

# FACULTY REPORT

2010/2011





**About our Cover** Sometimes our gaze can be so fixed at what's happening at eye level that we miss out on what's happening underfoot. Unseen, there is an energetic, focused community going industriously about its business of building. In this report we invite you to **take a closer look** at our Campus to see how individual initiatives contribute to our continued *Relevance* to our region; how they enhance our *Responsiveness* to our stakeholders; and how we are *Repositioning* our Campus for the future.

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# FACULTY OF **ENGINEERING**

**PROFESSOR BRIAN COPELAND**  
DEAN, FACULTY OF ENGINEERING



## DEAN'S MESSAGE

The Faculty of Engineering continued its major activities in three areas related to the UWI Strategic Plan 2007-2012, i.e., Curriculum and Pedagogical Reform (CPR) at the undergraduate and postgraduate levels, Research and Innovation, and Support Systems.

Through the Open Campus/Trinidad the Faculty successfully started a new pre-engineering programme in September 2010. The pre-engineering programme is unique in that it offers dual certification through the inclusion of vocational training components that include welding, electrical installation, masonry and safety in addition to the more traditional theoretical certification. Discussions were held with the Open Campus to expand the programme Caribbean-wide.

The Faculty continued on its three pillars of activity in Curriculum and Pedagogical Reform (CPR), Research and Innovation (R&I) and System support. Summary details are as follows:

### 1. CPR at all Levels

The Faculty

- (a) Established a dual certified Pre-Engineering programme that targets academic and certifiable hands-on knowledge (St Augustine). Following discussions with colleagues at Mona, the Faculty has begun consideration of extending this programme to a 2-Year Associate Degree in Engineering. The Faculty is of the view that this would more easily facilitate the vocational component of the pre-engineering programme while providing students with a more useful certificate.
- (b) Facilitated development of an Engineering Programme at Mona.
- (c) Implemented the following new programmes:
  - i. *MASc in Electrical and Computer Engineering (Revised)*

- ii. *MPhil & PhD in Geomatics Engineering and Urban and Regional Planning*

- (d) Created a Faculty Process Manual that documents all applicable regulations, procedures, roles and responsibilities in the Faculty of Engineering.
- (e) Mandated all departments to adopt a well-defined Learning Outcomes (LO) approach programme design and delivery.
- (f) Started discussion on a more logical design for the GPA system that distinguishes it strictly as a metric of knowledge attained and consequently abandons its use as a trigger for progression penalties (RTWs and Warnings) in preference to using the extent and frequency of course failures for this purpose.
- (g) Started discussion with the National Training Agency of Trinidad and Tobago on the addition of a vocational training track leading to a CVQ Level 3 certification at graduation and a CVQ Level 4 post graduation certificate running in parallel to the formal academic programme. This initiative would directly address the lack of preparedness of graduates for the world of work.
- (h) Mandated the Outreach Deputy Dean and the Engineering Institute to develop plans for distance delivery in selected postgraduate and undergraduate programmes.
- (i) Engaged the IDU on the development of remediation programmes, significantly in mathematics, for weaker students and for bridging gaps in students' knowledge.
- (j) Supported the start of CACET accreditation in Civil and Chemical Engineering.

2. Research & Innovation

*Systemic Aspect*

The Faculty moved to disseminate its template for a National Innovation System (NIS) to link top level research to commercialisation. This took place through engagement of University Management and in “Panchayats” organised by the Government of Trinidad and Tobago. Further efforts will involve:

- i Building as many of the components of the NIS as possible, including academic (chaotic) research, developing a strategy for identification and protection of potentially lucrative IP (foresighting) and the creation of UWI startups.
- ii Transformation of the Engineering Institute as an effective Centre of Excellence (CoE) as per the NIS template.
- iii Formation of Faculty Research Clusters to support NIS development.

