencia MM, Beharry A, Cruz PP. Revision Total Hip Arthroplasty in Jehovah's Witnesses at a Public Hospital: Practical Recommendations for a Low-Resource Setting. Cureus. 2021 Jun 19;13(6). doi: 10.7759/cureus.15761. eCollection 2021 Jun. PMID: 34290937

Mencia MM, Cawich SO. Allergic Dermatitis Following Bilateral Oxidized Zirconium Total Knee Replacements. Journal of Orthopaedic Case Reports. 2021 Feb;11(2):67 doi: 10.13107/jocr.2021.v11.i02.2030. PMID: 34141674

Mencia MM, Goalan R. COVID-19 and its effects upon orthopaedic surgery: The Trinidad and Tobago experience. World Journal of Orthopedics. 2021 Mar 18;12(3):94. doi: 10.5312/wjo.v12.i3.94. eCollection 2021 Mar 18. PMID: 33816137

Partap A, **Seepaul T**. A Not So Transient "Transient Osteoporosis" of the Spine in Pregnancy. Clin Case Rep Open Access. 2021;4(3):192. <https://dx.doi.org/10.46527/2582-5038.192>

Chackan S, Islam S, **Seepaul T**, Naraynsingh V. The Use of Autologous Platelet Rich Plasma as an adjunct for chronically infected wounds in the Orthopedic Patient – A case report of first clinical experience. Doi: <https://doi.org/10.15520/ijmhs.v10i11.3134>

Singh K, Balliram S, Ramkissun R. Perioperative anesthesia management of a pregnant patient with central airway obstruction: a case report. Brazilian Journal of Anesthesiology. 2021 May 31. <https://doi.org/10.1016/j.bjane.2021.02.012>

Harry V, Persad S, Barrow T, et al. UK-trained specialists perform first radical trachelectomy in Trinidad and Tobago. *Int J Gynecol Cancer* Published Online First: July 17, 2021. doi:10.1136/ijgc-2021-002869 Accepted 28 June 2021 *Int J Gynecol Cancer* 2021;0:1–2. doi:10.1136/ijgc-2021-002869

Jugmohansingh G, Sharma V, Ramnarine D & **Juman S**. (2020) Pott's Puffy Tumour with intracranial extension in a Minimally Symptomatic Adolescent. *European Journal of Surgery Case Reports* doi:10.47496/nl.EJSCR.2020.01.02

Ramdass MJ, Spence R, **Harnarayan P**. (2020) Outcomes associated with femoral vein segmental oversew/ligation in penetrating trauma. *Journal of Emergencies, Trauma, and Shock*. Jul 1;13(3):231. ISSN 097400, 0974519X. SJR (2019) 0.38 Q2. H 25

Islam S, Chackan S, Bheem V, Lum T, **Harnarayan P**, Naraynsingh V. (2020) Epidemiology of Neuroendocrine Tumors in an Eastern Caribbean nation-A Retrospective study *Sylwan Journal (European)*.164(4). April, 2020. H-index-10, SJR- 0.19, Quartile-Q3 [Q2], Impact Factor: 0.311 [0.625], Citations-0

Arra A, Bascombe N, Landreth-Smith B, Bartholomew M, **Dan D**. (2020) Choledochal cyst mimicker—When small bowel length matters. *International Journal of Surgery Case Reports*. 2020 Feb 29. ISSN 22102612. <https://doi.org/10.1016/j.ijscr.2020.02.061>. (<http://www.sciencedirect.com/science/article/pii/S2210261220301358>) SJR (2019) 0.23 Q3. H17

Singh K, Gocool N. (2020) A Comparison of Three Methods of Height Estimation and Their Impact on Low Tidal Volume Ventilation in a Mixed Ethnicity Intensive Care Unit: A Real-World Experience. *Cureus*. 2020 Jul;12(7). doi: 10.7759/cureus.9221:e9221. doi: 10.7759/cureus.9221. PMID: 32821572; PMCID: PMC7430537.

Singh K, Sang AC, Singh K. (2020) Fatal Autochthonous Hepatitis E Induced Acute on Chronic Liver Failure Presenting with Multiorgan Failure in a Non-endemic Country: Brief Review of Intensive Care Unit Management. *Cureus*. Mar;12(3):e7490. Doi:10.7759/cureus.7490. PMID:32257729; PMCID: PMC7117613

Ventour D, O'Rourke R. (2020) Trainee Doctors' Perception of the Adequacy of Support during their Intensive Care Attachment—a Phenomenological Study. *Health Science Journal*. 2020;14(6):1-5. DOI:10.36648/1791-809X.14.6.752

Singh Y, Mohammed S, Hosein A, Ramoutar K, Naraynsingh V. (2020) A Giant Gallstone: The Largest Gallstone Removed Laparoscopically in the World. *Cureus*. May 2;12(5):e7933. doi: 10.7759/cureus.7933. PMID: 32494539; PMCID: PMC7265749.

Mencia MM, Goalan R, Bua AA. (2020) Two-Stage Arthrodesis after an Infected Total Knee Replacement Using a Coupled Nail and Dual-Plate Construct: A Third-World Solution and Review of Options. *Case Reports in Orthopedics*. 2020 Feb 10;2020.

Naraynsingh V, **Harnanan D**, **Maharaj R**, Naraynsingh R. (2020) COVID-19 in the West Indies: Trinidad and Tobago Experience. *J Lumbini Med Coll* [Internet]. 27May2020 [cited 21Jan.2021];8(1):126-7. Available from: <https://jlmc.edu.np/index.php/JLMC/article/view/347>

Ekemiri KK, Seepersad P, **Ezinne NE**, Seetaram K, **Farnon N**. A Pilot Study of Visual Function Parameters and Their Relationship to Road Traffic Accidents among Drivers in Trinidad and Tobago. *Global Journal of Health Science*. 2021;13(9):1-24. doi:10.5539/gjhs.v13n9p24 URL: <https://doi.org/10.5539/gjhs.v13n9p24>

Publications & Conferences (cont'd)

Clarke K, Roopchand H, **Murray D**, Roopchand H. The COVID-19 Red Eye: An Algorithm for Differential Diagnosis and Management. DOI: 10.48107/CMJ.2020.12.003

SCHOOL OF DENTISTRY

Hoyte T, Ali A, Bearn D. Anchorage methods and treatment outcomes in the treatment of bimaxillary protrusion: a systematic review and meta-analysis. *Orthodontic Wave*. 2021; 80(2):55-64. <https://doi.org/10.1080/13440241.2021.1902061>

Hoyte T, Kowlessar A, Mahabir A, Khemkaran K, Jagroo P, Jahoor S. The Knowledge, awareness, and attitude regarding COVID-19 among Trinidad and Tobago dentists. A Cross-Sectional Survey. *Oral*. 2021 ;1(3): 250-260.

Naidu R S, Nunn J H, Pahel B, Niederman R. Editorial: Promoting Oral Health in Early Childhood: The Role of the Family, Community and Health System in Developing Strategies for Prevention and Management of ECC. *Frontiers in Public Health*. 2021; 9: 716695. <https://doi.org/10.3389/fpubh.2021.716695>

Sampaio FC, Bönecker M, Paiva SM, Martignon S, Ricomini Filho AP, Pozos-Guillen A, Oliveira BH, Bullen M, **Naidu R**, Guarnizo-Herreño C, Gomez J, Malheiros Z, Stewart B, Ryan M, Pitts N. Dental caries prevalence, prospects and challenges for Latin America and Caribbean countries: a summary and final recommendations from a Regional Consensus. *Brazil Oral Research* .2021; 3 (suppl): e056
DOI: 10.1590/1807-3107bor-2021.vol35.0056

Abreu-Placeres N, Grau-Grullón P, **Naidu R**, García-Godoy F, Newton JT, Ekstrand KR, Pitts N, López L, Babu AS, Feliz-Matos Evangelia Morou L, Jácome-Liévano S, Stefania Martignon. Cariology consensus for undergraduate at dental schools in the Caribbean region. *European Journal of Dental Education* .2021; 25: 717-732. <https://doi.org/10.1111/eje.12651> 3.

Naidu R, Gelbier S. Dentistry and oral health during the 1918 influenza pandemic. *Dental Historian*. 2021; 66: 56-60.

Balkaran R, Al-Bayaty, **Santo R**, Lynch L, Harrynarine D. Oral Medicine Referral patterns in the Emergency Dental Clinic. *Caribbean Medical Journal* [internet]:2021 Apr 29. DOI: <https://doi.org/10.48107/CMJ.2021.04.003>

Balkaran R, Bhat M, **Smith W**, **Marchan S**. COVID-19 Stressors among Dental Academics at UWI—A Caribbean Perspective. *Oral* 2021; 1(1):36-44.

<https://doi.org/10.3390/oral1010005>

Balkaran R, Teelucksingh S, Lutchmansingh F, Naidu RS, Rafeek RN. Gestational diabetes and periodontal disease in Trinidad – A Pilot study. *Caribbean Medical Journal*. 2021; 83(2):1-7. <https://doi.org/10.48107/CMJ2021.04.005>

Rafeek RN, Sa B, Harnarayan P, Farnon N, Singh S, Giddings S, Reid S. Effectiveness of rapid transition to Online teaching during COVID 19: An online cross-sectional survey of students' and teachers' perceptions in a West Indian Dental School. *Creative Education* .2021; 12:1222-1234. <https://doi.org/10.4236/ce.2021.126092>

Rafeek RN, Naidu RS, Peters T, Paul G, Tripathi V. Prevalence and factors associated with dentine hypersensitivity among adult patients attending a university dental clinic in Trinidad, West Indies. A cross-sectional study. *Oral Health and Preventive Dentistry*. 2020; 18:1077-1086. doi: 10.3290/j.ohpd.b871073

Marchan SM, Lynch L-L, Bascombe K, Carty X, Smith WAJ, Rafeek RN. Color stability of gingiva-colored based restorative materials: An in-vitro study. *General Dentistry* .2020 Sept-Oct.

Raman V, Ramlogan S. Academic integrity and the implementation of the honour code in clinical training of undergraduate dental students. *International Journal for Educational Integrity*. 2020; 16:9. <https://doi.org/10.1007/s40979-020-00058-2>

Raman V, Ramlogan S, Sweet J, Sweet D. Application of Rapid Entire Body Assessment (REBA) in assessing chairside ergonomic risk of dental students. *British Dental Journal*. 2020. doi: 10.1038/s41415-020-1855-5

Naraynsingh C, Martin D. Beware of chicken bones: An uncommon presentation of a foreign body in the palate. *Dental Update*. 2021; 48 (2):115.

<https://doi.org/10.12968/denu.2021.48.2.115>

SCHOOL OF PHARMACY

Dahiya, S., **R. Dahiya**. (2021) A comprehensive review of chemistry and pharmacological aspects of natural cyanobacterial azoline-based circular and linear oligopeptides. *European Journal of Medicinal Chemistry* 218: 113406. doi:10.1016/j.ejmech.2021.113406. (Impact Factor = 6.514; Citations: Google Scholar=2; Web of Science=2; Best quartile: Q1-Drug Discovery).

Dahiya, R., S. Dahiya. (2021) Natural bioeffective cyclooligopeptides from plant seeds of *Annona* genus. *European Journal of Medicinal Chemistry* 214: 113221. doi:10.1016/j.ejmech.2021.113221. (Impact Factor = 6.514; Citations: Google Scholar=3, Web of Science=2; Best quartile: Q1-Drug Discovery).

Dahiya, R., S. Dahiya, J. Shrivastava, N.K. Fuloria, H. Gautam, R. Mourya R, et al. (2021) Natural cyclic polypeptides as vital phytochemical constituents from seeds of selected medicinal plants. *Archiv der Pharmazie* 354(4): 2000446. doi:10.1002/ardp.202000446. (Impact Factor = 3.751; Citations: Google Scholar=1, Web of Science=4; Best quartile: Q2-Pharmaceutical Science].

Fuloria, S., V. Subramaniyan, **R. Dahiya**, S. Dahiya, K. Sudhakar, U. Kumari, et al. (2021) Mesenchymal stem cell-derived extracellular vesicles: Regenerative potential and challenges. *Biology (Basel)* 10(3): 172. doi:10.3390/biology10030172 (Impact Factor = 5.079; Citations: Google Scholar=1; Web of Science=1; Best quartile: Q1-Biochemistry Genetics & Molecular Biology).

Dahiya, R., S. Rampersad, T.G. Ramnanansingh, K. Kaur, R. Kaur, R. Mourya, et al. (2020) Synthesis and bioactivity of a cyclopolypeptide from Caribbean marine sponge. *Iranian Journal of Pharmaceutical Research* 19(3): 156-70. doi:10.22037/ijpr.2020.15405.13075. (Impact Factor = 1.696; Citations: Google Scholar=4, Web of Science=4; Best quartile: Q2-Pharmacology, Toxicology and Pharmaceutics (miscellaneous))

Talukdar D, **Ignacio D**, Gupta MM. Immunosuppressant Drugs and Covid-19: Associated Risks, Drug-Drug Interactions & Contraindications. *Coronaviruses* 2021; 10.2174/2666796702666210601125131 e010621193747. (Impact Factor=N/A; Citations: Google Scholar = 0, Web of Science=0). Date of publication: August, 2021

Awasthi, P., B. A. Bhongade, G. Singh, M. N. Noolvi, **A. K. Gadad** (2020) Synthesis of optically active aminobenzothiazoles. *SynOpen* 4: 23.

Bhongade, B.A., N. D. Amnerkar and **A. K. Gadad** (2020) 3D-QSAR Studies on 4, 5-Dihydro-1H-pyrazolo [4, 3-h] Quinazolines as Plk-1, CDK2/A and Aur-A Serine/Threonine Kinase Inhibitors. *Letters in Drug Design and Discovery* 17: 388

Maharaj, L., Y. Clement, **A. K. Gadad**, M. M. Gupta (2021) Formulation and evaluation of diclofenac sodium loaded poly-ε-caprolactone microsphere. *Latin American Journal of Pharmacy* 40(11): 2592

Iqbal MK, Iqbal A, Anjum H, **Gupta MM**, Ali J, Baboota S. Determination of in vivo virtue of dermal targeted combinatorial lipid nanocolloidal based formulation of 5-fluorouracil and resveratrol against skin cancer. *Int J Pharm.* 2021 Oct 12;610:121179. doi: 10.1016/j.ijpharm.2021.121179.

Jain V, Pareek A, Bhardwaj YR, Sinha SK, **Gupta MM**, Singh N. Punicalagin and ellagic acid containing *Punica granatum L.* fruit rind extract prevents vincristine-induced neuropathic pain in rats: an *in silico* and *in vivo* evidence of GABAergic action and cytokine inhibition. *Nutr Neurosci.* 2021 Aug 9:1-18. doi: 10.1080/1028415X.2021.1954293.

Publications & Conferences (cont'd)

Thotakura N, **Gupta MM**, Rajawat JS, Raza K. Promises of Lipid-based Drug Delivery Systems in the Management of Breast Cancer. *Curr Pharm Des*. 2021 Jul 27. doi: 10.2174/1381612827666210728104318.

Talukdar D, Stojkovski K, Suarez DB, **Gupta MM**. Role of Information Technology in COVID-19 Vaccination Drive: An Analysis of the COVID-19 Global Beliefs, Behaviors, and Norms Survey. *Cureus*. 2021 Jun 25;13(6):e15922. doi: 10.7759/cureus.15922.

Iqbal MK, Iqbal A, Imtiyaz K, Rizvi MMA, **Gupta MM**, Ali J, Baboota S. Combinatorial lipid-nanosystem for dermal delivery of 5-fluorouracil and resveratrol against skin cancer: Delineation of improved dermatokinetics and epidermal drug deposition enhancement analysis. *Eur J Pharm Biopharm*. 2021 Jun;163:223-239. doi:10.1016/j.ejpb.2021.04.007.

Shaw P, Senthilnathan R, Krishnan S, Suresh D, Shetty S, Muthukaliannan GK, Mani RR, Sivanandy P, Chandramoorthy HCK, **Gupta MM**, Baxi S, Jayaraj R. A Clinical Update on the Prognostic Effect of microRNA Biomarkers for Survival Outcome in Nasopharyngeal Carcinoma: A Systematic Review and Meta-Analysis. *Cancers (Basel)*. 2021 Aug 29;13(17):4369. doi: 10.3390/cancers13174369.

Talukdar D, Jankie S, Pancholi SS, Chatterjee A, Kumar P, **Gupta MM**. Strategic Role and Challenges of Community Pharmacists in SARS-CoV-2 Outbreak. *J Res Pharm Pract*. 2021 May 13;10(1):1-9. doi: 10.4103/jrpp.JRPP_20_131.

Gupta MM. Impact of Coronavirus Disease (COVID-19) pandemic on classroom teaching: Challenges of online classes and solutions. *J Educ Health Promot*. 2021 May 20;10:155. doi: 10.4103/jehp.jehp_1104_20.

Iqbal MK, Chaudhuri A, Iqbal A, Saleem S, **Gupta MM**, Ahuja A, Ali J, Baboota S. Targeted Delivery of Natural Bioactives and Lipid-nanocargos against Signaling Pathways Involved in Skin Cancer. *Curr Med Chem*. 2020 Nov 4. doi: 10.2174/0929867327666201104151752

D Talukdar, **S Jankie**, SS Pancholi, A Chatterjee, P Kumar, MM Gupta. Strategic Role and Challenges of Community Pharmacists in SARS-CoV-2 Outbreak. *J Res Pharm Pract*. 2021;10(1):1-9. Published 2021 May 13. doi:10.4103/jrpp.JRPP_20_131

SMaharaj, MMoonilal, **S Jankie**, D Dookeram. Pharmacist Rethink through a Planetary Health Lens. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*. January 2021. doi:10.1177/00469580211020885

S Jankie, LM Pinto Pereira. Targeting insulin resistance with selected antidiabetic agents prevents menopausal associated central obesity, dysglycemia, and cardiometabolic risk. *Post Reproductive Health*. December 2020. doi:10.1177/2053369120982753

MM Gupta, **S Jankie**, SS Pancholi, D Talukdar, PK Sahu, B Sa. Asynchronous Environment Assessment: A Pertinent Option for Medical and Allied Health Profession Education During the COVID-19 Pandemic. *Education Sciences*. November 2020; 10(12):352.

S Jankie, J Johnson, AS Adebayo, GK Pillai, LM Pinto Pereira. Efficacy of Levofloxacin Loaded Nonionic Surfactant Vesicles (Niosomes) in a Model of *Pseudomonas aeruginosa* Infected Sprague Dawley Rats. *Advances in Pharmacological and Pharmaceutical Sciences*, October 2020. <https://doi.org/10.1155/2020/8815969>

S Jankie, S Pooransingh, A Villaroel Stuart, LM Pinto Pereira. SARS-Cov-2 and drug shortages Trends and lessons from a Caribbean perspective. *Caribbean Medical Journal*. October 2020. DOI: 10.48107/CMJ.2020.11.002

Maharaj, S., Brahim, A., Brown, H. et al. Identifying dispensing errors in pharmacies in a medical science school in Trinidad and Tobago. *J of Pharm Policy and Pract* 13, 67 (2020). <https://doi.org/10.1186/s40545-020-00263-x>

Maharaj S., Moonilal M, Jankie S, Dookeram D. Pharmacist Rethink through a Planetary Health Lens. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*. January 2021. doi:10.1177/00469580211020885

Maharaj S.B., Ramsewak S.S., Dookeram D., et al Did vaccine inequity lead to the second wave of COVID-19 infections in Trinidad and Tobago? *BMJ Global Health* 2021; 6:e007096.

Sarfraz S, **Singh S**, Hawke A, Clarke ST, Ramdath DD. Effects of High-Fat Diet Induced Obesity and Fructooligosaccharide Supplementation on Cardiac Protein Expression. *Nutrients* 2020, 12, 3404.

SCHOOL OF VETERINARY MEDICINE

Ali, J., **G. Laurence**, D. Bince, **C. Legall, K. Georges, M. Alkhal, A. Nanan**, S. Jugool, R. Adam, **A. Persad** and **M. Yearwood** (2020). *Launching the Advanced Trauma Operative Management (ATOM), Course in Trinidad and Tobago*. *Creative Education* **11**(12): 2570-2579

Khan, A. S., K. Georges, S. Rahaman, W. Abebe and **A. A. Adesiyun** (2021). Characterization of Salmonella Isolates Recovered from Stages of the Processing Lines at Four Broiler Processing Plants in Trinidad and Tobago. *Microorganisms* **9**(5): 1048.

Kumar, N., K. Mohan, K. Georges, F. Dziva and A. A. Adesiyun (2020). "Molecular characterization of Salmonella isolates recovered from slaughtered poultry in Trinidad. *Journal of Food Processing and Preservation* **44**(12): e14927.

Kumar, N., K. Mohan, K. Georges, F. Dziva and A. A. Adesiyun (2021). Occurrence of Virulence and Resistance Genes in Salmonella in Cloacae of Slaughtered Chickens and Ducks at Pluck Shops in Trinidad. *Journal of Food Protection* **84**(1): 39-46.