*Highlights*

- i The Steelpan Initiatives Project (SIP) signaled the readiness of its R&D output for commercialisation. The Government of Trinidad and Tobago and the UWI were written in February 2011 on the issue of shareholding.
- ii UWI-recognised was an NVIDIA Computer Unified Device Architecture (CUDA) Centre (for high speed parallel graphics processor unit programming).
- iii The Faculty was informed that two of its graduates, Messrs. Emile Ackbarali and Che Gibbon, were lead developers of a GPS navigation and tracking application, MNAV, for Trinidad and Tobago. This shows that our attempts at inculcating a more innovative culture have started to bear fruit.

iv Following are specific projects of note:

- a) The m-Fisheries Project targeting the use of mobile phone technology to provide real time market data to fisher folk was started by Dr. Kim Mallalieu in collaboration with MIT.
- b) Edulink project in Urban Planning led by Dr. Asad Mohammed.
- c) Canadian Government project with SALISES to research the impact of Global Climate Change on coastal communities (Dr. Michael Sutherland).
- d) Collaboration with CARIBSAT to conduct regionally relevant research using remote sensing methodologies (Professor Jacob Opadeyi).

v. Critical focus areas for clustering include natural disaster mitigation (floods, landslides, hurricanes, earthquakes) and renewable energy.

3. Support Systems

- i The Faculty engaged the broader campus in the task of documenting guidelines and standards for instructional spaces.
- ii The Classroom Technology Support Unit (CTSU) was created and operationalised. The posts in the CTSU are yet to be regularised.
- iii The Faculty facilitated the formation of CACET (Caribbean Accreditation Council for Engineers and Technologists) in conjunction with the Institute of Electrical and Electronic Engineers (IEEE).

- iv Work on the development of a metric-based assessment and promotions procedure for the Faculty of Engineering slowed somewhat due to the reduced availability of Dr. Bheshem Ramlal during the year. This was further impacted by his appointment as Department Head as of September 2011. A new, more direct strategy has been devised to treat with this challenge.

For the review period the Faculty enrolled 371 undergraduates, inclusive of twenty-four (24) in the Electronics Engineering programme at Mona, and 272 postgraduates. Twenty-five (25) members of staff attended training provided by the Instructional Development Unit (IDU). The Faculty offered over 150 courses with an e-learning component.

Work continued through the Engineering Institute in the offering of Continuing Professional Development courses.

## DEPARTMENTAL EXECUTIVE SUMMARIES

### *Department of Chemical Engineering*

A new Head of Department was installed for a three-year period with effect from August 1, 2010 and the Department continued to maintain its quality delivery despite its many challenges. During the first quarter of the period under review, the Department undertook a strategic review of its operations facilitated by Consultants, GBest Trading Company Limited. A team of assessors from the Institution of Chemical Engineers (IChemE) visited the department from April 18-19, 2011. Resulting from this visit was the re-accreditation of the BSc and MSc Programmes in Chemical and Process Engineering for a 5-year period, from student intake 2010 to 2015. During the same period a team of assessors from Caribbean Accreditation Council for Engineering and Technology (CACET) was allowed to observe the proceedings.

During the review period the Petroleum Geoscience and the Petroleum Engineering Programmes were merged into the Petroleum Studies Unit (PSU). The PSU also had an accreditation visit from the Institute of Materials, Minerals and Mining (IOM3) from March 16–18, 2011 which resulted in the re-accreditation of the MSc in Petroleum Engineering Programme for a 5-year period, from student intake 2010.

Research continued in the different disciplines within the department – Chemical and Process Engineering, Food Science and Technology and Petroleum Studies - resulting in numerous publications from staff members. The Department also continued to collaborate with local, regional and international institutions and agencies.

During the period under review, the department graduated fifty-three (53) students from its undergraduate programmes as follows: First Class Honours (19%), Second Class Honours Upper Division (40%), Second Class Honours Lower Division (36%) and Pass (5%). These results were somewhat disappointing when compared with previous years.

On a brighter note, for the second consecutive year, a Chemical Engineering Student, Mr. Reginald Pantin, emerged the faculty's top performer academically, while another student Ms. Meera Rampersad was selected as Valedictorian.

### *Department of Civil & Environmental Engineering*

In the 2010/2011 Academic Year, the Department of Civil and Environmental Engineering continued to perform creditably. Undergraduate enrollment was near capacity and this is expected to continue for the next few years. The postgraduate enrollment expanded significantly due to restructuring efforts designed to take advantage of perceived increased demand. In terms of research output, several manuscripts were published in archival refereed journals, and presentations made at a number

of international conferences. The Department was also well-represented on several national and regional technical committees, and hosted training seminars for public sector organisations on water-related issues, and seismic design of buildings. In keeping with the department's commitment to quality assurance and continuous improvement, five of the department's eight programmes were audited by accreditation agencies – the Joint Board of Moderators (JBM) under the UK-SPEC 2004 (Specification for Professional Engineering Competency). Furthermore, research work of relevance to the needs of the region has been undertaken, and is continuing.

#### *Department of Electrical & Computer Engineering*

Over the period 2010/2011, the Department spent much of its time and effort in preparing for an accreditation visit from the Institution of Engineering and Technology (IET). This visit resulted in the **re-accreditation of the Bachelor of Science (BSc)** degree for the 2010 intake to the 2012 intake, a major accomplishment. A monitoring review will be required in the 2012/2013 academic year to determine if accreditation would be extended to the 2014 intake. The Department also completed a Quality Assurance Review exercise coordinated by the Quality Assurance Unit at the St. Augustine Campus and continued the enhancement of various aspects of its programme of Teaching and Learning.

The Department is engaged in the study of mobile applications for small scale fisheries, multi-processor systems and linear circuit applications. It continued its innovative work in steelpan technology and energy efficiency. Its staff continued to publish scholarly research in international refereed journals and to deliver presentations at national, regional and international seminars and conferences.

The Department maintained collaborative arrangements with several regional and international institutions including the Caribbean Telecommunications Union, the

Latin American and Caribbean Collaborative Research Initiative, IBM, NVIDIA Corporation, MIT's NextLab, the Institute of Electrical and Electronic Engineers, Trinity College Dublin and the University of Calgary.

#### *Department of Geomatics Engineering and Land Management*

The academic year 2010/2011 was a good one for the Department as it continued to contribute at the national, regional and international levels both professionally and academically. Three members of staff were accepted as members of the Royal Institution of Chartered Surveyors (RICS). In addition, one member of staff was elected as President of the Atlantic Region of the Commonwealth Association of Surveying and Land Economy. Several other members of staff continue to serve on the executive of various local, regional and international organisations.

The Department along with URISA hosted a regional conference on Geographic Information Systems in Trinidad where more than twenty-five papers were presented. In addition, the Department hosted a national land conference where presentations by staff were well received. In total, more than 40 papers were published or presented at conferences by staff and students of the Department in the last academic year. The Department continues to be very active locally. In addition to providing professional services to several government agencies, the department has hosted several training courses and delivered many technical presentations to various stakeholders.

In the last academic year, the Department graduated forty-seven (47) undergraduate students and twenty-seven (27) graduate students. The high throughput at the graduate level has been maintained from the previous year. Both students and staff have been able to secure funds from various sources to support their research and publication efforts. The Department is therefore poised to have another successful academic year in 2011/2012.



*Department of Mechanical  
& Manufacturing Engineering*

Members of staff in the Department of Mechanical and Manufacturing Engineering have been actively involved in Research and Innovation. The fruits of the research conducted during the 2010/2011 academic year resulted in three MPhil/PhD graduates and nineteen (19) Journal Publications.

The five postgraduate programmes were well subscribed. The MSc programme in Engineering Asset Management started two years ago and is well subscribed with a total of 40 students. Three years ago, the Engineering Management Programme was offered in Guyana for Professional Engineers and the first graduates are expected in the next reporting period.

The Department finalised its curriculum review of the three undergraduate programmes (Mechanical, Mechanical with Biosystems and Industrial Engineering) and obtained the necessary university approvals in June 2010. Implementation of the first year changes began in September 2010 and that of the second year started in September 2011. The Department also had an accreditation visit by the Institution of Mechanical Engineers (IMechE) of the United Kingdom in May 2011 and **received reaccreditation for a 5-year period for the 2011 to 2015 intakes for all the Undergraduate programmes and three of the Postgraduate Programmes:** MSc in Production Engineering, MSc in Production Engineering and Management and MSc in Engineering Management.