Maguire, M., **A. S. Khan, A. A. Adesiyun, K. Georges** and N. Gonzalez-Escalona (2021). "Closed genome sequence of a Salmonella enterica serotype Senftenberg strain carrying the mcr-9 gene isolated from broken chicken eggshells in Trinidad and Tobago. *Microbiology Resource Announcements* **10**(21): e01465-01420.

Suepaul, S., K. Georges, C. Unaka, F. Boyen, J. Sookhoo, K. Ashraph, **A. Yusuf** and P. Butaye (2021). Determination of the frequency, species distribution and antimicrobial resistance of staphylococci isolated from dogs and their owners in Trinidad. *PloS one* **16**(7): e0254048

Mohammed, S., V. Sundaram, N. Zyuzikov. 2021. Effect of 150 kHz electromagnetic radiation on the development of polycystic ovaries induced by estradiol valerate in Sprague Dawley rats. *Journal of Ovarian Research* **14**(1):26.

Sundaram, V., T. Mohammed, S. Rampersad, G. Williams. 2021. A rare report on 18-month survival of a dog born with multiple anomalies including atresia ani. *Morphologie* **105**(350):252-258.

Williams, M., CHO Lallo, V. Sundaram. 2021. The Effect of Early Post Hatch Feeding Times on the Growth and Development of the Gastrointestinal Tract of Mule Ducklings to Five Days of Age. *Brazilian Journal of Poultry Science* **23**(1).

Gibbons, I., V. Sundaram, A. Adogwa, A. Odekunle. 2021. Cytoarchitecture of the medial nucleus of the trapezoid body of three species of bats (*Noctilio leporinus*, *Phyllostomus hastatus*, and *Carollia perspicillata*) with different foraging behaviour. *Brazilian Journal of Biology* **81**(4):909-916.

Sameroff, S., R. Tokarz, K. Jain, A. Oleynik, **C. Carrington**, W.I. Lipkin, C.A. **Oura**. 2021. Novel Quarantavirus and other viral sequences Identified from Ticks Parasitizing Hunted Wildlife in Trinidad and Tobago, Ticks and Tick-borne Diseases **12**(14):1-14.

Mohamed R, C. Modeste, K. Beharry, J. Kheju, D. Labadie and R. Suepaul. 2021. The Effects of Prenatal Exposure of Rabbit to Valproic Acid. *International Journal of Veterinary Science* **11**(1):1-6.

Bally A, S. Francis-Charles, T. Ackbar, Y. Beharrylal, **R. Charles, A. Basu, R. Suepaul**. 2021. The prevalence of gastrointestinal parasites and seroprevalence of *Toxoplasma gondii* in captive ocelots (*Leopardus pardalis*) in Trinidad, West Indies. *Veterinary Medicine International* **2021**:1-5

Publications & Conferences (cont'd)

Mohamed R, AK Persad. 2021. Diaphyseal nutrient foramina in the humerus, radius, femur, and tibia bones of mixed breed dogs. *Journal of Advanced Veterinary and Animal Research* 8(2):203-9.

Muhammad S, F.Bande, A.Ishaka, A. Sani, K. Georges. 2021. Therapeutic options for COVID-19: a quick review. *Journal of chemotherapy* 33(2):67-84.

Kirejczyk S. G, C. Goodwin, Z.S. Gyimesi, T.T. Zachariah, G. L. Sturgeon, A.R. Armwood, **K. Frontera-Acevedo**, A. Kokosinka, M. Seguel, S.B. Fogelson, A.L. Burnum. 2021 A Retrospective Study of Pathology in Bats Submitted to an Exotic and Zoo Animal Diagnostic Service in Georgia, USA (2008–2019). *Journal of Comparative Pathology* 185:96-107.

Singh S.M, W.C. Huggins, **L. Benjamin**, D.D. Mahadeo, **K. Georges.** 2021. An exploratory investigation of Newcastle disease virus serum antibodies in backyard chickens of Trinidad with geographical considerations. *Tropical Agriculture* 97(4): 271-280

Charles, R.A., S. Bermúdez, P. Banović, D. Obregón Alvarez, A.A. Díaz-Sánchez, B. Corona-González, E.M.C. Etter, I. Rodríguez González, A. Ghafar, A. Jabbar, S. Moutailler, A. Cabezas-Cruz. 2021. Ticks and tick-borne diseases in Central America and the Caribbean: A one health perspective. *Pathogens* 10 (10): 1273.

Charles, R.A., A.K. Basu. 2021. A review of the Afrotropical sand tampan, *Ornithodoros savignyi*: a complex species. *CAB Reviews* 16: 1-13.

Jones, K.R. 2021. *Trichuris* spp. in Animals, with Specific Reference to Neo-Tropical Rodents. *Veterinary Sciences* 8: 15.

Jones, K.R., L. Tardieu. 2021. *Giardia* and *Cryptosporidium* in Neo-Tropical Rodents and Marsupials: Is There Any Zoonotic Potential? *Life* 11 :256.

Singh, H-M. S., **K.R. Jones.** (2021) Postweaning Performance of the Agouti (*Dasyprocta leporina*): A Neotropical Rodent with Potential for Domestication. *Veterinary Medicine International* 2021: 6664656.

Jones, K.R., K. R. Lall, and G. W. Garcia. 2021. Reproductive diseases in captive reared agoutis (*Dasyprocta leporina*). *Brazilian Journal of Biology* 82: <https://doi.org/10.1590/1519-6984.237869>

Paharsingh I, **R. Suepaul**, L. Gyan, **A. Hosein, I. Pargass.** 2020. Disseminated *Mycobacterium avium* subsp. *hominissuis* infection and ascites in an FIV positive cat. *Veterinary Clinical Pathology* 49 (3): 465-9.

Mohamed R, W. Pérez, M.L. da Veiga. 2020. Histomorphometrical study on the skin of different regions of the Caribbean common opossum (*Didelphis marsupialis* Linnaeus, 1758). *Anatolia, Histologic, Embryologic* 5 (1):144-50.

Sant, C., S. Thomas, C. Want, V. Maharaj, **N. Kalloo, A. Hosein**, A. 2020. A case of *Pearsonema* eggs in the urine sediment of a cat in Trinidad. *Veterinary Parasitology: Regional Studies and Reports*, 22, 100491.

Ali, A.J., **K.R. Jones.** 2020. Nutritive value and physical properties of Neo-tropical rodent meat-with emphasis on the Capybara (*Hydrochoerus hydrochaeris*). *Animals* 10: 2134.

John, E. N., **K.R. Jones.** 2020. Evaluation of Unconventional Supplements to the Diet of Intensively Reared Agouti (*Dasyprocta leporina*) in Trinidad, West Indies. *Veterinary Sciences* 7 :108.

Nunes, K.K., **G.W. Garcia, K.R. Jones.** 2020. Carcass fabrication: non-domesticated neotropical mammals vs. selected domesticated livestock. *Tropical Agriculture* 97: 197-203.

Jones, K.R., G.W. Garcia 2020. Is the strategic use of an anthelmintic necessary in the management of agouti (*Dasyprocta leporina*)? *Tropical Agriculture* 97: 281-291.

Jones, K.R., K.R. Lall, G.W. Garcia. 2020. Dystocia in a captive reared Agouti (*Dasyprocta leporina*) in Trinidad and Tobago, West Indies. *Veterinary sciences* 7: 30.

Jones, K.R., K.R. Lall, R. Suepaul G.W. Garcia. 2020. Mammary Diseases in a Captive Reared Agouti (*Dasyprocta leporina*) in Trinidad. *Veterinary Sciences* 7: 137.

CENTRE FOR MEDICAL SCIENCES EDUCATION (CMSE)

K Krishnamurthy, Natasha Sobers, A Kumar, N Ojeh, A Scott, C Cave, S Gupta, J Bradford-King, **B Sa**, O P Adams, M H Campbell, M A A Majumder. COVID-19 vaccine acceptance among health professionals of Queen Elizabeth Hospital, Barbados. 2021, 14 3309–3319. *Journal of Multidisciplinary Healthcare*.

MAA Majumder, U Gaur, K Singh, L Kandamaran, S Gupta, M Haque, S Rahman, **B Sa**, M Rahman, F Rampersad. Impact of COVID-19 Pandemic on Radiology Education, Training and Practice: A Narrative Review. 2021, 13(11) 354-370. *World Journal of Radiology*.

K Singh, S Sarkar, U Gaur, S Gupta, OP Adams, MAA Majumder, **B Sa**. Smartphones and Educational Apps use among medical students of a Smart University Campus. *Frontiers in Communication*. 2021, 6:649102. doi: 10.3389/fcomm.2021.649102

S Sarkar, **B Sa**, K Singh, A Williams, K Singh, U Gaur, A Bharatha, V Victor, MAA Majumder. Psychophysiological effects of yoga on stress management among medical and allied health professional students during COVID-19 pandemic: A narrative review. *Advances in Human Biology*. 2021;11: S3-12. doi: 10.4103/aihb.aihb_28_21

R Rafeek, **B Sa**, P Harnarayan, N Farnon, S Singh, S Giddings, S Reid. Effectiveness of rapid transition to online teaching during COVID 19: An online cross-sectional survey of Students' and Teachers' Perceptions in a West Indian Dental School. 2021. *Creative Education*. 2021; 12, 1222-1234. [10.4236/ce.2021.126092](https://doi.org/10.4236/ce.2021.126092)

MAA Majumder, D Cohall, N Ojeh, M Campbell, OP Adams, **B Sa**, K Khan, R Pierre, H Trotman-Edwards. Assessing online learning readiness and perceived stress among first year medical students during COVID-19 pandemic: A multi-country study. *Canadian Medical Education Journal*. 2021. <https://doi.org/10.36834/cmej.71609>.

MAA Majumder, S Gupta, OP Adams, **B Sa**, K Singh. Use of an adaptive e-learning platform as a formative assessment tool in the Cardiovascular System course of MBBS programme. *Advances in Medical Education and Practice*. 2020;11: 989–996 <https://doi.org/10.2147/AMEPS267834>.

K Singh, S Gupta, U Gaur, OP Adams, **B Sa**, MAA Majumder. Disparity in biomedical publication trends in the CARICOM countries: Is there a need for a more vibrant research culture in the region? *Sage Open Medicine*. 2020;8:1-10 <https://doi.org/10.1177/2050312120953285>.

MM Gupta, S Jankie, SS Pancholi, D Talukdar, PK Sahu, **B Sa**. Asynchronous Environment Assessment: A Pertinent Option for Medical and Allied Health Profession Education during COVID-19 Pandemic. *Education Sciences*. 2020;10(12), 352; <https://doi.org/10.3390/educsci10120352>.

U Gaur, **B Sa**, S Sarkar, A Williams, K Singh, MAA Majumder. Challenges and Opportunities of Pre-clinical Medical Education: COVID-19 Crisis and Beyond. *SN Comprehensive Clinical Medicine*. 2020; 2:1992–1997. <https://doi.org/10.1007/s42399-020-00528-1>

MAA Majumder, K Singh, M Gittens-St. Hilaire, S Rahman, **B Sa**, M Haque. Tackling Antimicrobial Resistance by promoting Antimicrobial stewardship in Medical and Allied Health Professional Curricula. *Expert Review of Anti-infective Therapy*. 2020 18(12):1245-1258. <https://doi.org/10.1080/14787210.2020.1796638>

Publications & Conferences (cont'd)

Majumder MAA, Ojeh N, Rahaman S, **Sa B.** Empathy in Medical Education: Can 'Kindness' be taught, learned and assessed? *Advances in Human Biology.* 2020; 10:38-40.

Sahu P, Phillips CAN, **Sa B.** Exploring Students' Perceptions of the Educational Environment in a Caribbean Veterinary School: A Cross-Sectional Study. *Journal of Veterinary Medical Education.* Published Advance Online: February, 2020. doi: 10.3138/jvme.2018-0008.

Nayak, B.S.; **Sahu P.K.**; Ramsaroop, K.; Maharaj, S.; Mootoo, W.; Khan, S.; Extravour, R.M. Prevalence and factors associated with depression, anxiety and stress among healthcare workers of Trinidad and Tobago during COVID-19 pandemic: a cross-sectional study. *BMJ Open.* 2021, 11(4):e044397

Nayak, B.S.; **Sahu P.K.** Socio-demographic and educational factors associated with Depression, Anxiety and Stress among Health Professions students. *Psychology, Health and Medicine.* 2021, 9:1-6.

Nayak, B.S.; Sridevi, V.; **Sahu P.K.**; Subbaramaiah, N.; Telang, L.; Goudappala, P.; Halappa Kariappa, C.; Sharma, A.; Sagari K.M.; Nayak, A. Students' engagement and perceptions of small group tutorial classes among undergraduate medical students. *Journal of Advances in Medical Education & Professionalism.* 2021, 9(1), 18–25.

Gupta, M.M.; Jankie, S.; Pancholi, S.S.; Talukdar, D.; **Sahu, P.K.**; Sa, B. Asynchronous Environment Assessment: A Pertinent Option for Medical and Allied Health Profession Education During the COVID-19 Pandemic. *Education Sciences.* 2020, 10, 352.

Chattu, V.K.; **Sahu, P.K.**; Seedial, N.; Seecharan, G.; Seepersad, A.; Seunarine, M.; Sieunarine, S.; Seymour, K.; Simboo, S.; Singh, A. Subjective Well-Being and Its Relation to Academic Performance among Students in Medicine, Dentistry, and Other Health Professions. *Education Sciences.* 2020, 10, 224.

Umakanthan, S.; **Sahu, P.K.**; Ranade, A.V.; Bukelo, M.M.; Rao, J.S.; Abrahao-Machado, L.F.; Dahal, S.; Kumar, H.; Dhananjay, K.V. Origin, transmission, diagnosis and management of coronavirus disease 2019 (COVID-19). *Postgraduate Medical Journal (BMJ),* 2020 Dec;96(1142):753-758.

Journal Abstracts

SCHOOL OF MEDICINE

Department of Clinical Surgical Sciences

Persaud SDN, Harnanan D, **Harnarayan P,** Ramdass J, Naraynsingh V. Multi-Centre Study of Popliteal Artery Aneurysms Treated with Surgery over 10 Years Trinidad & Tobago Journal of The Caribbean College of Surgeons 2021 Vol.2; 17

Harnanan D, Babootee N, Ramdass MJ, **Harnarayan P,** Naraynsingh V. Traumatic arteriovenous fistulas Trinidad & Tobago Journal of The Caribbean College of Surgeons 2021 Vol.2; 18

Islam S, Saroop S, Bheem V, **Harnarayan P,** Dan D, Cawich SO, Naraynsingh V. Lifestyle Practices Among Health Care Professionals in a Tertiary Hospital in Trinidad Trinidad & Tobago Journal of The Caribbean College of Surgeons 2021 Vol.2; 20

Rafeek R, Sa B, Harnarayan P, Farnon N, Singh S, Giddings G, Reid S. Rapid transition to online teaching during COVID 19: Students' and Teachers' Perceptions in a Pioneer Caribbean Dental School. <https://doi.org/10.21203/rs.3.rs-84862/v1>

SCHOOL OF PHARMACY

J Phillips, J Dassyne, J Marjadsingh, J Maturasingh, K Hanna, K Narinesingh, K Narine, K Deonarine, S Jankie, **S Singh.** Knowledge, Attitudes and Practices towards the Flu (Influenza) Vaccine and COVID-19 Vaccines amongst University Staff and Students in Trinidad and Tobago. CCHSRD, UWI, St. Augustine, National Health Research Conference 2021, November 18 and 19, 2021, 2-day Virtual Conference

T Ramnanansingh, **S Singh**, J Johnson, S Rocke, V Sundaram, C Carrington, J Addae. on-invasive Measurement of Microvascular Function to Determine Age-Related Differences. CCHSRD, UWI, St. Augustine, National Health Research Conference 2021, November 18 and 19, 2021, 2-day Virtual Conference

Y Clement, **S Singh**, S Motilal, M Francis, A Forde. Glycemic Control, Insulin Resistance and Beta Cell Function in Patients with Type 2 Diabetes Adherent to Metformin Monotherapy in Trinidad. CCHSRD, UWI, St. Augustine, National Health Research Conference 2021, November 18 and 19, 2021, 2-day Virtual Conference

S Jankie, **S Singh**. Effects of Polycystic Ovary Syndrome (PCOS) on the Quality of Life of Women Ages 18-45: A Systematic Review. CCHSRD, UWI, St. Augustine, National Health Research Conference 2021, November 18 and 19, 2021, 2-day Virtual Conference

S Jankie, N Barsatee, V Dookhan, S Hernandez, K Sookdeo, A Villarroel Stuart. Patients' attitudes, beliefs and concerns regarding medication disposal in Trinidad. West Indian Medical Journal. Vol 69 (Suppl 2): 1-96. June 16-19, 2021.

Books & Book Chapters

SCHOOL OF MEDICINE

Department of Clinical Surgical Sciences

Nayak BS. Essentials of Biochemistry, 4th Edition, Jaypee Medical Publishers ltd. New Delhi, India

Department of Clinical Surgical Sciences

Chattu V, **Khan R**, Kumary Soosanna, Taywade M, Patil, R. Telemedicine and Telehealth applications for the post-COVID-19 pandemic future. Oct 2020. In book: Economics of COVID-19: Digital Health Education and Psychology. Chapter: 11. Publisher: Adhyayan Publishers & Distributors Journal Manuscripts

Department of Clinical Medical Sciences

Nelleen Baboolal and Gershwin Davis . Ageing and a review of dementia research in Trinidad and Tobago , in *Connecting the Dots: Work. Life. Balance. Ageing*, Patricia Mohammed and Cheryl-Ann Boodram (Eds) Ian Randle Publishers, Kingston, 2020

SCHOOL OF NURSING

Onuoha P, Ramdeen-Mootoo, G, Edwards, R, Gobin, R, McConney, D, Greene-Nicholas, A, Ramroo, D., Young, V. (2020). Exploring the Knowledge Levels, Attitudes and Beliefs of Patients' Relatives Towards Organ Donation in the Intensive Care Units of Two Majors Hospitals in Trinidad, *Global Journal of Health Science*, Vol. 12, No. 9; 2020. DOI:10.5539/gjhs.v12n9p15; SSN 1916-9736 E-ISSN 1916-9744, Published by Canadian Center of Science and Education <https://doi.org/10.5539/gjhs.v12n9p15>

Hepburn, E, **Onuoha P, Daniel E**. (2020). Nurses' Bullying Experiences: A Case study of a Caribbean Major Island Hospital, *Global Journal of Health Science; Vol. 12, No. 12; 2020 ISSN 1916-9736 E- ISSN 1916-9744.*, Published by Canadian Center of Science and Education <https://doi.org/10.5539/gjhs.v12n12p17>.

SCHOOL OF PHARMACY

Dahiya, S., **R. Dahiya**. (2021) Organic nano-carriers for targeted delivery of anticancer agents. In *Advanced Drug Delivery Systems in the Management of Cancer*. Eds. Dua, K., M. Mehta, T. de Jesus Andreoli Pinto, L.G. Pont, K.A. Williams, M.J. Rathbone. Netherlands: Academic Press, Elsevier. p.467-97. ISBN: 978-0-323-85503-7. Chapter 37. Available from: <https://www.sciencedirect.com/science/article/pii/B9780323855037000109?via%3Dihub>

Publications & Conferences (cont'd)

Dahiya, R., H. Gautam, G. Jadon, S. Dahiya. (2021) Bioactive Oxazole-Based Cyclopolypeptides from Marine Resources and Their Health Potential. In: Bioactive Peptides: Production, Bioavailability, Health Potential and Regulatory Issues. Eds. Onuh, J.O., M. Selvamuthukumar, Y.V. Pathak. Boca Raton, FL, USA: CRC Press, Taylor & Francis Group, p.133-68. ISBN: 978-1-003-05277-7. Chapter 8. Available from: <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003052777-8>

Dahiya, R., S. Dahiya. (2021) Advanced Drug Delivery Applications of Self-Assembled Nanostructures and Polymeric Nanoparticles. In: Handbook on Nano-Biomaterials for Therapeutics and Diagnostic Applications. Eds. Anand, K., M. Saravanan, B. Chandrasekaran, S. Kanchi, S.J. Panchu, Q-S. Chen. Netherlands: Elsevier, p.297-339. ISBN: 978-0-12-821013-0. Chapter 13. Available from: <https://www.sciencedirect.com/science/article/pii/B9780128210130000210> <https://doi.org/10.1016/B978-0-12-821013-0.00021-0> (Citations: Google Scholar=2)

Dahiya, S., **R. Dahiya.** (2020) New Deliveries and Nanomedicines: Commercial Aspects and Business Perspectives. In: Nano Medicine and Nano Safety - Recent Trends and Clinical Evidences. Eds. Das, M.K., Y.V. Pathak. Singapore: Springer Nature, p.579-609. ISBN: 978-981-15-6255-6. Chapter 22. Available from: <https://www.springer.com/gp/book/9789811562549>

SCHOOL OF VETERINARY MEDICINE

Oura C.A.L. (2020). African Swine Fever. In Merck Veterinary Manual. Ed. Susan E.A and Michael A. 11th edition, Wiley, ISBN: 9780911910612.

Oura.C.A.L.(2020). Academic and Institutional 'One Health' Research Capacity Building. In One Health: The Theory and Practice of Integrated Health Approaches, Eds. Zinsstag, J., Schelling E., Crump, L., Whittaker, M., Tanner, M., and Stephen, C. 2nd edition. CAB International. ISBN-13: 978-1780643410.

Lans C, **Sant C, Georges K.** (2020). Ethno remedies Used for Horses in British Columbia and Trinidad and Tobago. In Ethnoveterinary Medicine. Eds. McGaw, Lyndy J. Abdalla, Muna Ali. Springer Verlag, SBN 978-3-030-32270-0

Conference Presentations

SCHOOL OF MEDICINE

Department of Pre-Clinical Sciences

Carrington C.V.F.

"Emerging viral diseases: We reap what we sow".

2020 National Health Research Conference on "Advancing Health Research in Trinidad and Tobago. Online, November 19 - 20, 2020.

Department of Pre-Clinical Sciences

C. Bodkyn, K. Petricca, R. Boateng, B. Tang, A. Denburg, C. Alexis, C. Browne-Farmer, S. Mclean-Salmon, C. Sinquee-Brown, M. Reece-Mills

Health systems determinants of childhood cancer drug access: A comparative mixed-methods study of four Caribbean countries.

52nd Congress of the International Society of Paediatric Oncology, SIOP 2020 virtual conference.

A. Ramlackhansingh

Letters from the West Indies – a review of Neurology cases from Trinidad.

Midlands Neurology Society Meeting, Birmingham, United Kingdom, November 2020.

F. Rampersad

Stone Disease and Radiology: The Basics and Beyond

TTMA, March 2021

F. Rampersad

Radiological Findings of Giant Cell Arteritis: Ophthalmology Society of TT, November 2020

S. Reid, G. St. Bernard, S. Motilal, M. Ivey, K. Khan, S. Pooransingh, R. Khan

COVID-19 Concerns and Coping among Persons with Chronic Medical Illnesses National Health Research Conference, November 2020

S. Reid, G. St. Bernard, S. Motilal, M. Ivey, K. Khan, S. Pooransingh, R. Khan

COVID-19 Concerns and Coping among Persons with Chronic Medical Illnesses-Preliminary Findings The UWI St. Augustine COVID-19 Research - Evidence to Inform a Multi-Disciplinary Response to the Pandemic, September 2020

S. Reid B. Sa, R. Rafeek, P. Harnarayan, N. Farnon, S. Singh, S. Giddings

Clinical Students Experience of Emergency Remote Teaching at the Faculty of Medical Sciences, St. Augustine: Preliminary Findings.

The UWI St. Augustine COVID-19 Research - Evidence to Inform a Multi-Disciplinary Response to the Pandemic, September 2020

SCHOOL OF NURSING

O.N. Ocho

"Nurses' preparation for transitioning into positions of leadership—A Caribbean perspective"

Oral presentation at 8th edition of virtual conference on Nursing Education & Practice, July 15-16, 2021.

O.N. Ocho

The Role of Nurse Leaders in Staff Development and Career Coaching: The Nurse Leaders' Perspectives. Oral presentation at Dr Mary Jane Sievwright Nursing and Midwifery Research Conference- Virtual Edition

Mona, Jamaica, May 2021.

O.N. Ocho

Mobility of Health Professionals during the Pandemic.

Oral presentation at PAHO/WHO International Nurses Day Webinar Virtually, May 2021.

O.N. Ocho

Managed Migration: The Caribbean Approach to Addressing Nursing Services Capacity.

Oral presentation at the 4th Annual Conference on Migration and Health, The University of Texas Medical Branch at Galveston, March, 2021

O.N. Ocho

Nurses' preparation for transitioning into positions of leadership—A Caribbean perspective.

Oral presentation at National Health Research Conference, The University of the West Indies, St Augustine. November 2020.

Conference Papers & Proceedings

SCHOOL OF MEDICINE

Department of Para-Clinical Sciences

Katkar V, Unakal C, Kurhade A, **Akpaka PE.**

Agar gel disk as an alternative to paper disk diffusion antimicrobial susceptibility test. 2020; 16th Annual CACM Symposium "They still dwell among us" held virtually on October 30th, 2020. Oral Presentation.

Ashraph K, Unakal CG, **Akpaka PE,** Kurhade AM. Vaginal Candidiasis and Associated Risk Factors among Pregnant Women from Trinidad and Tobago. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Oral Presentation.

Gobin N, Gopaul D, Gopaulsingh A, Graham A, Greenidge T-M, Guy Z, Hajarysingh C, Williams J, Unakal CG, **Akpaka PE** and, Ivey M. Assessment of the Knowledge, Attitude and Practices towards Vulvovaginal Candidiasis amongst Women of Reproductive Age Attending The University of the West Indies St. Augustine. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Poster presentation

Publications & Conferences (cont'd)

Aleong DA, Unakal CG, **Akpaka PE**, Ashraph K, Kurhade AM. Prevalence of Bacteriuria in Pregnant Women Attending Antenatal Clinics of Trinidad and Tobago. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Poster presentation

Ming Hon AM, Mitcham A, Mohammed A, Mohammed A, Mohammed I, Mohammed R, Mohammed S, Mohammed S, **Clement Y**. Factors affecting marijuana use among cancer patients attending at an oncology specialty centre in Trinidad. Caribbean Public Health Agency Research Conference- 65th Annual Council and Scientific Meetings. June 2021, Virtual.

Clement Y. Herbs and dietary supplements in rheumatoid arthritis: The clinical evidence. West Indian Immunology Society - Inaugural Symposium. April 2021, Virtual.

Clement Y, Singh S, Motilal S, Maharaj R, Nunez-Smith M. Glycaemic Control in Type-2 Diabetic Patients on Metformin Monotherapy in Trinidad. 2020 National Health Research Conference. November 2020, Virtual.

Clement Y, Ming Hon A, Mitcham A, Mohammed A, Mohammed A, Mohammed I, Mohammed R, Mohammed S, Mohammed S. The Knowledge, Attitude and Practices of the use of Medical Marijuana in the Management of Cancer. 2020 National Health Research Conference. November 2020, Virtual.

S. Umakanthan, S. Gujral, A. Borges, "What next after MD" online conference held at Tata Memorial Hospital, India, 2021.

S. Umakanthan, "A Diverse Perspective In Illustrating Covid-19" online conference held at Parul University, India, 2021.

S. Umakanthan, "The Science of Cancer" at Eric Williams Medical Sciences Complex, Trinidad, 2021

Molecular immune pathogenesis and diagnosis of COVID-19" held at The Cleveland Clinic Foundation Center, USA in association with the British Medical Journal (BMJ). USA, 2021 17th Annual CACM Symposium" held at The UWI, Trinidad, 2021.

Patrick E. Akpaka, Khamiya Henry, Reinand Thompson, **Unakal C. G** Prevalence of Streptococcus agalactiae among pre-natal patients in Trinidad and Tobago. IMED 2021, Nov 4 – 6, 2021, Virtual Conference

Unakal C. G., Venkatesh Katkar, Arvind Kurhade, Patrick Akpaka. Agar gel disk as an alternative to paper disk diffusion antimicrobial susceptibility test. 2020; 16th Annual CACM Symposium "They still dwell among us" held virtually on October 30th, 2020. Oral Presentation.

K Ashraph*, **Unakal C. G.**, P E Akpaka, A M Kurhade. Vaginal Candidiasis and Associated Risk Factors among Pregnant Women from Trinidad and Tobago. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Oral Presentation.

Unakal C. G.*, N Gobin, D Gopaul, A Gopaulsingh, A Graham, T-M Greenidge, Z Guy, C Hajarysingh, J Williams, PE Akpaka and, M Ivey. Assessment of the Knowledge, Attitude and Practices towards Vulvovaginal Candidiasis amongst Women of Reproductive Age Attending the University of the West Indies St. Augustine. 2020; National Health Research Conference 2-Day Virtual Conference

"Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Poster presentation

Unakal C. G. *, DA Aleong, PE Akpaka, K Ashraph, AM Kurhade. Prevalence of Bacteriuria in Pregnant Women Attending Antenatal Clinics of Trinidad and Tobago. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Poster presentation

S Rajh*, BM Manohar, KF Acevedo, C Oura, S Suepaul, **Unakal C. G.**, K Georges, R Mohamed, L Gyan, R Suepaul. A Study of Pulmonary Lesions Identified in Sheep and Goat Carcasses in Trinidad and Tobago. 2020; National Health Research Conference 2-Day Virtual Conference "Advancing Health Research in Trinidad & Tobago". November 19 & 20, 2020. Poster presentation

CENTRE FOR MEDICAL SCIENCES EDUCATION (CMSE)

D Dwarica, **B Sa**, T Leotaud, S Hunte, MA Ivey, V Victor, DT Simeon, A Majumder, T Seemungal. Acceptance and Attitudes towards COVID-19 Vaccines among the Adult Population in Trinidad and Tobago, Trinidad & Tobago National Conference, 18th & 19th November 2021. (Virtual Conference).

B Sa, MAA Majumder, S Gupta, V Victor, F Yussef, K Singh, OP Adams, M H Campbell. Relationship of Parental Occupation with Self-Esteem, Emotional Intelligence, and Empathy among Students from Medical and Other Health Professions Programs. Presented at 65th Annual CARPHA Health Research Conference from 16th-19th June 2021. (Virtual Conference).

K Krishnamurthy, A Kumar, N Ojeh, A Scott, C Cave, S Gupta, J Bradford-King, **B Sa**, OP Adams, MH Campbell, MAA Majumder. COVID-19 vaccine acceptance among healthcare professionals of Queen Elizabeth Hospital, Barbados. Presented at 65th Annual CARPHA Health Research Conference from 16th-19th June 2021. (Virtual Conference).

B. Sa, D. Dwarica, T. Leotaud, S. Hunte, MA. Ivey, V. Victor, A. Majumder, DT. Simeon, T. Seemungal. Acceptance and Attitudes towards COVID-19 Vaccine among the Adult Population in Trinidad and Tobago. the COVID-19 Vaccine Preparedness Virtual Symposium – The Healthcare Worker Edition, 7th February 2021, Trinidad and Tobago.

S Sarkar, **B Sa**, K Singh, A Williams, U Gaur, A Bharatha, V Victor, MAA Majumder. Yoga: A panacea for managing stress among

medical and allied health professional students during COVID-19 pandemic! 8th Public Health Foundation Day of Bangladesh & Virtual International Scientific Conference, 8-10 December 2020.

Majumder MAA, Campbell M, **B Sa**. Khan K, et al. Assessing online readiness for learning and assessment of medical and allied health professional students during the COVID-19 pandemic: A multi-campus study. COVID 19 Bioethics Perspectives organised by Bioethics Society of English-speaking Caribbean, 25th October 2020. (Virtual Conference).

Sa B, Victor VM, Youssef F, Campbell M, Adams P Majumder MAA. Is there any difference between virtual and real-life empathy? A cross-sectional study among undergraduate students across five faculties in the UWI, Trinidad and Tobago. The Association for Medical Education in Europe (AMEE), to be held from 7th - 9th September 2020, Austria Centre Vienna. (Virtual Conference).

Other Publications

SCHOOL OF NURSING

Ocho, O.N., E. Wheeler, G. Tomblin Murphy, and J. Rigby (2021). Core competencies and challenges among Nurses transitioning into positions of leadership - A Caribbean perspective. *Leadership in Health Services*. 32(5) 493–500. IF:0.51

Ocho, O.N. and C. Archer Gift (2021). Perceptions of 'malesensitive' health services among men in Trinidad and Tobago. *Journal of Transcultural Nursing*. 32(5), 493–500. <https://doi.org/10.1177/1043659620968616> IF: 1.278

Ocho, O.N., B. Pieper, J. Pulcini and E. Wheeler (2020). Nursing Leadership in a Pandemic: Lessons Learned From COVID-19 – An Opinion. *World Council of Enterostomal Therapists Journal*. WCET® Journal. 40(3):43-46. DOI <https://doi.org/10.33235/wcet.40.3.43-46>. IF: Citations: 1

Publications & Conferences (cont'd)

Ocho, O.N., E. Wheeler, C. Sheppard, L. Caesar-Greasley, J. Rigby, G. Tomblin Murphy (2020). Nurses' preparation for transitioning into positions of leadership—A Caribbean perspective. *J Nurs Manag.* 28:1356–1363. <https://doi.org/10.1111/jonm.13089>. IF: 2.386 Citations: 1

Smith–Kwanzaa, C., K. Clarke, C. Ramlal, **R. Singh, O.N. Ocho** (2020). Factors contributing to Needle Stick Injuries Among New Registered Nurses at a Hospital in Trinidad. *Infection, Disease & Health.* (4):294-301. doi: 10.1016/j.idh.2020.06.003. Epub Aug 13. PMID: 32800598. IF: 0.537 Citations: 1

Ocho O.N. (2021). 'Deepening the Dialogue—Strengthening Domestic Violence Policy and Charting a Way Forward'. In: Bissessar A.M., Huggins C. (eds) *Gender and Domestic Violence in the Caribbean. Gender, Development and Social Change.* 257-272. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-73472-5_15

James Euin, A., M. Rollock, F. Olliviere-Andrews and O.N. Ocho (2021). 'Repositioning midwifery education in line with International Best Practices' in Contributions of Nursing and Midwifery professionals to Women's Health. Reports from the Region of the Americas. Pan American Health Organization. ISBN-978-92-75-12364-5.

Rollock, M., D. Lewis, **A. James Euin, F. Olliviere-Andrews and O.N. Ocho.** (2021). 'Experiences of TTAM in Child Birth Education classes' in Contributions of Nursing and Midwifery professionals to Women's Health. Reports from the Region of the Americas. Pan American Health Organization. ISBN-978-92-75-12364-5.

SCHOOL OF DENTISTRY

Hoyte T, Ali A, Bearn D. Prevalence of Bimaxillary Protrusion: A Systematic Review. *Open Journal of Epidemiology.* 2021;11:37-46. DOI: [10.4236/ojepi.2021.111004](https://doi.org/10.4236/ojepi.2021.111004)

Hoyte T, Kowlessar A, Henry K, Mahabir A, Ali A, Manwah T.

Psychological Impact and Coping Strategies of Dental Students during the COVID-19 Pandemic. A Cross-Sectional Survey. *Creative Education.* 2021; 12(8) :926-1938.

Hoyte T, Kowlessar A, Henry K, Mahabir A, Ali A. Factors affecting the Career and Speciality Preferences of Dental Students in Trinidad and Tobago. A Cross-Sectional Survey. *Creative Education.* 2021;12(8):1792-1804.

Kowlessar A, Henry K, Bisson, A, Hoyte T. Fusion of a Mandibular Third Molar and a Distomolar in a Trinidadian Child: Report of a Rare Case Diagnosed Using CBCT. *Open Journal of Stomatology.* 2021;11(8):271-277.

Rajakakse S, Giardino M, Kulasekara, H, Darveau, R, Chang A. An Ayurvedic Herbal Extract Inhibits *Streptococcus mutans* Biofilm Formation and Disrupts Preformed Biofilms in vitro. *Journal of traditional medicine & clinical naturopathy.* 2020, 9(3):291

Technical Reports

SCHOOL OF MEDICINE

Department of Para-Clinical Sciences

"Review of the Current Status of COVID-19 Vaccines" **Clement Y,** Alexander CM, Fernandes M, Giddings S, Hunte SA, Ignacio D, Ivey M, Jankie S, Monteil M, Onuoha P, Pooransingh S, Reid A, Sampson-Francis S. Submitted to Ministry of Health, Government of the Republic of Trinidad and Tobago, January 2021.

Abstracts and Posters

SCHOOL OF NURSING

L. Smith, **O.N. Ocho,** K. Wentzel, S. De Young, **V. Sealey-Tobias.**

Building nursing capacity in the Caribbean to improve outcomes in paediatric oncology. Poster presentation at 52nd Congress of SIOP- International Society of Paediatric Oncology, Ottawa, Canada, October 2020.

B. Sa, **V.M. Victor**, F. Youssef, M. Campbell, P. Adams, M.A.A Majumder. Is there any difference between virtual and real-life empathy? A cross-sectional study among undergraduate students across five faculties in the UWI, Trinidad and Tobago. The Association for Medical Education in Europe (AMEE), to be held from 7th - 9th September 2020, Austria Centre Vienna. (Accepted).

SCHOOL OF VETERINARY MEDICINE

A. Bally

Pythiosis: An Emerging Disease of Dogs in Trinidad and Tobago
The American College of Veterinary Pathologists Conference (online)
USA, October 2020.

A. Bally

Emerging and re-emerging infectious diseases in animals: A Veterinary Pathology perspective.
July 2nd 2021

L. Benjamin

Building research support for antimicrobial resistance-related decision-making in CARICOM states.
IVSA First Regional Symposium of the Americas
Virtual Symposium, April 2021

L.A. Benjamin.

Design of a cost-effective Geographic Information System for Surveillance of Yellow fever Virus on an Island State.
National Health Research Conference-Advancing health research in Trinidad and Tobago
UWI, St. Augustine, November 2020.

C. Oura.

Coronaviruses in Animals – Implications for the Current Pandemic.
Guyana Livestock Development Agency (GLDA)(online)
Guyana. August 2020

C. Oura.

One Health Conference with the theme 'Together we are stronger'.
Jamaica Veterinary Medicine Association online
Jamaica, November 2020.

C.Oura.

Intersections between COVID-19 pandemic, social justice, and equity.
St Georges University Virtual Public Health Conference: Relevance, Creativity and Innovation (online) Grenada, November 2020.

C. Oura.

Research to Policy and Covid-19: the importance of following an evidence base.
Planning Retreat of the Ministry of Tourism (online)
Jamaica, November 2020.

C. Oura.

A 'One Health' approach to wildlife / human zoonotic transmission risks"
Online Wildlife Symposium organised by the Centre for Biosecurity, with the theme "Urban and Rural Development, land use changes, human wildlife interactions and their impacts",
UWI, Mona, Jamaica, February 2021.

C. Oura.

Saving Planet Earth – lessons that need to be learned from the Covid-19 pandemic and more.
1st International Veterinary Students Association Regional Symposium for the Americas (online)
April 2021.

C Oura.

Teaching Caribbean professionals to lead change: Experiences, Successes and Challenges.
Planetary Health Online Conference(online)
April 2021.

C. Oura,

Global update on African Swine Fever.
CaribVET Annual Meeting / Symposium (online)
June 2021.

Publications & Conferences (cont'd)

A.C. Phillips Savage,

Aqua-Health in the Southern Caribbean. SeaVet Clinical Training 2021.

University of Florida,
Gainesville, Florida. June 22, 2021

R. Suepaul, P. Pow-Brown, S. Rajh, I. Pargass, A. Bally, L. Gyan, **K. Acevedo.**

Follicular thyroid carcinoma in an inbred family of mongrel dogs in Trinidad & Tobago.

The 2020 National Health Research Conference (online)
Trinidad, November 2020

I Pargass, A. Bally, R. Suepaul, K Acevedo.

First Reported Case of Rhinosporidium seeberi Infection in a Dog in the Caribbean Region.

The American College of Veterinary Pathologists Conference (online)
USA, October 2020

R. Suepaul

Disseminated phaeohyphomycosis in two dogs in Trinidad and the occurrence of Chagas disease in dogs in Trinidad

Emerging and Re-emerging Infectious Diseases in Animals; A Veterinary Pathology Perspective-(online)

UWI, St. Augustine, Trinidad and Tobago, July 2021.

R. Suepaul

Wildlife Health, Hunting and Zoonotic Disease Risk in the Caribbean

CBS Caribbean Wildlife Initiative Webinar/ Panel Discussion Part 2 (online)

UWI, St. Augustine, Trinidad and Tobago, February, 2021.

R. Suepaul, R. Charles, D. Stone, A. Dobson, J. Peterson.

First Report of bloodmeal sources of Trypanosoma cruzi-infected triatomine bugs in Trinidad

National Health Research Conference (Online)

Trinidad, November 2020.

A. Sookraj, **G. Brown, S. Rajh,** L. Gyan, **K. Frontera-Acevedo**

A case of Inclusion Body Disease in a Boa Constrictor from Trinidad and Tobago

ACVP Annual Virtual Conference (online)
USA, November, 2020

K. Frontera-Acevedo

Disseminated Acanthamoeba sp. infection in a dog in Trinidad and Tobago

Emerging and re-emerging infectious diseases in animals: A Veterinary Pathology Perspective (online)

UWI, St. Augustine, Trinidad and Tobago, July 2021.

R. Roopchand, A. Harnamji, D. Ramnarinesingh, R. Sharma, K. Georges, A. Persad, C. Sant.

The detection of tick-borne pathogens in goats in Trinidad and Tobago.

Undergraduate student research projects oral presentation

Students' Research Day, School of Veterinary Medicine, UWI, Trinidad, February 2021.