## CHANGING CULTURE, PROCESS & QUALITY ASSURANCE

*Department of Chemical Engineering*

The Department undertook a strategic review of its operations between October-November 2010, facilitated by Consultants, GBest Trading Company Limited. This is further expanded upon in the Teaching and Learning section of this report. In addition, a team of assessors from the Institution of Chemical Engineers (IChemE) visited the department from April 18-19, 2011. Resulting from this visit was the re-accreditation of the BSc and MSc Programmes in Chemical and Process Engineering for a 5-year period, from student intake 2010 to 2015.

*Department of Civil & Environmental Engineering*

Since the launch of the restructured undergraduate and postgraduate programmes in 2010, five of the programmes were submitted for accreditation: BSc Civil Engineering and Civil with Environmental Engineering as well as the MSc Civil Engineering, Civil with Environmental Engineering and Construction Management. A subsequent visit by the JBM took place in November 2011. The JBM Accreditation team was comprised of six members including three regional contributors. The final report is to be submitted to the Department in the first quarter of 2012.

### Efforts to Improve Recruitment/Retention

The Department of Chemical Engineering made progress in its succession planning activities with the addition of new faculty members Drs. Saheeda Mujaffar, Carmen Riverol and Andres Marquez.

### Significant Training Initiatives

#### IDU Training Workshops Attended

Twenty-five (25) members of staff participated in various IDU Training workshops during the 2010/2011 Academic Year, including one member of staff who completed the Certificate in University Teaching & Learning (CUTL).

## Enrollment

### *Undergraduate*

For the academic year 2010/2011 the undergraduate intake for all programmes in the Faculty was 371 students, including 24 at the Mona Campus. This was 10% more than the previous year.

### *Postgraduate*

The Faculty attracted 272 new students into its taught Postgraduate Diploma/Masters programmes, a 13% increase from the previous academic year which had an enrollment of 223. New postgraduate enrollments in MPhil and PhD programmes of the Faculty remained at 18 students in 2010/2011. Research student enrollment is expected to remain low given the very good employment opportunities for lower level degree graduates in Trinidad and Tobago and the region for Engineers, Surveyors and Petroleum Geoscientists and the traditional lack of regional employment opportunities that fully utilise the skills of PhD and MPhil graduates.

### *Most Outstanding Students*

#### **Undergraduate**

In 2010/2011, the Faculty produced 297 graduates in the various disciplines as indicated in Table 4 below. This figure is 33% lower than the previous year when there were 369 graduates. Twenty-six graduates achieved First Class Honours, 50% less than the previous year.

#### **Postgraduate**

In 2010/2011, 143 students graduated from taught postgraduate programmes, an 11% decrease from the previous year which had a figure of 166 students. Twenty-eight (28) of these students graduated with Distinction. Five students graduated with research degrees: 3 MPhils and 2 PhDs. The following is the list of the PhD awardees and the titles of their respective theses:

PhD Food Science and Technology

#### **Mark Dookeran**

Title of Thesis: *'Quantitative Risk Assessment Model for Salmonella on Chilled Broiler Chicken Carcasses from Large-Scale Processors in the Republic of Trinidad and Tobago'*.

PhD Mechanical Engineering

#### **Dale Ramlakhan**

Title of Thesis: *'Solar Photocatalytic Detoxification of Industrial Waste Water in Trinidad and Tobago'*.

## STRATEGY APPRAISAL Teaching & Learning

### *Department of Chemical Engineering*

A new Head of Department was installed and the Faculty took the opportunity to forge a new strategy for the department's growth and development. To this end, during the first quarter of the academic year 2010/2011 the department undertook a strategic review of its operations facilitated by Consultants, GBest Trading Company Limited. Two major outcomes of this exercise were:

- (a) the revision of the Department's Mission Statement aligned with the University's Mission, viz. "To produce competent, innovative, entrepreneurial and civic-minded graduates, undertake relevant research and advance the Chemical, Food and Petroleum sectors in the Caribbean", and
- (b) the creation of four Committees - Human Resource Development, Stakeholder Relations, Centres of Excellence and Accreditation & Quality Assurance - to improve the quality and service of staff, to ensure enhanced and improved delivery to our students and other stakeholders.