CENTRE FOR MEDICAL SCIENCES EDUCATION (CMSE)

A Ali, A Smith, A Wickham, B Johnston, B Stowe, B Cross, B Seenath, B Rajkumar, T Seemungal, **B Sa.** Impact of COVID-19 Pandemic on Medical Students' Clinical Training, Their Learning Behaviours, Perceived Stress and Performance as Future Medical Professionals. Trinidad & Tobago National Conference, 18 - 19 November 2021. (Virtual Conference).

MAA Majumder, D Cohall, N Ojeh, M Campbell, OP Adams, **B Sa,** K Khan, R Pierre, H Trotman-Edwards. Academic and technological readiness of medical and allied health professional students during COVID-19 pandemic: A multi-country study. Association for Medical Education in Europe (AMEE) 2021: Redefining Health Profession Education Together: 27-30 August 2021. (Virtual Conference).

FACULTY OF SCIENCE & TECHNOLOGY

Journal Publications

Department of Chemistry

D Dwarica, J Fernandes, H Ellis, M Dorset, M Ferguson, M Felix, K Foncette, S Dookie, **B Sa**. Knowledge, attitudes and practices of drivers towards road traffic regulations in Trinidad, West Indies, Presented at 65th Annual CARPHA Health Research Conference from 16-19 June 2021. (Virtual Conference).

D Dwarica, J Fernandes, H Ellis, M Dorset, M Ferguson, M Felix, K Foncette, S Dookie, **B Sa**. Knowledge, attitudes and practices of drivers towards road traffic regulations in Trinidad, West Indies, 2020-National Health Research Conference Advancing Health Research in Trinidad & Tobago on 19 - 20 November, 2020, Port of Spain, Trinidad and Tobago (Virtual Conference).

K Singh, S Sarkar, S Gupta, OP Adams, **B Sa**, MAA Majumder. Smartphones and the smart campus: Are medical students really smart? 2020 AACA/ HAPS Eastern Regional Virtual Meeting, October 3, 2020.

Sa B, Ealie C, Victor V, Youssef F, Campbell M, Majumder MAA. Exploring virtual empathy versus real-life empathy among undergraduate university students across five faculties. 2020-National Health Research Conference Advancing Health Research in Trinidad & Tobago, 19 - 20 November, 2020, Port of Spain, Trinidad and Tobago. (Virtual Conference).

Singh K. Gupta S, Sarkar S, Adams OP, Majumder MAA, **Sa B**. Smart Phone and Smart Campus: Are medical students really smart. Science and Technology Festival-2020 Theme: Gateway to a New Barbados from 5 - 7, March 2020.

Doornkamp, J. L.; James, N. A.; Ori, S.; **Bent, G.-A.** Ambient air levels and bus occupants' exposure to benzene, toluene, ethylbenzene, and xylenes (BTEX) while commuting in Paramaribo, Suriname – A pilot study. Case Studies in Chemical and Environmental Engineering, **2021**, 100112. <https://doi.org/10.1016/j.cscee.2021.100112>.

Augustine, D.A.; **Bent, G.-A.**; Nelson, P.N. Mechanistic evidence for the effect of sulphur-based additive: methionine, on acrylamide reduction. Food Additives & Contaminants: Part A. **2021**. <https://doi.org/10.1080/19440049.2021.1925166>.

Clarke, K.; Porter, R.; **Facey, P.**; Thoms-Rodriguez, C. "Chemical composition and biological activities of Pimenta richardii." Flavour Fragr. J. **2021**, 36, 272-279.

Kumar, A.; Kurbah, S. D.; Syiemlieh, I.; Dhanpat, S. A.; Borthakur, R.; Lal R. A. (2021) Synthesis, Characterization, Reactivity and Catalytic Studies of Heterobimetallic Vanadium(V) Complexes Containing Hydrazone Ligands, Inorganica Chimica Acta, 515, 120068 (Elsevier) (Impact factor: 2.433). [Citations:] <https://doi.org/10.1016/j.ica.2020.120068>

Subratti, A., **L. J. Lalgee, N. K. Jalsa**. (2021) Synthesis and interfacial properties of glyco-lipophosphoramidates. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 611: 125867

Subratti, A., A. Ramkissoon, **L. J. Lalgee, N.K. Jalsa** (2021) Synthesis and evaluation of the antibiotic-adjuvant activity of carbohydrate-based phosphoramidate derivatives. Carbohydrate Research. 500: 108216.

Publications & Conferences (cont'd)

Subratti, A., J. L. Vidal, **L. J. Lalgee**, F. M. Kerton, N.K. Jalsa (2021) Preparation and characterization of biochar derived from the fruit seed of *Cedrela odorata* L and evaluation of its adsorption capacity with methylene blue. *Sustainable Chemistry and Pharmacy*. 21: 100421.

Ming, S.-A., **Taylor, R.A.**, McNaughten, P.D., Lewis, D.J., Leontiadou, M.A., O'Brien, P., Tunable structural and optical properties of CuInS₂ colloidal quantum dots as photovoltaic absorbers, *RSC Advances*, (2021), 11, 21351. (*corresponding author)

Conference Presentations by Graduate Students:

Hereunder: presenting author underlined.

Dr Grace-Anne Bent's Group:

Augustine, D.A.; **Bent, G.-A.**; Nelson, P.N. Mechanistic evidence for the effect of sulphur-based additive: methionine, on acrylamide reduction. First Commonwealth Chemistry Congress: Partnership for the Goals. May 18 – 20, 2021 (online).

Dr Richard Taylor's Group

Chandoo, S., **Taylor, R.A.**, The investigation of Optoelectronic Properties of Semiconducting 2-D Ternary Copper based Transition Metal Dichalcogenides (TMDs) for photovoltaic applications, 1st Commonwealth Chemistry Congress, Virtual Conference, May 2021. (Poster)

Min, Z., Singh-Wilmot, M.A., **Taylor, R.A.**, Hossack, C., Excited state Intra-molecular Proton Transfer (ESIPT) and Intra-molecular Energy Transfer (IMET) in a Novel Lanthanide Metal Organic Framework (Ln MOF) with Photoluminescence Sensing Capabilities, 1st Commonwealth Chemistry Congress, Virtual Conference, May 2021. (Oral)

Weston, K., **Taylor, R.A.**, Tunable Optoelectronic Properties of Doped and Undoped Copper Antimony Sulphide Thin Films and Nanoparticles for Low-Cost Photovoltaics, 1st Commonwealth Chemistry Congress, Virtual Conference, May 2021. (Poster)

Weston, K., **Taylor, R.A.**, Tunable Optoelectronic Properties of Doped, Undoped and Heterostructured Copper Antimony Sulphide Thin Films and Nanoparticles for Low Cost Photovoltaics, Royal Society – DFID Conference – Chemistry to Functional Materials (Virtual), April 2021. (Oral)

Ming, S.-K., **Taylor, R.A.**, McNaughten, P.D., Lewis, D.J., O'Brien, P., Wurtzite to Chalcopyrite Phase Transformation and Optical Properties of Ag-doped CuInS₂ Colloidal Quantum Dots, Royal Society – DFID Conference – Chemistry to Functional Materials (Virtual), April 2021. (Oral)

Ming, S.-K., **Taylor, R.A.**, McNaughten, P.D., Lewis, D.J., O'Brien, P., Challenges and Prospects of Electronic Doping of Colloidal Quantum Dots, 1st Commonwealth Chemistry Posters, Virtual Symposium, August 2020. (Poster)

Min, Z., Singh-Wilmot, M.A., **Taylor, R.A.**, Hossack, C., Excited state Intra-molecular Proton Transfer (ESIPT) and Intra-molecular Energy Transfer (IMET) in a Novel Lanthanide Metal Organic Framework (Ln MOF) with Photoluminescence Sensing Capabilities. 1st Commonwealth Chemistry Posters, Virtual Symposium, August 2020. (Best Poster)

Weston, K., **Taylor, R.A.**, Tunable Optoelectronic Properties of Doped and Undoped Copper Antimony Sulphide Thin Films and Nanoparticles for Low-Cost Photovoltaics, 1st Commonwealth Chemistry Posters, Virtual Symposium, August 2020. (Poster)

Department of Computing & Information Technology

Khan, K., Ramsahai E. (2021) Maintaining proper health records improves machine learning predictions for novel 2019-nCoV. *BMC Med Inform Decis Mak Springer Nature* 21, 172. <https://doi.org/10.1186/s12911-021-01537-3>

Khan, K., **Goodridge W.** (2020) QoE evaluation of dynamic adaptive streaming over HTTP (DASH) with promising transport layer protocols. *CCF Trans. Netw. Springer Nature* 3, 245–260. <https://doi.org/10.1007/s42045-020-00047-6>

Khan, K., and Goodridge W. (2020) "Rate oscillation breaks in HTTP on-off distributions: a DASH framework." *International Journal of Autonomous and Adaptive Communications Systems*, Inderscience Publishers 13, no. 3: 273-296. <https://doi.org/10.1504/IJAACS.2020.110742>

Khan, K., and Goodridge W. (2021) "QoE Evaluation of Legacy TCP Variants over DASH," *International Journal of Advanced Networking and Applications* 12, no. 05: 4656-4667.

Khan, K., Goodridge, W. (2020) "QoE evaluation of dynamic adaptive streaming over HTTP (DASH) with promising transport layer protocols". CCF Trans. Netw. 3, 245-260. <https://doi.org/10.1007/s42045-020-00047-6>

Jaglal, K. and **Hosein M.** (2021) Presence Detection with Bluetooth Low Energy: A Review and Experiment. *International Journal of Computer (IJC)* ISSN 2307-4523, 40(1), 1-13.

Aqui, J. and **Hosein M.** (2020) An Approach to Establishing Simultaneous Server-Side Connections for NFC/Bluetooth Enabled Quiz Management Systems. *Global Journal of Computer Science and Technology, Hardware and Computation*. Volume 20 Issue 16, 2020:1-11.

Aqui, J. and **Hosein M.** (2020) Investigating Simultaneous Wireless Connections for a Quiz Management System-A Case Study. *Global Journal of Computer Science and Technology, Network, Web & Security*. Volume 20 Issue 4, 2020:1-12.

Manohar, K. and **Kieu T.D.** (2021) "A counter-embedding IPVO based reversible data hiding technique", *Multimedia Tools and Applications*, Vol. 80, No. 4, 5873-5900.

Manohar, K. and **Kieu T.D.** (2020) "A Strategy for the Linear Time Implementation for the SMVQ Algorithm", *IETE Technical Review*,

P. Hosein, S. Ramoudith and I. Rahaman: On the Optimal Allocation of Resources for a Marketing Campaign International Conference on Operations Research and Enterprise Systems, Vienna, Austria, Feb 2021

I. Rahaman I. and **P. Hosein**. Perturbing Internal Opinions to Achieve Lower Polarization International Conference on Computational Data and Social Networks, Dallas, USA, Dec 2020

I. Rahaman I. and **P. Hosein**. Extending DeGroot Opinion Formation for Signed Graphs and Minimising Polarization. International Conference on Complex Networks and their Applications, Madrid, Spain Dec, 2020

R. Ramjattan, N. Hosein, **P. Hosein** and A. Knoesen. Dynamic Group Formation with Suitability Constraints in large Social Networks IEEE International Conference on Technology Management, Operations and Decisions, Marrakech, Morocco, Nov 2020

N. Sharma N. and **P. Hosein**. A Comparison of Data-Driven and Traditional Approaches to Employee Performance Assessment International Conference on Intelligent Data Science Technologies and Applications, Valencia, Spain, Oct 2020

P. Hosein. On the Optimal Baseline Auto Insurance Premium KDD 2020 Workshop on Machine Learning in Finance San Diego, USA, Aug 2020

Hosein G., **P. Hosein**, S. Bahadoorsingh, R. Martinez and C. Sharma (2020) Predicting Renewable Energy Investment Using Machine Learning *Energies* 2020, 13, 4494

Ramjattan R., D. Ramsook and **P. Hosein** (2021). Cybersecurity Threat Analysis for an Energy Rich, Small Island Developing State *West Indian Journal of Engineering*

Lawrence T., **P. Hosein** and I. Dialsingh (2021). An Influence Model for Influence Maximization-Revenue Optimization Springer *International Journal of Data Science and Analytics*

Publications & Conferences (cont'd)

Sekhon R., **P. Hosein** and S. Pack (2021). User Remuneration under Congestion: A Dynamic and Fair Pricing Strategy for Wireless Networks. IEEE Transactions on Vehicular Technology

Mohammed PS., Coy A. (2021) Culturally Aware Intelligent Learning Environments for Resource-Poor Countries. In: Rauterberg M. (eds) Culture and Computing. Design Thinking and Cultural Computing. HCII 2021. Lecture Notes in Computer Science, vol 12795. Springer, Cham. https://doi.org/10.1007/978-3-030-77431-8_28

Maharaj-Pariagsingh L., **Mohammed PS.** (2021) DanceTutor: An ITS for Coaching Novice Ballet Dancers Using Pose Recognition of Whole-Body Movements. In: Roll I., McNamara D., Sosnovsky S., Luckin R., Dimitrova V. (eds) Artificial Intelligence in Education. AIED 2021. Lecture Notes in Computer Science, vol 12749. Springer, Cham. https://doi.org/10.1007/978-3-030-78270-2_47

Ramkissoon A.N., Mohammed S. & Goodridge W. (2021) "Determining an Optimal Data Classification Model for Credibility-Based Fake News Detection." Rev Socionetwork Strat 15, 347–380

Department of Mathematics & Statistics

Alexander, R., K. Rahaman, D.M.G. Comissiong. (2021) Creeping Micropolar Flow past a Porous Approximate Sphere. International Research Journal of Modernization in Engineering Technology and Science, 3(7), pp. 15-26. [Impact Factor 2020: Nil & Citations: 0].

Sooknanan, J., **D.M.G. Comissiong**, "Trending on Social Media - Integrating Social Media into Infectious Disease Dynamics", Bulletin of Mathematical Biology, 82: 86 (2020). <https://doi.org/10.1007/s11538-020-00757-4> [Impact Factor 2020: 1.758, Citations: 6].

Dass, T., S.R. Gunakala, D.M.G. Comissiong, "The combined effect of couple stresses, variable viscosity and velocity-slip on the lubrication of finite journal bearings", Ain Shams Engineering Journal, Vol. 11(2), pp. 501-518 (2020). [Impact Factor 2020: 3.180 & Citations: 3].

Job, V. M., **S. R. Gunakala.** (2021) Numerical Study on mixed convective flow of water-based magnetite nanofluid through a wavy channel containing porous blocks under the effect of an oscillating magnetic field. ZAMM Journal of Applied Mathematics and Mechanics/ Zeitschrift für Angewandte Mathematik und Mechanik. Wiley Publisher ISSN: 1521-4001. [Impact factor 2020: 1.603 & Citation-1]

Gunakala, S. R., V.M. Job, S. Sakhamuri, PVS Murthy, BV Chowdary. (2021) Numerical Study of Blood Perfusion and Nanoparticle Transport in Prostate and Muscle Tumorous during Intravenous Magnetic Hyperthermia. Alexandria Engineering Journal. Elsevier Publisher ISSN: 1110-0168. [Impact factor 2020- [3.732] & Citation-4]

Jean-Paul, P., **S.A. Wahid.** (2021) Unstructured and Semi-Structured Complex Numbers: A solution to division by zero. Journal of Pure and Applied Mathematics, 10(2): 49-61. [Impact factor 2020: Nil & Citation-0]

Kuo, W., D. Tweedle. (2021) Cyclicity for Drinfeld modules. Bulletin of the London Mathematical Society 53(5):1500-1519. <https://doi.org/10.1112/blms.12513>. [Impact factor 2020: 2.731 & Citation-1]

Kuo W., **D. Tweedle.** (2020) A prime analogue Erdős-Pomerance result for Drinfeld modules with arbitrary endomorphism rings. Proceedings of the American Mathematical Society. (148), no. 9, 3733 -- 3747. [Impact factor 2020: 1.016 & Citation-0]

Lawrence, T., **P. Hosein, I. Dialsingh.** (2021) An influence model for influence maximization-revenue optimization. International Journal of Data Science and Analytics 11(2):155-168. [Impact factor 2020: Nil & Citation-0]

Ali, N., S. Allj, A. Ali, A. Ali, C. Ali, J. Abraham, I. Abdool, A. Antoine, **I. Dialsingh**, R. Parasram, S. Pooransingh. (2020) Antibiotic Resistance in Trinidad: a population-based survey of adults. *Caribbean Medical Journal*. [Impact factor 2020: Nil & Citation-0]

Davis, G., N. Baboolal, **V. Tripathi**, R. Stewart. (2021) Health status risk factors and quality of life in 75-84-year-old individuals assessed for dementia using the short 10/66 dementia diagnostic schedule, *PeerJ* 9: e12040 : pp 1-21. DOI: 10.7717/peerj.12040. [Impact factor 2020: 2.98 & Citations – 0]

James, A., **V. Tripathi**. (2021) Time series data analysis and ARIMA modeling to forecast the short-term trajectory of the acceleration of fatalities in Brazil caused by the corona virus (COVID-19), *PeerJ* 9:e11748: pp 1-23. DOI: 10.7717/peerj.11748. [Impact factor 2020: 2.98 & Citations – 0]

Selby, L., **V. Tripathi**, S. Hariharan. (2021) Knowledge, Attitude and Practice (KAP) regarding the Novel Coronavirus Disease (COVID-19) post-lockdown in Trinidad and Tobago, *Social Work in Public Health*, 36(5) :558-576. [Impact factor 2020: 1.128 & Citations – 0]

Talukdar, D., M. Tripathi, **V. Tripathi**, S. Teelucksingh. (2021) Prevalence and associated factors of undiagnosed hypertension among women aged 15-49 years in India: An Analysis of National Family Health Survey-4 data. *Journal of Human Hypertension* 35(8):726-740. [Impact factor 2020: 3.012 & Citations – 1]

Forde, I., **V. Tripathi**. (2021) Determinants of neonatal, post-neonatal and child mortality in Afghanistan using frailty models. *Pediatric Research*. <https://doi.org/10.1038/s41390-021-01527-1>. [Impact factor 2020: 3.756 & Citations – 0]

Department of Physics

K S Surekha, B P Patil, Ranjit Kumar, **Davinder Pal Sharma** (2021), "Multiscale BSBL Compressed Sensing-Based ECG Signal Compression with Encoding for Telemedicine", *Biomedical Engineering: Applications, Basis and Communications*, World Scientific, Vol. 33, No. 5, 2150034, <https://doi.org/10.4015/S1016237221500344>. (Cite Score =1.1, IF = 0.7)

Prasad Kalane, Sarika Patil, B. P. Patil and **Davinder Pal Sharma** (2021), "Automatic Detection of COVID-19 Diseases using U-Net Architecture based Fully Convolutional Network", *Biomedical Signal Processing & Control*, Elsevier, Vol. 67, May 2021, 102518, <https://doi.org/10.1016/j.bspc.2021.102518>. (Cite Score = 7.0, IF = 3.88)

Vikas Khullar, Karuna Salgotra, Harjit Pal Singh and **Davinder Pal Sharma** (2021), "Deep Learning-Based Binary Classification of ADHD Using Resting State MR Images", *Augmented Human Research*, Springer, Vol. 6, No. 5, Pp. 1-9. <https://doi.org/10.1007/s41133-020-00042-y>

Sanjeev Kumar, Anshul Kumar Sharma, Manreet Kaur Sohal, **Davinder Pal Sharma**, A K Debnath, D K Aswal and Aman Mahajan (2020), "[Room Temperature Highly Sensitive Chlorine Sensor based on Reduced Graphene Oxide Anchored with Substituted Copper Phthalocyanine](https://doi.org/10.1016/j.snb.2020.128925)", *Sensors and Actuators B: Chemical*, Elsevier, Vol. 327, 128925. <https://doi.org/10.1016/j.snb.2020.128925>. (Cite Score = 14.0, IF = 7.46)

Mark Pannekens, Lisa Voskuhl, Sadjad Mohammadian, Daniel Köster, Arne Meier, John M. Köhne, Michelle Kulbatzki, Ali Akbari, **Shirin Haque**, and Rainer U. Meckenstock, "Microbial Degradation Rates of Natural Bitumen", *Environmental Science & Technology* 2021 55 (13), 8700-8708, DOI: 10.1021/acs.est.1c00596. (IF =9.03)

Chitan, A., Mylläri, A., and **Haque, S.** (2020). Relativistic Effects on Triple Black Holes: Burrau's Problem Revisited. *arXiv preprint arXiv:2011.03046*.

Publications & Conferences (cont'd)

Mohammed, S., Sundaram, V., & **Zyuzikov, N.** (2021). Effect of 150 kHz electromagnetic radiation on the development of polycystic ovaries induced by estradiol Valerate in Sprague Dawley rats. *Journal of Ovarian Research*, 14(1), 1-10. (IF = 4.2)

Joseph, A. T., & Andrews, R. (2021). Enhanced two-photon absorption of frequency-entangled NOON states. *Journal of Optics*. (IF = 2.52)

Wyke, E., Aiyejina, A., & **Andrews, R.** (2020). Quantum excitation transfer, entanglement, and coherence in a trimer of two-level systems at finite temperature. *Physical Review A*, 101(6), 062101. (IF = 2.78)

Wyke, E., Aiyejina, A., & **Andrews, R.** (2020, September). The Effect of Coupling Disorder on the Transfer Efficiency in the LH1-RC Photosynthetic Unit. In *Frontiers in Optics* (pp. JM6B-24). Optical Society of America.