The Department had a number of initiatives on stream, the two most critical being the re-accreditation of its BSc and MSc programmes in Chemical and Process Engineering by the Institution of Chemical Engineers (IChemE), UK up to July 2011; and the review of its Chemical and Process Engineering Curriculum to ensure the relevance of the courses being offered.

A team of assessors from the IChemE visited the Department from April 18-19, 2011. Emanating from this visit, the BSc and MSc Programmes in Chemical and Process Engineering were re-accredited for a 5-year period up to student intake 2015. During the same period, a team of assessors from Caribbean Accreditation Council for Engineering and Technology (CACET) was allowed to observe the proceedings.

The curriculum review is an ongoing exercise.

During the review period the Petroleum Geoscience and the Petroleum Engineering Programmes were merged into the Petroleum Studies Unit (PSU). The PSU also had an accreditation visit from the Institute of Materials, Minerals and Mining (IOM3) from March 16–18, 2011 which resulted in the re-accreditation of the MSc in Petroleum Engineering Programme for a 5-year period, from student intake 2010.

### *Department of Civil & Environmental Engineering*

The web-based application “My ELearning” and other ICT-based approaches are being increasingly used to provide students with always-available access to information.

### *Department of Electrical & Computer Engineering*

The Department continued the development of its Teaching and Learning processes. Accomplishments included adjustments to the BSc programme in line with recommendations of the Quality Assurance Review and the IET panel; and the proposed enhancement of “Communications across the Curriculum” with the

introduction of a new course ECNG 3033 Communications Skills for Engineers II.

## Graduate Studies

The Department of Civil & Environmental Engineering continued its demand-driven approach to teaching and learning and this led to the maintenance of enrollment levels across the board.

The Department of Electrical & Computer Engineering completed revision of its MASc Programme in Electrical and Computer Engineering in accordance with the UK Standards for Professional Engineering Competence published in 2008 by the Engineering Council of the UK. These were designed to satisfy the educational requirements for Chartered Engineers. The revised programme has been approved by The University and is being introduced in the 2011/2012 academic year.

## Research & Innovation

### Research Agenda

The faculty’s Research and Innovation Committee completed its mandate of drafting a proposal on how the UWI could best address the challenge stated in the Strategic Plan 2007-2012 for improving its Research and Innovation portfolio. The proposal, which was accepted by Faculty Board, endorsed the approach described in the UWI Strategic Plan 2007-2012 document regarding the urgent need for increased levels of innovation to support Caribbean economic growth and sustainability. It proposed a structure for a Caribbean-wide Innovation System that would not only see the expansion and improvement of business opportunities supported by UWI development activities but would also seed and direct more meaningful and higher levels of UWI’s pure and applied research portfolio.

### *Department of Chemical Engineering*

The Chemical Engineering Unit, carried out research in the areas of simulation and control, biofilms, interfacial science, and production of biodegradable plastics from brewery and sugar containing wastes.

The Food Science & Technology Unit (FSTU), carried out work in food safety; risk assessment; root crop flour characterisation and utilisation; drying, and product development & quality evaluation continued to be the core areas of research.

In the Petroleum Studies Unit (PSU), research continued to be focused on heavy oil reserves and their methods of exploitation; reservoir heterogeneities; reservoir fluid analysis; reservoir simulation studies, gas hydrates; gas monetisation, micropaleontology, CO<sub>2</sub> injection into reservoirs; and alternative energy strategies. A proposal for a Heavy Oil Research Centre was prepared by the PSU and submitted to BHP through the Business Development Unit.

*Department of Civil & Environmental Engineering*

Work continued in research on sustainable soil reinforcement (Dr. Mwashu) and improved dynamic analysis of structures under earthquakes (Dr. Clarke).