Beharry, S.L., Gabriels, D., Lobo, D., Ramsewak, D., & **Clarke, R. M.** (2021). Use of the SWAT model for estimating reservoir volume in the Upper Navet watershed in Trinidad. *SN Applied Sciences*, 3(2), 1-13.

Chadee, A. A., **Chadee, X. T.**, Mwasha, A., & Martin, H. H. (2021). Implications of 'Lock-in' on Public Sector Project Management in a Small Island Development State. *Buildings*, 11(5), 198. (IF=2.65)

Chadee, A. A., Ray, I., & **Chadee, X. T.** (2021). Systemic Issues Influencing Technical Certainty in Social Housing Programmes in a Small Island Developing State. *Buildings*, 11(2), 65. (IF=2.65)

Journal Publications & Books

Department of Life Sciences

Ramroach S, Dhanoo A, **Cockburn B**, Joshi A. Can non-invasive features including limited joint mobility be used to predict glucose control? *BMJ Innovations* 2021;7:26-32.

Tuckett, Q., **Deacon, A.E.** Fraser, D.F., Lyons, T., Lawson, K., and Hill, J. (2021) Unstable intraguild predation causes establishment failure of a globally invasive species. *Ecology*

Chraibi, E., Arnold, H., Luque, S., **Deacon, A.E.**, Magurran, A.E. Feret, J. (2021) Applying a remote sensing approach to understand diversity patterns during tropical secondary forest succession *Remote Sensing*

Fontrodona-Eslava, A., **Deacon, A.E.**, **Ramnarine, I.R.** and Magurran, A.E. (2021) Numerical abundance and biomass reveal different temporal trends of functional diversity change in tropical fish assemblages. *Journal of Fish Biology*

Arnold, H., **Deacon, A.E.**, **Hulme, M.** Sansom, A., Jaggernauth, D. and Magurran, A.E. (2021). Contrasting trends in biodiversity of birds and trees during succession following cocoa plantation abandonment. *Journal of Applied Ecology*

White, S.A. and **Deacon, A.E.** (2020). Where one species leads, another follows: interspecies processions in tropical caterpillars. *Ecology* 102(3) ecy.3249

Marley, G.S., **Deacon, A.E.**, Phillip, D.A.T. and Lawrence, A.J. (2020). Effects of a no-take reserve on mangrove fish assemblages: incorporating seascape connectivity. *Marine Ecology Progress Series* 649: 141-153

Holder, A.W.B., **W. Elibox** and P. Umaharan. 2021. A rapid leaf-disc vacuum-infiltration screening method for assessing resistance to bacterial leaf spot disease in anthurium. *Scientia Horticulturae* 288:110344.

Holder, A.W.B., **W. Elibox** and P. Umaharan. 2021. A first approach to develop a quantitative screening method to identify resistance to bacterial leaf spot disease caused by *Acidovorax anthurii* in anthurium. *European Journal of Plant Pathology* 160 (1): 147-159.

Collins, E. J., Rabone, M., Vanagt, T., Amon, J. D., **Gobin, J.**, and Huys, I. Strengthening biological collections: recommendations for a new agreement for biodiversity beyond national jurisdiction. *ICES Journal of Marine Science*, 2021, 78 (1), 305-314 doi:10.1093/ices-jms/fsaa227.

[Marine genetic resources in areas beyond national jurisdiction: Promoting marine scientific research and enabling equitable benefit sharing.](#) Alex D Rogers, Amy Baco, Elva Escobar-Briones, Duncan Currie, Kristina Gjerde, **Judith Gobin**, Marcel Jaspars, Lisa Levin, Katrin Linse, Muriel Rabone, Eva Ramirez-Llodra, Javier Sellanes, Timothy M Shank, Kerry Sink, Paul VR Snelgrove, Michelle L Taylor, Daniel Wagner, Harriet Harden-Davies. *Frontiers in Marine Science* 8, 600, 2021.

[Marine invertebrates.](#) Lis Lindal Jørgensen, Christos Arvanitidis, Silvana NR Birchenough, Malcolm R Clark, Igor Cristino Silva Cruz, Marina Cunha, Alan Deidun, **Judith Gobin**, Maruf Hossain, Ana De Jesus, Carmen Mifsud, Khac Bat Nguyen, Chul Park, Rachel Przeslawski, Jake Rice, Lennert Schepers, Paul Snelgrove, Natalia Strelkova, Leen Vandepitte. Second World Oceans Assessment. United Nations Publication. 2021.

Cruz-Motta, Juan J, Miloslavich, Patricia, Guerra-Castro, Edlin, Hernández-Agreda, Herrera,C, Barros, Franciso, Navarrete, A Sergio, Sepúlveda, D Roger, Glasby, M Tim, Bigatti, Gregorio, Calle-Cardenas, Maritza, Carneiro, B. M Pedro, Carranza, Alvar, Flores, A.V. Augusto, Gil-Kodaka, Patricia, **Gobin, Judith**, Gutiérrez, L Jorge, Klein, Eduardo, Krull, Marcos, Lazarus, F Juan, Londoño-Cruz, Edgardo, Lotufo, Tito, Macaya, C Erasmo, Mora, Camilo, Mora, Elba, Palomo, Gabriela, Palomo, Parrague, Mirtala, Pellizzari, Franciane, Retamales, Roberto, Rocha, M Rosana, Romero Leonardo. *Journal of Biogeography*. Latitudinal patterns of species diversity on South American rocky shores: Local processes lead to contrasting trends in regional and local species diversity. 2020, 00:1-14. DOI:10.1111/JBI.13869. 2020.

Lewis, VR, **Farrell, AD**, Umaharan, P, & Lennon, AM. 2021. Genetic variation in high light responses of *Theobroma cacao* L. accessions. *Heliyon*, 7(6), e07404.

Mphande, W, **Farrell, AD**, Grove, IG, Vickers, LH, & Kettlewell, PS. 2021. Yield improvement by antitranspirant application in droughted wheat is associated with reduced endogenous abscisic acid concentration. *Agricultural Water Management*, 244, 106528.

Arneaud L.L., **Farrell A.D. Oatham M.P.** 2021. Do arboreal termite nests increase mortality in *Mauritia flexuosa* L. f. (Arecaceae) during wildfires? *Neotropical Biodiversity*, 7:1, 86-90, DOI: 10.1080/23766808.2021.1899550

Halfhide T, Rostant L, Briggs G. 2021. Integrating GPS technology and Gaming as tools for Improving Spatial Intelligence and Database Development. Article # In: McMahon K, editor. *Advances in biology laboratory education*. Volume 41.

Halfhide, T., & Boodoo, M. (2020). Microalgal Harvesting considering Moringa and Watermelon Seeds as Natural Flocculants. *Farm and Business-The Journal of the Caribbean Agro-Economic Society*, 12(533-2020-1803), 20-26.

Badal K, Ali R, Warner WA, Maniam A, Carrington A, Foster JE, **Haraksingh R.** 2021. Factors associated with breast cancer recurrence and survival at Sangre Grande Hospital, Trinidad. *Cancer Causes Control*. 2021 Jul;32(7):763-772. doi: 10.1007/s10552-021-01427-z. Epub 2021 Apr 9.

Stervander, M., Hansson, B., Olsson, U., **Hulme, M.F.**, Ottosson, U. and Alström, P. (2020) Molecular Species Delimitation of Larks (Aves: Alaudidae), and Integrative Taxonomy of the Genus *Calandrella*, with the Description of a Range-Restricted African Relic Taxon. *Diversity* 12 (11), 428.

Hulme, M.F., Sanderson, F.J. and Vickery, J.A. (2020) Impacts of wildlife on tropical agro-forestry crops, and the implications for international conservation initiatives. *International Journal of Pest Management* 66 (1), 89-98 DOI: 10.1080/09670874.2018.1538545.

Publications & Conferences (cont'd)

Buchanan, G.M., Mallord, J.W., Orsman, C.J., Roberts, J.T., Boafo, K., Skeen, R.Q., Whytock, R.C., **Hulme, M.F.**, Guilain, T., Segniabeto, G.H. and Assou, D. (2020). Changes in the area of optimal tree cover of a declining AfroPalaeartic migrant across the species' wintering range. *Ibis* 162 (1),175-168

Ramkissoon, A., Seepersaud, M., Maxwell, A., **Jayaraj, J. and Ramsuhag, A.** 2020. Isolation and Antibacterial Activity of Indole Alkaloids from *Pseudomonas aeruginosa* UWI-1. *Molecules* 25, 3744; DOI:10.3390/molecules25163744 (MDPI).

Mohansingh, R. and **Khan, A.** 2020. Impact of weather parameters on *Raoiella indica* Hirst (Acari:Tenuipalpidae) on *Cocos nucifera* L. *Pest Management in Horticultural Ecosystems* 26(1): 123-132

Lawrence, S. and **Khan, A.** 2020. Oxygen consumption by *Ancylostomia stercorea* Zeller (Lepidoptera: Pyralidae) larvae: effect of temperature and body weight. *Insect Environment* 23: 8-14.

Lennon AM, Lewis VR, **Farrell AD**, Umaharan P. 2021 Photochemical responses to light in sun and shade leaves of *Theobroma cacao* (West African Amelonado) *Scientia Horticulturae* 276: 109747

Lewis C, **Lennon AM**, Eudoxie G, Sivapatham P, Umaharan P 2021 Plant metal concentrations in *Theobroma cacao* as affected by soil metal availability in different soil types. *Chemosphere* 262: 127749

Winter, N., Stewart, A., Igiède, J., Wiltshire, R.M., Hapairai, L.K., James, L.D., **Mohammed, A.**, Severson, D.W., Duman-Scheel, M., 2021. [Assessment of Trinidad community stakeholder perspectives on the use of yeast interfering RNA-baited ovitraps for biorational control of *Aedes* mosquitoes](#). *PLOS ONE* 16 (6), e0252997

Maharaj D., Mohammed T., **Mohammed A.**, Addison L. 2021. Enhanced Digestion of Complex Cosmetic Matrices for Analysis of As, Hg, Cd, Cr, Ni, and Pb Using Triton X-100. *MethodsX* 8 (1) IF 2019= 1.546 (Role in study: Co-PI)

Stewart ATM, Winter N, Igiède J, Hapairai LK, James LD, Feng RS, **Mohammed A.**, Severson DW., Duman-Scheel M., 2020. Community acceptance of yeast interfering RNA larvicide technology for control of *Aedes* mosquitoes in Trinidad. *PLoS ONE* 15(8): e0237675. IF 2019= 2.74 (Role in study: Co-PI)

Mohammed T, Dial D, Maharaj D, Smith C., Persad N., Mohammed S, **Mohammed A.**, 2020. Heavy metals in children's toys and baby items commonly sold in Trinidad and Tobago. *Journal of environmental chemistry and ecotoxicology* 12 (1), 59-64

Currey B, **Oatham M.P.**, Brookshire E.N.J. 2021. Negative trait-based association between abundance of nitrogen-fixing trees and long-term tropical forest biomass accumulation. *J. Ecol.* 2021;109:966–974. <https://doi.org/10.1111/1365-2745.13524>

Gräfe, S.; Eckelmann, C.-M.; Playfair, **M.**; **Oatham, M.P.**; Pacheco, R.; Bremner, Q.; Köhl, M. 2020. Future crop tree release treatments in neotropical forests—An empirical study on the sensitivity of the economic profitability. *For. Policy Econ.* 121, 102329

M.J. Hansen, A.I. Burns, C.T. Monk, C. Shutz, J.T. Lizier, **I.W. Ramnarine** (2021) The effect of predation risk on group behavior and information flow during repeated collective decisions. *Animal Behaviour* 173: 215-239.

L. Snijders, S. Krause, A.N. Tump, M. Breuker, C. Ortiz, S. Rizzi, **I.W. Ramnarine**, J. Krause (2021) Causal evidence for the adaptive benefits of social foraging in the wild. *Nature Communication Biology*

A.W. Szopa-Comley, C. Duffield, **I.W. Ramnarine**, C.C. Ioannou (2020) Predatory behaviour as a personality trait in a wild fish population *Animal Behaviour* 170, 51-64

P.J.C. Chuard, J.W.A. Grant, **I.W. Ramnarine**, G.E. Brown (2020) Exploring the threat-sensitive predator avoidance hypothesis on mate competition in two wild populations of Trinidadian guppies
Behavioural Processes **180**, 104225

A.S.I. Wade, **I.W. Ramnarine**, C.C. Ioannou (2020) The effect of group size on the speed of decision making depends on compromise and predation risk across populations in the guppy *Poecilia reticulata* *Behaviour* **157** (4): 173-1192

SN Rampersad (2021). Spatial pattern of genetic diversity in field populations of *Fusarium incarnatum* species complex. *Ecology and Evolution*, 11:9010–9020.

AC Ramdass, **SN Rampersad** (2021). Diversity and Oil Degradation Potential of Culturable Microbes Isolated from Chronically Contaminated Soils in Trinidad. *Microorganisms* 9 (6), 1167.

Chinnadurai, C., Kollam, M., **Ramsubhag, A., & Jayaraman, J.** (2021). Genome characterization of zucchini yellow mosaic virus infecting cucurbits reveals the presence of a new genotype in Trinidad and Tobago in the Caribbean region. *Archives of Virology*, 166(6), 1661-1669.

Ali, O., **Ramsubhag, A., & Jayaraman, J.** (2021). Biostimulant Properties of Seaweed Extracts in Plants: Implications towards Sustainable Crop Production. *Plants*, 10(3), 531.

Ali, O., **Ramsubhag, A., & Jayaraman, J.** (2021). Phytoelicitor activity of *Sargassum vulgare* and *Acanthophora spicifera* extracts and their prospects for use in vegetable crops for sustainable crop production. *Journal of Applied Phycology*, 33(1), 639-651.

Dookie, M., Ali, O., **Ramsubhag, A., & Jayaraman, J.** (2021). Flowering gene regulation in tomato plants treated with brown seaweed extracts. *Scientia Horticulturae*, 276, 109715.

Bridgemohan, R.S., Bachoon, D.S., Wang, Y., Bridgemohan, P., Mutiti, C. and **Ramsubhag, A.**, (2020). Identifying the primary sources of fecal contamination along the beaches and rivers of Trinidad. *Journal of Water and Health*, 18(2), pp.229-238.

Rostant, L., Nelson, H., Devenish-Nelson, E., Beddoe, L.A., Nathai-Gyan, N., and Agard, J. 2021. Abundance of the exploited red-rumped agouti (*Dasyprocta leporina* Rodentia: Dasyproctidae) on the island of Trinidad. *Mammalia*.

Singh, D.S., Alkins-Koo, M., **Rostant, L.V.**, and **Mohammed, A.** 2021. Behavioural repertory of juveniles of the freshwater crab *Poppiana dentata* (Randall 1840) under laboratory conditions. *Ethology Ecology and Evolution*.

Singh, D.S., Alkins-Koo, M., **Rostant, L.V.** and **Mohammed, A.** 2021. Baseline growth of the Trinidad freshwater crab *Poppiana dentata* (Randall, 1840) under laboratory conditions. *Revista Brasileira de Biologia or Brazilian Journal of Biology* 81 (2), 377-386

Singh, D., Alkins-Koo, M., **Rostant, L., Mohammed, A.**, 2021. [Sublethal effects of malathion insecticide on growth of the freshwater crab *Poppiana dentata* \(Randall, 1840\) \(Decapoda: Trichodactylidae\)](#). Nauplius 29

St. Martin, C., **Rouse-Miller, J.** Thomas, G. and Vilpigue, P. (2020). Compost and Compost Tea Microbiology: The “-Omics” Era. Chapter 1 pp 3-30. In *Biology of Compost, Soil Biology* 58, (eds) Mukesh K. Meghvansi and Ajit Varma. Springer Nature Switzerland AG 202010.1007/978-3-030-39173-7_1.

Thomas-Barry, G., St. Martin, CCG., Lynch, MDJ., **Ramsubhag, A., Rouse-Miller, J.**, and Charles, TC. 2021. Driving factors influencing the rhizobacteriome community structure of plants adapted to multiple climatic stressors in edaphic savannas. *Science of The Total Environment*, Volume 769, <https://doi.org/10.1016/j.scitotenv.2021.145214>. (Impact factor 6.5; Citations – 1)

Publications & Conferences (cont'd)

PhD and MPhil Theses

Department of Computing & Information Technology

Kris Manohar, "Reversible Data Hiding Techniques in the VQ-Compressed and Spatial Domains." Submitted 17th September 2020.

Journal Abstracts & Posters

Department of Mathematics & Statistics

M. Alexander, **S. Gunakala** and V. Job Mathematical Model of MHD Flow and Heat Transfer between a Solid rotating and Stationary Permeable Disk. 86th Annual Conference of the Indian Mathematical Society – An International Meet, VIT Vellore (Online Conference) India. Dec 17 – 20, 2020.

S. Hoosaney, I. Juman. S. Koon Koon, S. Kubairsingh, S. Manwah, S. Mohammed, S. Rampersad, **I. Dialsingh**, S. Pooransingh, COVID-19: Knowledge, Attitudes and Practices of Mask Use Among Students of the University of the West Indies, National Health Research Conference. Trinidad and Tobago 2021

Books & Book Chapters

Department of Mathematics & Statistics

Mohammed, H., R. Lakhan, D.M.G. Comissiong, "Mathematics in Motion: A Model for the Ma Lin Ghost Serve". In: Ao SI., Gelman L., Kim H.K. (Eds) Transactions on Engineering Technologies. Springer, Singapore. Pp. 51-66 (2021). https://doi.org/10.1007/978-981-15-8273-8_5

Reviews

Department of Computing & Information Technology

K. Khan: Reviewer, March 2021 International Conference on Modeling, Simulation and Optimization: Technologies and Engineering Applications, MSOTEA2021 (Modeling, Simulation and Optimization: Technologies and Engineering Applications).

K. Khan: Reviewer, IEEE Communications Letters. Will-to-pay versus QoE: DASH-Aware Bandwidth Cutting for mobile video streaming. Apr 24, 2021.

K. Khan: Reviewer, Computers in Biology and Medicine. Breast Cancer Prediction using Feature Selection method based on Imperialist Competitive and Bat Algorithm integrated Machine Learning Algorithms. June 13, 2021.

K. Khan: Reviewer, Mathematical Biosciences and Engineering. GIS-based multi-criteria decision-making method for locating street-hail taxi stands in central activities zone (CAZ): a case study in Shenzhen, China. Apr 04, 2021.

K. Khan: Reviewer, Mathematical Biosciences and Engineering. A computational approach to solve the nonlinear biological prey-predator system. Difference Equations and Discrete Dynamical Systems: Theory and Applications. July 02, 2021.

N. Ramkissoon and **S. Mohammed**: An Experimental Evaluation of Data Classification Models for Credibility Based Fake News Detection. 2020 IEEE International Conference on Data Mining Workshops (ICDMW)

M. Hosein Reviewer, International Journal of Disability, Development and Education. 17th November, 2020

Conference Presentations

Department of Mathematics & Statistics

L. Osher, W WL Chan, TV Tan, **V. Tripathi**, H. Yuan, KWH Chiu.

The Role of ⁶⁸Ga-DOTA-SSA PET/CT in Impacting Management and Predicting PRRT Response for Patients with NETs: A Systematic Review and Meta-Analysis. 9th Joint Scientific Meeting of RCR & Hong Kong College of Radiologists and 29th Annual Scientific Meeting of HKCR (Virtual Meeting) to be held from 13 - 14 November 2021 (oral presentation)

L. Selby, **V. Tripathi**, S. Hariharan.
Knowledge, Attitude and Practice (KAP) towards the Novel Coronavirus (COVID-19) in Trinidad and Tobago. Paper presented at the Virtual Symposium: The UWI, STA COVID-19 Research - Evidence to inform a multi-disciplinary response to the pandemic, organised by the Faculty of Medical Sciences, The UWI-STA on 3 September 2020. (Live telecast on face-book UWI TV). (2020)

Conference Presentations by Graduate Students

R. Singh and I. Dialsingh
Determining an Enhanced Forecasting Model for Caribbean Premier League (CPL) T20 Cricket. American Statistical Association, Joint Statistical Meetings Contributed Paper. 2021

R. Singh and I. Dialsingh
Prediction and Performance: Applications of Statistics in Sports. American Statistical Association, Joint Statistical Meetings Contributed Paper. (2020)

S. Cedeno and I. Dialsingh
A Modified Sam-T Test Statistic for Differential Expression. American Statistical Association, Joint Statistical Meetings Contributed Paper. (2020)

Department of Physics

Ariel Chitan, Aleksandr Mylläri and **Shirin Haque** Symbolic Sequences in the Analysis of Trajectories of Triple Black Holes, Polynomial Computer Algebra,

Euler International Mathematical Institute, St. Petersburg, RUSSIA
April 19-24, 2021,

Davinder Pal Sharma and Jesse Ramkhalawan (2021)

Development of a Non-Invasive Glucose Monitoring System using Raspberry Pi and 650 nm Red Light Laser", 31st Anniversary World Congress on Biosensors – Online, (Organized and sponsored by **Elsevier/ Biosensors & Bioelectronics**), Abstract Reference Number: BIOS2021_1622. 26-29 July, 2021

Wyke, E., Aiyejina, A., & **Andrews, R.** (2020). The Effect of Coupling Disorder on the Transfer Efficiency in the LH1-RC Photosynthetic Unit, *Frontiers in Optics 2020*, Washington, DC United States
14–17 September 2020, Joint Poster Session IB (JM6B)

Conference Papers & Proceedings

Department of Life Sciences

Ramdass A.C. and **Rampersad S.N.** Molecular Signatures of *Janthinobacterium lividum* in Contaminated Soil from Trinidad Support High Potential for Crude Oil Metabolism (Part 2). Poster presented at: Annual Genomics of Energy & Environment Meeting; 2021 Aug 30-Sept 1; Berkeley, CA.

Department of Mathematics & Statistics

A. Sankar, S. Rao Gunakala and D. Comissiong
A Numerical Study of Oxygen Transfer from Blood in Permeable Microcirculation to Surrounding Tissue in the Presence of a Magnetic Field.

25th International Congress of Theoretical and Applied Mechanics
Milano- Virtual, 22-27 August 2021

H. Mohammed, R. Lakhan and **D.M.G. Comissiong.**
Mathematics in Motion: A Model for the Ma Lin Ghost Serve". In: Ao SL, Gelman L., Kim H.K. (Eds) *Transactions on Engineering Technologies*. Springer, Singapore. Pp. 51-66 (2021). https://doi.org/10.1007/978-981-15-8273-8_5

Publications & Conferences (cont'd)

FACULTY OF SOCIAL SCIENCES

Journal Publications

Department of Behavioural Sciences

Baek, H., C. Na-Yeun, **R. Seepersad**. (2021) The role of job stress and burnout on health-related problems in the Trinidad and Tobago police service. *Policing: An International Journal*, 44:2, pp. 246-260. <https://doi.org/10.1108/PIJPSM-11-2019-0177>

Davis-Frederick, F. (2020) Prevalence of Anxiety in an Outpatient Clinic sample of People with Type 2 Diabetes in Trinidad. *Clinical Journal of Diabetes Care and Control*

Gomes, S. (2020) Review of Jah Kingdom: Rastafarians, Tanzania, and Pan-Africanism in the Age of Decolonization, in *Caribbean Quarterly* 66:3, 449-451 (Book Review)

Huggins, C., A. Modeste-James, J. Rouse. (2020) Primary care physicians' identifying abuse of older adults in the small island state of Trinidad and Tobago. *The Journal of Adult Protection* 22:6, 253-268. DOI.10.1108/JAP-07-2020-0020.

Joseph-Edwards, A., **W. C. Wallace**. (2020) Suffering in Silence, Shame, Seclusion and Invisibility: Men as Victims of Female Perpetrated Domestic Violence in Trinidad and Tobago. *Journal of Family Issues*, 1:26.

Peters K., **B. Berkeley**. (2020) A phenomenological study of the experience of tribal stigma among documented male Venezuelan migrants in Trinidad. *Migration and Development*, 9:2. Routledge: Taylor and Francis Group. <https://doi.org/10.1080/21632324.2020.1809282>

Timcke, S., S. **Gomes**. (2020) Placemaking in the Transnational Caribbean: A Rastafari Community in Ethiopia. *Journal of Black Studies* 51:4, 368-385.

Wallace, W. C. (2020) Policing tourism: Findings from an evaluation of a tourism-oriented policing training program in the Caribbean. *International Journal for Crime, Justice and Social Democracy*, 9:3, 159-173.

Wallace, W. C. (2021) Book Review Men's Experiences of Violence in Intimate Relationships by Marianne Inéz Lien and Jørgen Lorentzen. *Partner Abuse*, 12:2, 238-241

Department of Economics

Alghalith, M. (2021) Pricing Options Under Stochastic Interest Rate and the Frasca-Farina Process: A Simple, Explicit Formula, *Annals of Financial Economics*, 16.

Alghalith, M. (2020). [Pricing the American options: A closed-form, simple formula, Physica A: Statistical Mechanics and its Applications](#), Elsevier, 548(C).

Alghalith M., W. Wong. (2020) Extension of Stein's Lemmas to General Functions and Distributions, *Advances in Decision Sciences*, Asia University, Taiwan, 24:4, 77-88.

Bailey H., M. Janssen, A. La Foucade, G. Boodraj, M. Wharton, P. Castillo. (2021) EQ-5D self-reported health in Barbados and Jamaica with EQ-5D-5L population norms for the English-speaking Caribbean. *Health and Quality of Life Outcomes*, 19.

Frasca M., A. Farina, **M. Alghalith**. (2021) Quantized noncommutative Riemann manifolds and stochastic processes: The theoretical foundations of the square root of Brownian motion. *Physica A: Statistical Mechanics and its Applications* (revised), 577, 126037.

Hosein R., R. Gookool, G. Saridakis. (2021) Trade Facilitation and Non-Energy Exports of Trinidad and Tobago. *Sustainability* 2021, 13: 5.

Hosein R., R. Gookool, G. Saridakis. (2020) An Assessment of the Impact of the CARIFORUM-EU EPA on CARIFORUM Exports to the EU (2000-2017). *The International Trade Journal*, Issue 6, 540-557.

Imarhiagbe B.O., D. Smallbone, G. Saridakis, R. Blackburn, **A. M. Mohammed**. (2021) Access to finance for SMEs in post-socialist countries: the Baltic States and the South Caucasus compared", *Journal of Small Business and Enterprise Development*, 28:5, 744 - 774.

La Foucade A., G. Davis, N. Baboolal, D. Bethelmie, C. Laptiste, H. Ali-Sisbane, K. Theodore. (2020) The Socio-economic Determinants of Multi-Morbidity Among the Elderly Population in Trinidad and Tobago. *PLoS One*, 15:9.

Papaioannou G., **A. M. Mohammed**, S. Despoudi, G. Saridakis, T. Papadopoulos. (2020) Adverse Economic Environment and Human Capital: Their Role on Supply Chain Collaboration. *International Journal of Information Management*, 52, Issue C.

Sanchez S., P. Teelucksingh, R. Ali, H. **Bailey**, G. Legall. (2021) Quality of Life and Health Status among those receiving Renal Replacement Therapy in Trinidad and Tobago. *International Journal of Nephrology and Renovascular Disease*. 14, 173-192.

Department of Management Studies

Balwant, P. T. (2021) Is there a bright side to destructive leadership? How Gordon Ramsay leads change in nightmare kitchens. *Journal of Leadership Studies*, jls.21723. <https://doi.org/10.1002/jls.2172>

Balwant, P. T., R. Mohammed, **R. Singh**. (2020) Training and development climate and administrative employees' productivity in higher education. *Journal of Applied Research in Higher Education*, <https://doi.org/10.1108/JARHE-08-2020-0268>

Balwant, P. T. (2020) Crisis leadership: Teaching external corporate communications via an experiential learning exercise. *Journal of Education for Business*, 1–8. <https://doi.org/10.1080/08832323.2020.1829526>

Balwant, P. (2020) Training and development of instructor-leadership: An instructional systems design approach. *Journal of Human Services: Training, Research, and Practice*, 61. <https://scholarworks.sfasu.edu/jhstrp/vol6/iss1/3>.

Balwant, P. T., K. Birdi, U. Stephan. (2020) The dimensionality and measurement of destructive instructor-leadership. *International Journal of Leadership in Education*, 1–23.

Michaud, J., E. Lvina, T. Lituchy, B. Galperin, B. J. Punnet, A. Taleb, C. Mukanzi, T. Senaji, V. Bagire, B. Puplampu, D. L. Ford, M. Acquaaah, E. Metwally, F. Appiah, A. Agyapong, L. Melyoki, O. Woodham, N. Knight, A. Corbin, R. Charles, R. **Singh, P. Balwant, J. Stephenson**, L. Williams, A. Alleyne. (2020) Development and Validation of the Leadership Effectiveness in Africa and the Diaspora (LEAD) Scale. *International Journal of Cross Cultural Management*, 20:3, 361-384. [Impact factor 1.34]

Pacheco, B. G., M. H. Pacheco. (2020) Digital Business Service Transformation of Caribbean Economies: A Path to Sustainability. *Small States & Territories*, 3:2, 413-432.

Rambocas, M., J. M. Mahabir, The effects of consumers' cultural sensitivity, ethnocentrism and demographical characteristics on attitudes towards luxury fashion brand in Trinidad and Tobago, *International Journal of Fashion Marketing and Management*, 25:4, 644-664.

Ramdeo, S., P. Balwant, N. Cowell, N. Persadie. (2020) A moderated mediation model of bullying, support, justice, and organizational outcomes. *International Journal of Employment Studies*, 281, 48. (ABS3: HRM and Employment Studies and ARC journal)

Ramkissoon-Babwah, N. (2021) A Business Model Canvas Assignment in the Context of Experiential Entrepreneurship Education, *The International Journal of Business and Management*, 9, Issue 5, 422-429.

Ramkissoon-Babwah N., S. Racha. (2020) Social Media Marketing In Trinidad and Tobago The SME Context, *Journal of Media Management & Entrepreneurship*, 2:2, 72-83.

Publications & Conferences (cont'd)

Department of Political Science

Roach, C. M. L., M. Sabharwal, R. Abraham, W. Charles-Soverall. (2021) Does the Public Service Motivation Model Hold in the Caribbean? *Review of Public Personnel Administration*. <https://doi.org/10.1177/0734371X21996042>

Books & Book Chapters

Department of Behavioural Sciences

Chadee, D., A. Kostic. (2021) Embracing Psychology Positively. In A. Kostic and D. Chadee (Ed.), *Positive Psychology: International Perspective*. Wiley-Blackwell, 2021.

Cobb-Roberts, D., **T. Esnard** (2020) (Ed). *Mentoring as Critically Engaged Praxis: Storying the Lives and Contributions of Black Women Administrators*. North Carolina: Information Age publishing

Cobb-Roberts, D., **T. Esnard** (2020) Mentoring as Critically Engaged Praxis: Storying the Lives and Contributions of Black Women Administrators. In D. Cobbs-Roberts and T. Esnard (Ed) *Mentoring as Critically Engaged Praxis: Storying the Lives and Contributions of Black Women Administrators*. North Carolina: Information Age publishing.

Cobb-Roberts, D., **T. Esnard** (2020) Leadership as Critical Praxis: The Case of African American Women Faculty. In D. Cobbs-Roberts and T. Esnard (Ed) *Mentoring as Critically Engaged Praxis: Storying the Lives and Contributions of Black Women Administrators*. North Carolina: Information Age publishing.

Cobb-Roberts, D., **T. Esnard** (2020) Taking Stock and Moving Forward: A Few Reflections. In D. Cobbs-Roberts and T. Esnard (Ed) *Mentoring as Critically Engaged Praxis: Storying the Lives and Contributions of Black Women Administrators*. North Carolina: Information Age publishing

Esnard, T. (2021) Tacking (un)Freedoms: The Challenge for Women Entrepreneurs in the Caribbean. In Maura Adams and James Cunningham, (Eds.), *Women and Global Entrepreneurship: Contextualizing Everyday Experiences*. London: Routledge.

Esnard, T., M. Knight. (2020) (Ed). *Mothering and Entrepreneurship: Global Perspectives, Identities, and Complexities*. Ontario: Demeter Press.

Esnard, T., M. Knight. (2020) Mothers as Entrepreneurs: Negotiating Work and Life Complexities in the Global Economy. In T. Esnard and M. Knight (Ed). *Mothering and Entrepreneurship: Global Perspectives, Identities, and Complexities*. Ontario: Demeter Press.

Esnard, T., M. Knight. (2020) Positionality, Work-Life Interface and Early Career Engagement: The Case of Entrepreneurial Mothers in Jamaica. In T. Esnard and M. Knight (Ed). *Mothering and Entrepreneurship: Global Perspectives, Identities, and Complexities*. Ontario: Demeter Press.

Esnard, T., M. Knight. (2020) Shifting the lens: The complexity of Space and Practice for Entrepreneurial Mothers. In T. Esnard and M. Knight (Ed). *Mothering and Entrepreneurship: Global Perspectives, Identities, and Complexities*. Ontario: Demeter Press.

Gomes, S., S. Timcke. (2021) The Decolonial Ends of Caribbean Ethnography: Notes on Dialectics, Imagination, and the State of Practice in Decolonial Perspectives on Entangled Inequalities: Europe and The Caribbean, Rhoda Reddock and Encarnación Gutiérrez Rodríguez (eds.). London: Anthem Press.

Kostic, A., **D. Chadee**, M. Pejičić. (2021) Embracing Psychology Positively. In A. Kostic and D. Chadee (Ed.), *Positive Psychology: International Perspective*. Wiley-Blackwell, 2021.

Kostic, A. & **Chadee, D.** (2021). Positive Psychology: An International Perspective. CA: Wiley. E-copy available from May/June 2021.

Marmolejo, L., **R. Seepersard**, D. Rudes, F. Taxman. (2021) Exploring Pretrial Detention and Pretrial Processes in five Caribbean Countries. In C.S. Scott-Hayward, J.E. Copp & S. Demuth (Eds.), *Handbook on Pretrial Justice*. New York: Routledge.

Mohammed, L., M. Thomas, **R. Seepersad**. (2020) Intimate Partner Violence: A Trinidad and Tobago Perspective. In Wendell Wallace (Ed.). *Caribbean Perspectives on Criminology and Criminal Justice (Volume 2)*. Westphalia Press. Washington DC. Chapter 8: 171-200.

Stephenson, J., N. Persadie, **A. Bissessar, T. Esnard**. (2020) Diversity, Equality, and Inclusion in Caribbean Organizations and Society: An Exploration of Work, Employment, Education, and the Law. NY: Palgrave MacMillan.

Wallace, W. C. (2020) Introduction: Caribbean Perspectives on Criminology and Criminal Justice: An Ever-Increasing Phenomenon. In: W. C. Wallace (Ed.). *Caribbean Perspectives on Criminology and Criminal Justice (Volume 2)* (pp. XXIX-XL). Westphalia Press: Washington DC, USA.

Wallace, W. C. (2020) Gangs, Gang Dynamics and Gender: Exploring Gangs in Trinidad and Tobago. In: Biko Agozino, Viviane Saleh-Hannah, Emmanuel Onyeozili, and Nontyatyambo Pearl Dastile, *The Routledge Handbook on Africana Criminologies* (pp. 187- 204). London & NY: Routledge.

Wallace, W. C., C. G. Bastaldo, **B. Berkeley**, A. Hamblin-Paul. (2020) An Exploration of Virtual Visitation as a complement to Physical Visitation for Foreign-National Prisoners in the Caribbean. In: W. C. Wallace (Ed.). *Caribbean Perspectives on Criminology and Criminal Justice (Volume 2)* (pp. 237-266). Westphalia Press: Washington DC, USA.

Department of Economics

Mohammed, A., V. Benson, G. Saridakis. (2020) Understanding the Relationship Between Cybercrime and Human Behavior Through Criminological Theories and Social Networking Sites. *Encyclopedia of Criminal Activities and the Deep Web*, ed. Mehdi Khosrow-Pour D.B.A., ISBN 9781522597162 (ebook). doi:10.4018/978-1-5225-9715-5.ch066, pages 979-989.

Department of Management Studies

Nathai-Balkissoon, M. (2021) *Lighting the Path: Leaning into a Hopeful Future as a Special Needs Parent*. Illinois: Burning Soul Press. E-book, Paperback and Hardcover. <https://www.amazon.com/Lighting-Path-Leaning-Hopeful-Special-ebook/dp/B0949N89C4>. 200 pp (paperback)

Ramdeo, S., R. Singh. (2020) Cyberbullying in the Workplace. In *Encyclopaedia of Criminal Activities and Dark Web*. (Book Chapter Classification, Exceeding 5,000 words) Chapter 47, pp. 686-698. <https://www.igi-global.com/chapter/cyberbullying-in-the-workplace/248077>

Stephenson, J.H., N. Persadie, **A. Bissessar, T. Esnard**. (2020) Diversity, equality and inclusion in the Caribbean: An exploration of work, employment, society and the law. New York, USA: Palgrave MacMillan.

Stephenson, J. H. (2021) Efficacy of anti-discrimination legislation – The case of autism. In A. Hurley-Hanson and C. Giannantonio (Eds.) *Research on Autism in the Workplace and Generation A*. Yorkshire, UK: Emerald Publishing.

Stephenson, J.H. (2020) Domestic violence in the Caribbean – Are our solutions effective? In **A. Bissessar** and **C. Huggins** (Eds.) *Gender and Domestic Violence in the Caribbean* (pp. 116-131). New York, USA: Palgrave MacMillan.

Publications & Conferences (cont'd)

Department of Political Science

Roach, C. M. L., S. Upoma, M. Sabharwal, H. Renderos. (2021) Chapter 19 Human Resource Reforms in South Asia, the Caribbean, Latin America, and the United States. *Handbook of Public Administration 4th Edition* W. Bartley Hildreth, G. Miller, E. Lindquist (Ed.). (pp. 249-271). Routledge & CRC Press. ISBN 9781498750035.

Tudoroiu, T. (2021) *China's International Socialization of Political Elites in the Belt and Road Initiative*, Abingdon, Oxon: Routledge.

Conference Presentations

Department of Behavioural Sciences

Aragon, Antonette, **Talia Esnard**, Makini Beck, Zorka Karanxha, Deirdre Cobb-Roberts, and Vonzell Agosto.

Feminist emotions, conscientization and ways of knowing: Femtoring through Evocative Poetic Ethnographic approaches during COVID-19, as part of a panel on "Educationally Responsible Pedagogy of Cross-Cultural, Women's Peer-Mentorship, Including Mentoring During a Global Pandemic"

The 2021 American Educational Research Association Virtual Meeting, April 2021

C.A.S. Boodram

A Phenomenological Exploration of the Experiences of Stranded Trinidad and Tobago Nationals Abroad Due to COVID-19 Border Closures. Virtual presentation, Re-Imagining Social Work in the Caribbean Series. ACSWE. June 2021

C.A.S. Boodram

Impact of the COVID-19 Pandemic on Aging Migrant Venezuelan Women in Trinidad and Tobago

Caribbean Sociological Association Virtual Conference, June 2021

C.A.S. Boodram

Field Education as a Site of Multiple Possibilities. Subject matter expert at the University of Guyana.

Social Work Retreat, Review and Workforce Discussions, Virtual Presentation, August 2021

C. Descartes

The Psychological Implications of the Shift to the Virtual Learning Environment: Assessing Developmental Trends. Virtual Learning: Risks and Rewards - Charting a course towards a more efficient Education System (Virtual Panel Discussion).

Faculty of Science and Technology Open Science Discussion Series, November 2020

D. Chadee, M. Ramesar, D. Jadoo, S. Matadeen and L. Roach

The Masked Pandemic: Hesitancy during Uncertainty. Exploring the Factors Influencing Vaccination Decisions

Association of Psychological Sciences Annual Conference, May 2021

T. Esnard and M. Knight

Mothering and Entrepreneurship: Global Perspectives, Identities, and Complexities, Launch of a new book in author's Panel Annual Meeting of the Internal Association of Maternal Action and Scholarship-IAMAS, Online Conference.

Theme: *Caring about Mothers Before, During, and After COVID-19*, October 2020

T. Esnard

Reconfiguring Precarity and Invisibility: A Case for Caribbean Migrant Farm Workers. Conference on Migration and Refugees, Department of Sociology, Social Work and Psychology, Mona, Jamaica in honour of the work of Dr. Claudette Brown, November 2020

T. Esnard

Contextualization and Problematization of Higher Education in the Caribbean Guest Lecturer for AFRICAAM 62Q students (A Comparative Exploration of Higher Education in the Anglo-Caribbean and Africa) at Stanford University, February 2021

T. Esnard

Migration, Food Systems and Worker Precarity

Part of the Migration Webinar Series. Video Conferencing for Global Learning initiative targeted at school-aged children. <http://www.vcfl.net/2021/02/migration-webinar-series.html>, March 2021

T. Esnard and D. Cobb-Roberts
Succeeded...Still not enough! Navigating Credibility and Responsibility as Black Women Leaders in Academe, as part of a panel on "Educationally Responsible Pedagogy of Cross-Cultural, Women's Peer-Mentorship, Including Mentoring During a Global Pandemic"
 American Educational Research Association Virtual Meeting, April 2021

T. Esnard
Structural Inequalities and Entrepreneurial Women in the Caribbean: An Interrogation
 Presented within the Gender and Entrepreneurship Track for the annual Gender, Work, & Organization conference, University of Kent, June-July 2021

T. Esnard
Seasonal Migrant Caribbean Workers, Food production and Sustainable Futures: A Critical Review
 Part of a panel on Just Food? Contesting the infrastructures of race, space and poverty of place at a joint conference with the Association for the Study of Food and Society (ASFS); Canadian Association for Food Studies (CAFS) and the Society for the Anthropology of Food and Nutrition (SAFN), virtual conference, June 2021

F. Frederick-Davis
Advancing Health Research in Trinidad and Tobago
 National Health Research Conference, November 2020

S. Gomes
Anthropology as Public Citizenship Virtual Roundtable, with participants from Brazil, Jamaica, Palestine, South Africa, USA, World Anthropology Day, February 2021, Organised by Shelene Gomes.