*Department of Electrical & Computer Engineering*

The Department has developed a policy framework for engaging in research and innovation which guided its research and innovation activities. The Department continued to publish scholarly research in international refereed journals and to deliver presentations at national, regional and international seminars and conferences.

**Projects Completed**

*Department of Chemical Engineering*

Raffie Hosein, Wayne Bertrand, and Richard Dawe  
*Heavy Oil Recovery in Trinidad and Tobago: Past, Present and Future*

The Petroleum Studies Unit (PSU) conducted a review of the history of Enhanced Oil Recovery (EOR) projects in Trinidad, including those currently active and outlined screening criteria, monitoring practices and best operation practices gained from these projects. Ways to produce the remaining heavy oil resources both on land and offshore and the utilisation and sequestration of CO<sub>2</sub> have also been discussed.

Trinidad has heavy oil and tar sands resources of about 5 billion barrels in total, on land and off the West Coast. Despite having a production history of over 100 years, much less than about 10% of this oil has been produced. Recovery of these resources requires conventional enhanced oil recovery projects and pilot testing of techniques such as SAGD, VAPEX, CHOPS and mining. Currently heavy oil contributes about 25,000 bopd of the country's total oil production of about 90,000 barrels of oil per day. About 85% is via primary production (including foamy oil) and the other 15% mainly through small scale projects consisting of steam flood, carbon dioxide (CO<sub>2</sub>) flood and Water Alternating Steam Process (WASP).

The PSU is making all efforts to establish Heavy Oil Research Studies. It is believed that Trinidad has the ability to recover over 40% of the remaining heavy oil resources, as a consequence of the experiences gained, operational practices established and successes achieved by the local oil company (PETROTRIN) over the last 40 years.

Two papers were published on the topic this year in the Oil and Gas Journal (Sept 5 and Oct 3)

Brendan Figueira, Jill Marcelle De Silva, Wayne Bertrand (UWI), Dr. Wanda-Lee DeLandro-Clarke (Ministry of Energy and Energy Industries).

*Delineation of Oceanic Gas Hydrates in the Block 27 area Offshore Trinidad*

In this study, which is the first attempt at delineating and characterising potential oceanic hydrate bearing sediments in the Atlantic Continental Margin offshore Trinidad, three-dimensional seismic data for the Block 27 area were examined.



Accumulations of natural gas hydrates, a solid form of natural gas, are increasingly viewed as a potential economic natural gas resource since the estimated total global volume of methane in these deposits is significantly larger than that found in conventional gas reservoirs.

The dataset covered an area of approximately 1788.6 km<sup>2</sup> of transition zone between the continental shelf and slope in the Columbus Basin. Analysis of the data showed the presence of several positive indicators which suggest that natural gas hydrates are present in the sediments. The hydrates are estimated to occur over 516.8 km<sup>2</sup> or approximately 29% of the mapped area. Given these favourable results and the fact that the local utilisation of natural gas has increased significantly over the last decade, this research effort is being expanded into other offshore blocks.

#### *Department of Civil & Environmental Engineering*

Drs. Rupert Williams and Gyan Shrivastava worked on a joint venture project with the Massachusetts Institute of Technology (MIT) investigating the **use of CAD/CAM integrated systems to develop modular customised systems** that can be readily used in the construction industry. This project, completed around July 2011, was conducted over the last two and a half years or so through collaborative efforts with a research team at MIT. The result of this project will be highlighted in the *Automation in Construction* journal (vol 21, 2012, p. 114-120).

#### *Department of Geomatics Engineering & Land Management*

The Department engaged in postgraduate research in a variety of areas relevant to the development of the region such as investigations into the causes of flooding in Georgetown Guyana, Diego Martin, Trinidad and along Trinidad's Northern Range.

## Service to UWI-12+1 Countries and Other Underserved Communities

Discussions continued with the Open Campus to partner in the delivery of its Pre-Engineering programme that primarily targeted the provision of increased access to UWI 12+1 and other underserved communities.