S. Gomes, M. Gomes and A. Mungal
Intimate Labours: Women Return Migrants As Caregivers for the Elderly in Trinidad and Tobago
 International Sociological Association IV Forum (Online), February 2021

S. Gomes
Decolonization Workshop
 Institute of Commonwealth Studies, School of Advanced Study, University of London, October 2020

S. Gomes
Cultivating empathy: student ethnographic projects in Caribbean university
 International Union of Anthropological and Ethnological Sciences [Online]. March 2021
<https://www.youtube.com/watch?v=LCM-JAWAthwM&feature=youtu.be>

C. Huggins
Black Women are strong but also needs assistance: An interrogation of the Strong Black Women myth
 Allyship Summer Retreat: How to become an ally for Racial Justice.
 Brian Head, Utah, United States, July 2021

M. Neptune-Figaro
Charting a course towards a more efficient Education System, November 2020

M. Neptune-Figaro
Confronting Race in Business and Employment in Trinidad and Tobago, November 2020

R. Seepersad
Intimate Partner Violence: A Trinidad and Tobago Perspective
 Seminar presentation for Caribbean Perspectives on Criminology and Criminal Justice. Criminology Unit, Department of Behavioural Sciences, UWI, December 2020

R. Seepersad
Imprisonment in the Caribbean. Launch of the Regional Comparative Report: Survey of Individuals Deprived of Liberty, Caribbean 2016 to 2019
 Inter-American Development Bank, December 2020

Publications & Conferences (cont'd)

R. Seepersad

Recidivism rates and challenges for prisons in the Caribbean

The Caribbean Association for Feminist Research and Action, Trinidad and Tobago Chapter (CAFRA TT) webinar on *What is Social Protection? What difference can it make for advancing gender equality and social justice* in commemoration of International Women's Day, March 2021

R. Seepersad

Incarceration in the Caribbean

The Faculty of Social Sciences Research Week, March 2021

W. C. Wallace

Exploring police response and interaction with people with mental illness in Guyana

The University of the West Indies, St. Augustine, Faculty of Social Sciences Research Week, March 2021

W. C. Wallace

Out with the Old, in with the New - Migrating from Physical to Cyber-bullying as the 'New Normal'

Caribbean Colour Splash - Secondary Schools Anti-Bullying Conference, Southern Academy for the Performing Arts, San Fernando, October 2020

W. C. Wallace

Riding the Donkey Backwards in the Caribbean: Men as Victims of Abuse and Violence in Intimate Settings in the 21st Century. Reimagining Family Violence Part 2: Gender Based Violence.

Association of Caribbean Social Work Educators, July 2021

M. Wilson, S. Mitchell, H. Johnson, P. Northover and **T. Esnard**

Towards Anti-Racist Seed Infrastructures: A Participatory Story Map of Afro-descendant Seed Saving and Resistance in Jamaica. Online Workshop on Racial Infrastructure Project

University of Edinburgh, UK, March 2021

M. Wilson, S. Mitchell, P. Northover, **T. Esnard**, H. Johnson

Afro descendant Seed Infrastructures: Towards Inclusive Food Security in the Caribbean British Sociological Association Food Studies Group Conference 2021: Food, Food Systems and Times of Insecurity June 2021

Department of Economics

H. Bailey and M. Janssen

Comparing the Kakwani Index to Other Measures of Inequality Based on EQ-5D-3L Outcomes

Virtual EuroQol Large Scale Applications Plenary Session, September 2020.

H. Bailey

EQ-5D Population Norms and Health Inequality: A Comparison of Trinidad & Tobago with other CARICOM Countries

National Health Research On-line Conference, November 2020.

R. Brizan-St. Martin and J. Paul

Assessing Issues of Spatial Accessibility of Multi-island Microstates. Poster presentation.

International Conference on Urban Health "Transforming our Collective Urban Future: Learning from COVID-19" July 2021, Online.

R. Brizan-St. Martin, A. LaFoucade, D. Bethelmie and **R. McLean**

Contextualizing Affordability in Healthcare: An Analysis of Island Dependents (Carriacou and Petit Martinique) of Multi-Island Micro States in the Caribbean. Poster presentation. National Health Research Conference 2020 "Advancing Health Research in Trinidad and Tobago" November 2020, Online.

S. Gabriel, A. La Foucade, C. Metivier, C. Laptiste, V. Beharry and K. Theodore

Food Consumption Survey Jamaica: Eating Patterns and Food Choice Determinants

National Food Industry Task Force Jamaica, March 2021

C. Hoyte and **H. Bailey**

Stroke-Related Services in Trinidad and Tobago: The voices of the patients and their Caregivers

National Health Research On-line Conference, November 2020

A. La Foucade

Assessing Caribbean Countries' Progress Towards Universal Health Coverage

HEU, Centre for Health Economics, June 2021

D. Lewis

Exploring the Health-Income link in CARICOM

Sir Arthur Lewis Institute of Social and Economic Studies Annual Conference, December 2020

D. Lewis, R. Brizan-St. Martin, M. Maharaj, R. Lalloo, B. Ramkissoon, B. Hamlet and G. Boodham

COVID-19: A Sustainable Development Approach to Stabilization and Recovery

Symposium on Multidisciplinary Response to COVID-19

Faculty of Medical Sciences, The UWI, St Augustine, Trinidad and Tobago, September 2020

D. Lewis, B. Ramkissoon and K. Theodore

Examining the relationship between health and real GDP in Trinidad and Tobago, Poster presentation

National Health Research Conference 2020 "Advancing Health Research in Trinidad and Tobago" November 2020, Online

D. Lewis, R. Brizan-St. Martin, M. Maharaj, R. Lalloo, B. Ramkissoon, B. Hamlet and G. Boodham

COVID-19: A Sustainable Development Approach to Stabilization and Recovery, Poster presentation

National Health Research Conference 2020 "Advancing Health Research in Trinidad and Tobago" November 2020, Online.

M. Maharaj, R. Brizan-St. Martin, R. Lalloo, L. Henry, D. Conrad, A. La Foucade and J. Jordan

The Evolution of Academic Advising in the Department of Economics (The UWI, St. Augustine): Towards a Best-Practice

Academic Advising and Mentoring in Higher Education Symposium

The School of Education, The UWI St Augustine, Trinidad and Tobago, March 2021

S. Sanchez, P. Teelucksingh, R. Ali, **H. Bailey** and G. Legall

Quality of Life and Health Status among those receiving Renal Replacement Therapy in Trinidad and Tobago

National Health Research On-line Conference, November 2020

S. Teelucksingh, S. Motilal, **H. Bailey**, S. Sookhai, J. Sooknanan, A. Sookram, V. Sookram, S. Soongoon, J. Spann, D. Stewart, S. Sudama, A. Surujbally and C. Kanhai

Management of Thyrotoxicosis among General Practitioners in Trinidad Compared with 2016 American Thyroid Association Guidelines for Hyperthyroidism

National Health Research On-line Conference, November 2020

Department of Management Studies

P. T. Balwant. (2020) Broadening our sight on the conventional 'Oxford' tutorial model: A scoping review. *Academy of Management Proceedings, 2020*(1). <https://doi.org/10.5465/AMBPP.2020.18391abstract> (AOM is a journal of distinction in the ABS Journal Quality Guide; h5-index of 50; 39-page manuscript)

B. G. Pacheco and J. Paniculangara

Leveraging Malicious Joy to Influence Consumer Word-Of-Mouth Transmittal in Social Networks

2nd Digital Marketing and eCommerce Conference (Virtual), June 2021

B. G. Pacheco

Understanding How Malicious Joy Motivates Consumers to Share Information via Social Media

Faculty of Social Sciences Research Week, St. Augustine, Trinidad, March 2021

Publications & Conferences (cont'd)

M. Rambocas

Ethical Labelling and Consumer Behaviour in Trinidad and Tobago: A Mixed Methods Approach

Faculty of Social Sciences Research Week, Faculty of Social Sciences, The University of the West Indies, St. Augustine Campus, Trinidad and Tobago, March 2021

M. Rambocas

The Impact of Perceived Brand Globalness and Perceived Brand Localness on Consumers' Behavioural Intentions in the Retail Banking Industry

Faculty of Social Sciences Research Week, Faculty of Social Sciences, The University of the West Indies, St. Augustine Campus, Trinidad and Tobago, March 2021

Department of Political Science

M. Basdeo

Rethinking the Parliamentary System: Contributions from the Trinidad and Tobago debate

SALISES 21st Annual Conference, Tobago, December 2020

M. Basdeo

Political Integration and National Sovereignty In The Commonwealth Caribbean

SALISES Research Day, Online, February 2021

I. Rampersad

The Caribbean Court of Justice and Ethno-Political Conflicts

78th Mid-West Political Science Association Virtual Conference
USA, Online, April 2021

I. Rampersad

Continuity and Change in Obama's Cuba Policy

78th Mid-West Political Science Association Virtual Conference
USA, Online, April 2021

I. Rampersad

Panel Chair, *Comparative Judicial Studies*

The International Political Science Association 26th World Congress of Political Science

USA, Online, July 2021

I. Rampersad

The Impact of Politics, Ethnicity and Class on the Caribbean Court of Justice

The International Political Science Association 26th World Congress of Political Science

USA, Online, July 2021

I. Rampersad

Challenging the Doctrine of Separation of Powers in the Commonwealth Caribbean

The International Political Science Association 26th World Congress of Political Science USA, Online, July 2021

C. M. L. Roach and A. Payne-Quan-Kep

Work-Family Conflicts: Navigating Balance and Boundaries during a Pandemic

American Society for Public Administration Annual Conference 2021

Washington DC, USA (Online), April 2021

C. M. L. Roach, R. Chordiya and M. Sabharwal

New Public Management: Cross National Impacts on Organizational Outcomes

American Society for Public Administration Annual Conference 2021

Washington DC, USA (Online), April 2021

C.M. L. Roach

The Impact of New Public Management Practices on Performance-Oriented Management: A Cross-National Study

Public Management Research Conference
Hawaii, USA (Online), June 2021

T. Tudoroiu

A Discreet Globalization: The Chinese-Centre Globalization from Below

Panel on Globalization and Migration, International Studies Association 62nd Annual Convention

Las Vegas, Nevada USA (Online), April 2021

Other Publications

Technical Reports

Bergman, Marcelo; **Randy Seepersad**, Ana Safranoff and Fernando Cafferata. 2020. Survey of Individuals Deprived of Liberty: Caribbean 2016–2019 (The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago). Inter-American Development Bank. Washington, DC. <https://publications.iadb.org/en/regional-comparative-report-survey-individuals-deprived-liberty-caribbean-2016-2019-bahamas>

Esnard, Talia. 2020. UWI Commission on Governance-Analysis of the Quantitative and Qualitative Data. St. Augustine, UWI.

R Brizan -St. Martin and **R. McLean**. 2020. "Impact of COVID-19 on Informal Workers in the Caribbean." Caribbean Vulnerable Communities Coalition Report.

ALaFoucade, KTheodore, **E Scott**, CLaptiste, V Beharry, S Gabriel, H Ali-Sisbane, D Bethelmie, **Leon Henry**, **R Laloo**, G Baliram. 2020. "COVID-19 and the Economic Shock: Impact and Policy Options. Country Case Diagnostics –Trinidad and Tobago" United Nations Development Programme, Trinidad and Tobago Office.

CENTRES & UNITS

ANSA McAl Psychological Research Centre

Books & Book Chapters

Chadee, D. & Kostic, A. (2021). Embracing psychology positively. In A. Kostic and D. Chadee (Ed.), *Positive Psychology: International Perspective*. UK: Wiley-Blackwell, 2021.

Kostic, A., **Chadee D.** & Pejičić, M. (2021). Time perspective and good feelings. In A. Kostic and D. Chadee (Ed.), *Positive Psychology: International Perspective*. Wiley-Blackwell, 2021.

Kostic, A. & **Chadee, D.** (2021). *Positive Psychology: International Perspective*. UK: Wiley-Blackwell, 2021.

Centre for Health Economics (HEU)

Conference Presentations

D. Bethelmie

Socioeconomic Determinants of Ageing in Trinidad and Tobago.

Improving Ageing in Health Care for Trinidad and Tobago Webinar Series

The Ministry of Social Development and Family Services, Division of Ageing, Trinidad and Tobago. Webinar, July 2021

D. Bethelmie

Socioeconomic Determinants of Co-morbidity among the Elderly Population in Trinidad and Tobago: COVID-19 Implications.

Conference on the Economy

The University of the West Indies, Department of Economics. Virtual Conference, November 2020

S. Gabriel

Food Consumption Survey: Eating Patterns and Food Choice Determinants in Jamaica.

National Food Industry Task Force, Jamaica. Virtual Forum, March 2021

S. Gabriel

Identifying and Assessing the Determinants of Unhealthy Dietary Habits Among a Sample of Survey Participants in Jamaica.

Caribbean Public Health Agency 65th Annual Health Research Conference. Virtual Conference, June 2021

H. Ali-Sisbane

Poverty and the Rights of the Child: A Look at Trinidad and Tobago.

United Nations Association of Trinidad and Tobago: "Convention on the Rights of the Child". Virtual Forum, December 2020

H. Ali-Sisbane

COVID-19 and Rights of Children.

The University of the West Indies, Faculty of Social Sciences, Department of Economics COTE Youths. Virtual Forum, March 2021

Publications & Conferences (cont'd)

R. McLean

The Role of Public/Private Partnerships in the Development of Caribbean Genomics and Bioinformatics Data Centres.

The University of the West Indies, Faculty of Medical Sciences, Mona, Jamaica. Workshop/Retreat on H3E Caribbean Initiative, April 2021

C. Metivier

Overview of Health Financing and Financial Protection in the Caribbean.

Train-the-Trainers Session, World Health Organization Financial Protection Indicators. June 2021.

C. Metivier

Health Financing Progress Matrix: Assessing Caribbean Countries' Progress towards Universal Health Coverage. (Moderator)

The World Health Organization. Webinar, June 2021

C. Metivier

Food Consumption Survey: Eating Patterns and Food Choice Determinants – St. Kitts and Nevis.

Improving Household Nutrition Security and Public Health in CARICOM. Webinar, June 2021

C. Metivier

Sugar Sweetened Beverages: Economic Implications and Policy Options in the Caribbean. (Moderator)

The University of the West Indies, HEU, Centre for Health Economics. Webinar, November 2020

Institute for Gender & Development Studies (IGDS)

Journal Publications

Nixon, Angelique V. Co-Editor with Carole Boyce Davies. "Caribbean Global Movements." *The Black Scholar*. Special Issue. Press. 2021.

Nixon, S. 2020. "Reimagining Erotic Knowledge in the Queer Caribbean." Book Review of *Erotic Islands: Art and Activism in the Queer Caribbean* (2018 Duke UP). *GLQ: A Journal of Gay and Lesbian Studies*. 26.2. pp. 346-8.

Books & Book Chapters

Barratt, S. 2021. Contending with Binaries: Rethinking Mixedness Through the Caribbean. Douglady Editors: Encarnacion Guitierrez-Rodriguez, Rhoda Reddock. Title: Decolonial Perspectives on Entangled Inequalities: Europe and The Caribbean". Anthem Press pg 175-185

Barratt, S. 2021. Are We There Yet? Contemporary Struggles for Gender Justice and the Legacy of Caribbean Feminisms. Editors: Josephine Beoku-Betts and Akosua Adomako Ampofo. Title: Producing Inclusive Feminist Knowledge: Positionalities and Discourses in the Global South Vol 31, Emerald Publishing Company UK, Advances in Gender Series. In Press.

Barratt, S. and Ranjitsingh A. 2021. Recognising Selves in Others: Situating Douglady Manoeuvrability as Shared Mixed-Race Ontology. Editor: Erica Chito Childs. Title: The Boundaries of Mixedness: A Global Perspective. 1st Edition. Routledge In Press.

Barratt, S. 2020 Boundless Heterogeneity: 'Callaloo' Complexity and the Measurement of Mixedness in Trinidad and Tobago. In The Palgrave International Handbook of Mixed Racial and Ethnic Classification. Eds. Zarine L. Rocha, Peter J. Aspinall. Palgrave Macmillian. ISBN 978-3-030-22873-6. p 163-177

Barratt, S., Ranjitsingh, A. 2020 Recognizing Selves in Others: Situating Douglá Manoeuverability as Shared Mixed-Race Ontology. In *The Boundaries of Mixedness: A Global Perspective*. Ed. Erica Chito Childs. Routledge.

Nixon, S., Rosamond King. 2021. Embodied Theories: Local Knowledge(s), Community Organizing, and Feminist Methodologies in Caribbean Sexuality Studies in Kempadoo, Kamala and Halimah De Shong, Eds. *Methodologies in Caribbean Research on Gender and Sexuality*.

Kingston, Jamaica: Ian Randle. (Republished essay)

Nixon, S., 2020. Innovative Methodologies for Studying the Productivity and Well Being of Working Men and Women." *Connecting the Dots: Work • Life • Balance • Ageing*. Edited by Patricia Mohammed and Cheryl Ann Boodram. Ian Randle Publishers. pp. 17-24.

Nixon, S., Taylor R.. 2020. Work Life Balance – Reflections on Health and Well Being". *Connecting the Dots: Work • Life • Balance • Ageing*. Edited by Patricia Mohammed and Cheryl Ann Boodram. Ian Randle Publishers. pp. 41-57.

Nixon, S. 2019. On Being a Black Sexual Intellectual: Thoughts on Caribbean Sexual Politics and Freedom." *Black Sexual Economies: Race and Sex in a Culture of Capital*. Eds. Adrienne D. Davis and The Black Sexual Economies Collective. University of Illinois Press. pp. 237-249.

Nixon, S. 2020. Reimagining Erotic Knowledge in the Queer Caribbean. Book Review of *Erotic Islands: Art and Activism in the Queer Caribbean* (2018 Duke UP). *GLQ: A Journal of Gay and Lesbian Studies*. 26.2. pp. 346-8

McFee, D & Cozier, R. 2020 Work Life Balance and Ageing, Law, Policy and Practice. In P. Mohammed, *Connecting the Dots. Work. Life. Balance. Ageing*. Kingston: Ian Randle Publishers Pp 75-98

Reviews

Nixon, S. 2020. "Reimagining Erotic Knowledge in the Queer Caribbean." Book Review of *Erotic Islands: Art and Activism in the Queer Caribbean* (2018 Duke UP). *GLQ: A Journal of Gay and Lesbian Studies*. 26.2. pp. 346-8.

Collins, T and Richie D. 2020. "Reconstructing Racialised Femininity: Stories from Venezuelan Migrant Women". In *Migration and Development*. <https://www.tandfonline.com/doi/abs/10.1080/21632324.2020.1809283>

Conference Presentations

S. Barratt

Transgressive Potentials: Reinterpreting Carnival Through Traditions of Resistance Paper: I

Playing Pavement Mas: Claiming Space, Crossing Boundaries at Trinidad and Tobago Carnival

The Mas(s) in We - (Re)claiming de People's Festival - A Virtual Research & Arts Symposium.

The UWI St Augustine. 26 February 2021.

S. Barratt

Free Up Yuh Self: Disrupting Gender, Sexuality, Race and Finding Agency in Carnival

Toronto Carnival Symposium

July 23, 2020, Online

S. Barratt

Feminist Futures in the Global South: Research, Activism and Creativity.

Sociologists for Women in Society. San Diego, California.

January 30 to February 2, 2020, Winter Meeting 2020.

G. Hosein

Canadian Association for Social Work Education Conference (Online). Paper presented: Men Engaged in Gender Justice in

Publications & Conferences (cont'd)

the Caribbean, Pakistan, Nepal and Canada: Documenting Personal Transformation through Digital Stories (Project partners: Liza Lorenzetti, Aamir Jamal, Gabrielle Hosein, Muhammed Ibrar, Rita Dhungel, Jeff Halvorsen, Janelle Lee Pong, Kamal Sehgal, Sarah Thomas. Co-authors: Peter Weller, Abbas Mancey) -June 3 2021.

G. Hosein

Caribbean Studies Association Conference (Guyana). Paper presented: on Panel: "Post-The Use of Language in Media, Disruptions in Hegemonic Meanings, and the Resistance to Gender Violence Conference – IV ISA Forum of Sociology (February 23-28, 2021) Paper: "Beyond the Misogyny Frame: Caribbean Media Coverage of Violence Against Women"- February 14 2021

G. Hosein

Caribbean Studies Association Conference (Guyana). Presented on Panel: "Building a Caribbean Anthropocene Collaborative Commons"-June 2, 2021

G. Hosein

Caribbean Studies Association Conference (Guyana). Paper presented, Intimate Partner Violence and the Failure of State Protection, on Panel: Examining Intimate Partner Violence -May 31, 2021

A. Nixon

"The Jouvay in Me/We - Mas Making, Embodied Resistance, and Transformation within/beyond the Carnival Space."

The Mas(s) in We - (Re)claiming de People's Festival - A Virtual Research & Arts Symposium.

The UWI St Augustine. 26 February 2021.

Other Publications

Hosein G. (2020) Engaging Men to End Violence Against Women and Girls in the Caribbean: Expanding the Possibility Frontier. IDB.

Hosein G. (2020) Hosein, Gabrielle. Post-Indentureship Caribbean Feminist Thought, Transoceanic Feminisms, and the Convergence of Asymmetries, in Scholar and Feminist Online, 16, 1.

Technical Reports

2020. Engaging Men to End Violence Against Women and Girls in the Caribbean: Expanding the Possibility Frontier. Dr Gabrielle Hosein and Tricia Basdeo-Gobin. IDB

2021. Pathways to Inclusive Peace-building in the Caribbean. Dr. Gabrielle Hosein and Asiya

Mohammed. Department of Politics and Peace building Affair

Institute of International Relations (IIR)

Journal Publications

Chami, G., C. Brown, N. Roy, (2020). "The securitization of Post-9/11 reception patterns of refugees, asylum seekers, and migrants: deconstructing the Venezuelan Exodus (A case study). *Migration and Development* 10 (2), 23 August 2020.

<https://doi.org/10.1080/21632324.2020.1809280>

Montoute, A., G. Chami (Guest editors) (2020). "The Life and Legacy of Kofi Atta Annan: Global Statesman, Diplomat and Peacemaker Extraordinaire," *Caribbean Journal of International Relations and Diplomacy* 5 (2), September 2020. <https://journals.sta.uwi.edu/iir/index.asp>

Montoute, A., Gonzalez-Vicente Ruben. (2020). "A Caribbean Perspective on China-Caribbean Relations: Global IR, Dependency and the Post-Colonial Condition" *Third World Quarterly* 42 (4) DOI: 10.1080/01436597.2020.1834841.

Montoute, A., Georgina Chami (2020). Introduction, Special Issue of the *Caribbean Journal of International Relations and Diplomacy. The Legacy of Kofi Annan, Global Statesman, Diplomat and Peacemaker Extraordinaire*, vol 5, no. 2, pp. 1- 30.

Montoute, A. (2020). Civil Society Responses to Trade Liberalisation: The Case of the Banana Industry in St. Lucia, *Journal of Eastern Caribbean Studies* vol. 44, no. 3, December, pp. 78-114

Richards, Joel and **Annita Montoute** (2020). The Global South Still Needs Development: Can the Belt and Road Deliver? *UWI-GLOBAL Belt and Road Research Network Magazine: Making the Belt and Road Initiative Work for the Caribbean*, issue no. 2, September, pp. 9 – 12.

Guest editors: Hinds Kristina and **Annita Montoute**, (2020). Special Issue of the *Journal of Eastern Caribbean Studies: Demystifying Civil Society* vol. 44, no. 3, December

Hinds Kristina and **Annita Montoute**, Guest Editorial (2020). Special Issue of the *Journal of Eastern Caribbean Studies: Demystifying Civil Society* vol. 44, no. 3, December, pp. 1 – 8.

Jessica Byron, Jacqueline Laguardia Martinez, **Annita Montoute** & Keron Niles, 2021. "Impacts of COVID-19 in the Commonwealth Caribbean: key lessons", *The Round Table*, 110:1, (February 2021), pp. 99-119, DOI: 10.1080/00358533.2021.18756942

Jacqueline Laguardia Martinez, 2020. "25 años de la creación de la Asociación de Estados del Caribe: Balance y retos a la integración regional" *Caribbean Studies*, V.48, N.2., July - December, pp. 145-168. DOI 10.1353/crb.2020.0017.

Shah, Kalim U., Sashwat Roy, Wei-Ming Chen, **Keron Niles**, and Dinesh Surroop, 2020. "Application of an Institutional Assessment and Design (IAD)-Enhanced Integrated Regional Energy Policy and Planning (IREPP) Framework to Island States." *Sustainability* 12, no. 7 (2020): 2765. <https://doi.org/10.3390/su12072765>.

Chan, Sander, Idil Boran, Harro van Asselt, Paula Ellinger, Miriam Garcia, Thomas Hale, Lukas Hermwille, Kennedy Liti Mbeva, Ayşem Mert, Charles B. Roger, Amy Weinfurter, Oscar Widerberg, Paulette Bynoe, Victoria Chengo, Ayman Cherkaoui, Todd Edwards, Malin Gütschow, Angel Hsu, Nathan Hultman, David Levai, Saffran Mihnar, Sara Posa, Mark Roelfsema, Bryce Rudyk, **Michelle Scobie**, and Manish Kumar Shrivastava. 2021. "Climate Ambition and Sustainable Development for a New Decade: A Catalytic Framework." *Global Policy* n/a (n/a). doi: <https://doi.org/10.1111/1758-5899.12932>.

Pihl, Erik, Eva Alfredsson, Magnus Bengtsson, Kathryn J Bowen, Vanesa Castan Broto, Kuei Tien Chou, Helen Cleugh, Kristie Ebi, Clea M Edwards, Eleanor Fisher, and **M. Scobie**. 2021. 10 New Insights in Climate Science 2020-a Horizon Scan. Lawrence Livermore National Lab. (LLNL), Livermore, CA (United States).

Scobie, Michelle, and Afiya France. 2020. "Child marriage, human rights and international norms: the case of legislative reform in Trinidad and Tobago." *Third World Quarterly* 41 (10):1687-1706. doi: 10.1080/01436597.2020.1780908.

Griggs, David, Mark Stafford-Smith, David Warrilow, Roger Street, Carolina Vera, **Michelle Scobie**, and Youba Sokona. 2020. "Use of weather and climate information essential for SDG implementation." *Nature Reviews Earth & Environment*. doi: 10.1038/s43017-020-00126-8.

Books & Book Chapters

Edited Collections

Briguglio L., **Byron J.**, Moncada S., Veenendaal W. eds. 2020. *Handbook on Governance in Small States* London: Routledge ISBN 9780367183998

Peer-Reviewed Book chapters

Laguardia-Martinez Jacqueline 2021. 'Notas sobre economía en la Cuba contemporánea in *(Post) colonialismo a prueba. Cuba, Puerto Rico y las Filipinas desde una perspectiva comparada*, Hans Burchardt [Ed.], Editorial Gedisa: Ciudad de México, pp. 111 – 138 ISBN 978-84-18525-65-0.

Laguardia-Martinez Jacqueline 2021. 'Cuba's Response to Climate Change: Mitigation Lessons from Caribbean SIDS', in *Handbook of Climate Change Management: Research, Leadership, Transformation*, edited book by Walter Leal Filho, Johannes M. Luetz and Desalegn Yayeh Aya, Springer Nature's "Climate Change Management Series". DOI https://doi.org/10.1007/978-3-030-22759-3_89-1

Publications & Conferences (cont'd)

Laguardia-Martinez Jacqueline 2020. 'Los efectos del cambio climático en los PEID caribeños. Propuestas de política para su enfrentamiento', in *Cambio climático y sus impactos en el Gran Caribe/ Jacqueline Laguardia Martínez* [Ed.], CLACSO: Buenos Aires, pp. 29 – 52. ISBN 978-987-722-658-4.

Montoute Annita 2020. Walter Rodney: A Pan-African Martyrdom, pp. 237 – 250, in *The Pan-African Pantheon: Prophets, Poets and Philosophers*, edited by Adekeye Adebajo, Johannesburg: Jacana.

Conference Presentations

J. Byron and J. Laguardia Martinez

Presentation, ECLAC Expert Group Meeting on the Evaluation of South-South Cooperation in the Caribbean in the Context of the Post-Pandemic Recovery, December 11 2020.

J. Byron

Presentation on the experience of the UWI, in Caribbean Universities (UNICA) Round Table "Joint Degree Programmes, their Strategic Importance for Fostering Regional Cohesion and Collaboration" March 26 2021.

J. Laguardia Martinez

"El New World Group en el pensamiento y la acción decoloniales de los años 60: su relevancia en el Caribe actual", paper presented at the Congreso Latinoamericano *Crisis Mundial y Geopolítica. Pensar y construir el multipolarismo y el pluriversalismo para un nuevo orden mundial*, organized by the Centro de Investigaciones en Política y Economía (CIEPE) and the Observatorio Internacional de la Crisis, Argentina, December 7, 2020.

J. Laguardia Martinez

"Los retos del Caribe Insular ante la COVID-19 ¿crisis u oportunidad?", paper presented at the XIV International Conference of Caribbean Studies *La crisis como oportunidad de transformación*, organized by the Cátedra de Estudios del Caribe 'Norman Girvan', Havana, December, 2020.

J. Laguardia Martinez

"Les impacts des élections aux États Unis Le cas de Cuba", paper presented at the Webinar BIDEN/HARRIS. Quelle perspective pour la Caraïbe?, organized by the association Contacts Research Caribbean ([CO.RE.CA](https://www.co-re.ca)), November 27, 2020.

J. Laguardia Martinez

"Acciones de solidaridad y cooperación de Cuba con los PEIDS caribeños en tiempos de pandemia", paper presented at the Coloquio Internacional *El Gran Caribe: Geopolítica, integración y pandemia*, organized by the Centro de Estudios Latinoamericanos FCPyS-UNAM, November 18, 2020.

K. Niles

"COVID-19 & Climate Change: realities of the Anthropocene. Renegotiating our approach to the environment." Roundtable Panel entitled "The English-speaking Caribbean and COVID-19. Crisis as an opportunity for transformation" at the Latin American Studies Association (LASA) Congress. 28 May 2020.

K. Niles

"Climate Solutions for the Caribbean". Presented at "Solve Climate 2030": the Global Climate Dialogue Webinar, hosted by the University of the West Indies in collaboration with Bard College. 7 April 2021.

K. Niles

"Resilience within the context of an urgent Energy Transition." Presented at the 24th Annual (Virtual) Health, Safety, Security and Environment (HSSE) Conference. Hosted by the American Chamber of Trinidad and Tobago. 20 October 2020.

M. Scobie

April 2021. Speaker at the Environmental Studies Section of the International Studies Association- ESS Distinguished Scholar Roundtable honouring Professor Frank Biermann.

M. Scobie

April 2021. Presentation - International Studies Association- Panel on: The BBNJ Treaty – At the Finishing Line of a New Treaty. Presentation: Does the Global South have voice in the BBNJ negotiations.

M. Scobie

April 2021. Presentation - International Studies Association- Panel on: The Sustainable Development Goals: Assessing the 2030 Agenda. Presentation: Sustainable Development Goals: norms, implementation pathways and Small Island Developing States.

M. Scobie

November 2020. Webinar on the Future of Biodiversity in Latin America and the Caribbean. Presentation: Biodiversity and the Caribbean SIDS. Association of Tropical Biology and Conservation & Ecological Society of America.

D. Seerattan

An Optimal Strategy for Financing Growth in the Caribbean by Dave Seerattan. Forthcoming in *The Caribbean on the Edge: Rising Above the Orthodoxy of Development Thinking*, Ian Randle, 2021.

D. Seerattan

The Caribbean Regional Financial Stability Report by Dave Seerattan. Report presented at the 56th Meeting of CARICOM Central Bank Governors, June 4, 2021.

D. Seerattan

Teleconference on the theme *Financial Stability, Macro-prudential Regulation and International Capital Flows*. Hosted by UNCTAD/ECLAC April 15-16, 2021.

D. Seerattan

Attended The IADB's 53rd Meeting of the Network of Central Banks and Finance Ministries of Latin America and the Caribbean April 7-9, 2021.

D. Seerattan

Presented on the theme *Foreign Exchange Challenges in Trinidad and Tobago*. Webinar hosted by the Department of Economics, UWI, St. Augustine on April 6, 2021.

D. Seerattan

The Impact of COVID 19 on Financial Stability in the Caribbean by Dave Seerattan. Presented at the 55th Meeting of CARICOM Central Bank Governors, December 4, 2020.

D. Seerattan

Presented on the theme *Foreign Exchange Management in Trinidad and Tobago* at the *Post Budget Forum*. Hosted by the Department of Economics, UWI, St. Augustine on October 8, 2020.

D. Seerattan

CGB-IADB Joint Seminar on the theme *Better Banking Policies to Blunt the COVID 19 Crisis in Latin America and the Caribbean*, held on September 16, 2020.

Other Publications**Encyclopaedic Entries**

Byron, J. 2020 Updated political and economic reviews for Guadeloupe, French Guyane, Martinique in *Europa Regional Surveys of the World: South America, Central America and the Caribbean*. London: Routledge.

Technical Reports

Byron J., Laguardia Martinez J. 2020. *Evaluation of South-South Cooperation in Selected Caribbean Countries: Barbados and Jamaica*. ECLAC Working Document LC/OR.2020/DDR/2 December 1 20-00909, Original: English 20-00904.

Keron Niles, Bertelsmann Stiftung, BTI 2021 Country Report (Editor) – Trinidad and Tobago. Gütersloh: Bertelsmann Stiftung, 2020.

Bardouille Nand. 2020. "The Coronavirus (COVID-19) and the Caribbean: Economic, Governance and Political Contexts" *SRC Working Paper* Shridath Ramphal Centre, UWI Cave Hill, August 25 2020.

Publications & Conferences (cont'd)

Blogs

Bardouille Nand "Towards a post-BREXIT UK-Caribbean Relationship" *SRC Trading Thoughts Blog* Shridath Ramphal Centre, UWI Cave Hill, March 30 2021.

Chami, Georgina and Florence Seemungal. "Rising Refugee Crisis in the Covid-19 pandemic: Venezuelan Refugees and Economic Migrants in Trinidad and Tobago." Blog, *Border Criminologies*, Faculty of Law, University of Oxford. 9th April, 2021. <https://www.law.ox.ac.uk/research-subject-groups/centre-criminology/centreborder-criminologies/blog/2021/04/venezuelan>

Other

J. Byron

Presentation on the Caribbean situation, Canadian Council for the Americas "Annual Economic and Political Outlook for the Americas" January 12 2021.

J. Byron

Panellist in Caribbean Policy Consortium webinar "The Importance of the Caribbean: Challenges and Opportunities" January 14 2021.

J. Byron

Panellist in University of Malta Small States Institute book launch for *Handbook of Governance in Small States*, March 04 2021.

J. Byron

Discussant in FLACSO Dominican Republic inaugural lecture in virtual conference series "Impacto del COVID-19 en el Caribe", May 27 2021.

J. Byron

Moderator and presenter, IIR Round Table "COVID-19 and its impact on the Commonwealth Caribbean: Lessons for the Future" Latin American Studies Association Virtual Congress, Quito, Ecuador, May 28 2021.

J. Laguardia Martinez

Keynote speaker at the VIII Coloquio Internacional of Centro de Estudios Latinoamericanos (CELA) UNAM on *Los retos del Caribe Insular ante la COVID-19 ¿crisis u oportunidad?*, Mexico, October 15, 2020.

Seismic Research Centre (SRC)

Journal Publications

Papadopoulos, I., K. Reddock, J. Manzano and J.L. Latchman (2020). The Trinidad and Tobago Microzonation Project: Port of Spain. *Geophysical Journal International*, 222(3), 1936-1951.

Chatzopoulos, G., **Papadopoulos, I.**, Vallianatos, F., Makris, J. P., & Kouli, M. (2021). Strong Ground Motion Sensor Network for Civil Protection Rapid Decision Support Systems. *Sensors*, 21(8), 2833.

Tucker, M.E., Carey, S.N., Sparks, R.S.J., **Stinton, A.**, Leng, M., Robinson, L., Li, T., Lewis, J., Cotton, L., (2020). Carbonate crusts around volcanic islands: Composition, origin and their significance in slope stability. *Marine Geology* 429, 106320. <https://doi.org/10.1016/j.margeo.2020.106320>

Basant, R.A., Ryan, G.A., Peacock, J.R., Camacho, A.G., Blake, O.O., Hautmann, S. and Lynne, B.Y. (2021). Multi-geophysical parameter classification of the Montserrat geothermal system. *Geothermics*, 90:102006.

Higgins, M., La Femina, P.C., Weber, J.C., Geirsson, H., **Ryan, G.A.** and Wauthier, C., (2021). Strain Partitioning and Interseismic Fault Behavior Along the Caribbean-South American Transform Plate Boundary. *Tectonics*, 40(8): e2021TC006740.

van Rijsingen, E.M., Calais, E., Jolivet, R., de Chabalier, J.-B., Jara, J., Symithe, S., **Robertson, R. and Ryan, G.A.** (2021). Inferring Interseismic Coupling Along the Lesser Antilles Arc: A Bayesian Approach. *Journal of Geophysical Research: Solid Earth*, 126(2): e2020JB020677.

Smith, P.J., Bean, C.J. (2020) RETREAT: A REal-Time TREmor Analysis Tool for Seismic Arrays, With Applications for Volcano Monitoring. *Frontiers in Earth Science*. doi:10.3389/feart.2020.586955

Thompson, Glenn., Power, John A., Braunmiller, Jochen., Lockhart, Andrew B., Lynch, Lloyd., McCausland, Wendy., Rowe, Charlotte A., Shea, Thomas., White, Randall A., Breithaupt, Charles I. (2020) Capturing, Preserving, and Digitizing Legacy Seismic Data from the Montserrat Volcano Observatory Analog Seismic Network, July 1995–December 2004. *Seismological Research Letters* 91 (4): 2127–2140. <https://doi.org/10.1785/0220200012>.

Conference Presentations

Erouscilla Joseph. 2021. ASHRAE CARICOM Chapter, Impact of Volcanic Eruptions on Health and Infrastructure. 19 April, 2021(Virtual)

Erouscilla Joseph, Richard Robertson, Joan L. Latchman, Lloyd Lynch, Stacey Edwards, Thomas Christopher, Roderick Stewart, Graham Ryan, Adam Stinton, Michal Camejo, Karen Pascal, Victoria Miller, Rodrigo Contreras Arratia. Management, Monitoring and Impact of the 2020 – 2021 La Soufrière, St. Vincent Eruption. 17 June, 2021. IAVCEI Webinar.

Erouscilla Joseph, Elizabeth Riley, Michelle Forbes, Rose-Ann Smith. SCIENCE FOR TODAY FORUM: Ash in the Air, Eruption in Effect: La Soufrière, St. Vincent, 2020-2. June 9, 2021

Sir Arthur Lewis Institute of Social & Economic Studies (SALISES)

Journal Publications

McCree, R. (2021). The state and sport in Trinidad and Tobago, 1947–2019. *International Journal of Sport Policy and Politics* 13(3): 531-544. DOI: 10.1080/19406940.2021.1905036.

Chanfón, C., **P. Mohan**, E. Strobl, and T. Tveit. (2021). "The impact of hurricane strikes on cruise ship and airplane tourist arrivals in the Caribbean." *Tourism Economics* doi:10.1177/13548166211037406.

Mohan, P., E. Strobl and P. Watson. (2021). "Innovation, market failures and policy implications of KIBS firms: The case of Trinidad and Tobago's oil and gas sector." *Energy Policy* 153(2021) (12 pages).

Mohan, P. and E. Strobl. (2021). "The impact of tropical storms on tax revenue." *Journal of International Development* 33(3): 472-489.

Mohan, P. (2021). "Violent Crime and Firm Performance: Evidence from the Caribbean." *International Journal of the Economics of Business* (20 pages) doi.org/10.1080/13571516.2021.1896926

Mohan, P. and E. Strobl. (2020). "Climate and the Global Spread and Impact of Bananas' Black Leaf Sigatoka Disease." *Atmosphere* 11(9): 947-966.

Mohan, P. and E. Strobl. (2020). "The Impact of Tropical Storms on the Accumulation and Composition of Government Debt." *International Tax and Public Finance* (14 pages) <https://doi.org/10.1007/s10797-020-09622-5>

Mohan, P. 2020. "Human Capital and Technical Efficiency: A Stochastic Frontier Analysis of Caribbean firms." *Journal of Education and Work* 33(2): 143-153.

Publications & Conferences (cont'd)

Parey, B. (2021). Wellbeing among older persons with disabilities in Trinidad. *Health and Social Care in the Community*. <https://doi.org/10.1111/hsc.13518>

Parey, B. (2021). Attitudes towards home care of older persons with disabilities: The case of Trinidad. *Journal of Family Issues*. <https://doi.org/10.1177/0192513X211029248>.

Parey, B. (2021). Exploring Positive and Negative Attitudes among Primary and Secondary School Teachers in Trinidad: Implications for Teacher Education. *International Journal of Inclusive Education*. <https://doi.org/10.1080/13603116.2021.1902004>.

Parey, B. (2021). Parents' Perspectives on Wellbeing Among Children with Disabilities: Using Mixed Methods and Sen's Capability Approach. *Child Indicators Research*, 14(4): 1635-1651. <https://doi.org/10.1007/s12187-020-09801-0>.





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