## OUTREACH

The Faculty hosted an **Open Day** on Thursday May 19, 2011 at the JFK Auditorium. The primary purpose of the Open Day was to provide visitors (teachers, students, parents, corporate, industrial and governmental representatives, the university community and the general public) with information about UWI in general, but more specifically, the Faculty of Engineering's study programmes and facilities. Prospective students had the opportunity to get a feel for university life.

#### *Department of Chemical Engineering*

During the review period Dr. Chakrabarti continued his research collaboration on Multiphase Flow with Professor Gargi Das, Indian Institute of Technology, Kharagpur, India. The FSTU continued its root crop project and a Food Safety Risk Mitigation Project with the Caribbean Agriculture Development Institute (CARDI) and the Inter-American Institute for Cooperation in Agriculture (IICA). Through the Engineering Institute, the FSTU continued its collaboration on product development and quality evaluation with the Trinidad & Tobago Agribusiness Association (TTABA) and with the Windward Islands Farmers' Association (WINFA).

#### *Department of Civil & Environmental Engineering*

Dr. Vincent Cooper, representing the water group, facilitated the delivery of water-related short courses to numerous public and private sector organisations, May/ June 2011. This initiative was funded through the EDULINK project for building capacity in the water sector in the Caribbean.

Dr. Richard Clarke, via the Engineering Institute, delivered a course on “Seismic Design of Buildings for Practicing Civil Engineers” in September / April 2011, to staff of the Ministry of Works and Transport of the Government of Trinidad and Tobago.

#### *Department of Electrical & Computer Engineering*

The Department maintained collaborative arrangements with several regional and international institutions including the Caribbean Telecommunications Union, the Latin American and Caribbean Collaborative Research Initiative, IBM, NVIDIA Corporation, MIT’s NextLab, the Institute of Electrical and Electronic Engineers, Trinity College Dublin and the University of Calgary. The results have included joint research programmes leading to journal publications, student exchanges and inputs to curriculum development. In particular, the Department has been designated an NVIDIA CUDA Teaching Center by the NVIDIA Corporation.

#### *National Engagement*

##### *Department of Chemical Engineering*

Staff members continue to represent the department on Conference, Seminar and Workshop Committees, State Boards and Cabinet-Appointed Committees. The department also continued to collaborate and to consult with local, regional and international institutions and agencies.

##### *The Engineering Institute*

The Faculty through its Engineering Institute continued to contribute to regional development through outreach activities in research, training and consultancies. Its major activity continues to be the delivery of courses for continuing professional development (CPD). During the period under review, the Institute delivered 14 short courses and 15 projects were in progress.

#### **External Links**

The Faculty thanks the following entities with which it engaged in discussions and initiatives over the review period:

- Association of Professional Engineers of Trinidad & Tobago (APETT)
- Board of Engineering of Trinidad & Tobago
- bpTT (Endowed Senior Position in Reservoir/Petroleum Engineering)
- Caribbean Telecommunications Union
- CEP Limited
- CISCO Academy
- CL Energy Services Limited
- GBest Trading Company Limited
- IBM
- Indian Institute of Technology, Kharagpur, India
- Industrial Gases Limited
- Microsoft
- MIT’s NextLab
- NASA
- Neal & Massy Motors
- NVIDIA Corporation
- PCS Nitrogen Trinidad Limited
- Petrotrin
- Phoenix Park Gas Processors Limited
- Powergen
- Sponsors of Prizes at Annual Prizes & Awards
- T&T National Petroleum Marketing Company Limited
- The Institute of Electrical and Electronic Engineers
- The Latin American and Caribbean Collaborative Research Initiative
- The University of Calgary
- The University of Trinidad and Tobago
- Trinidad and Tobago Methanol Company (TTMC)
- Trinity College, Dublin
- Trintoplan Consultants Limited
- UNESCO-IHE (Edulink Project including COSTATT, the University of Guyana and WASA).
- Unilever Caribbean Limited
- URISA
- WASA (The Water and Sewerage Authority of Trinidad & Tobago)

## REVENUE GENERATION

The Faculty generated just over TT\$4 million by hosting short professional development courses, its Summer School programme and three self-financing MSc programmes. Meanwhile, the Classroom Technology Support Unit (CTSU) continued its drive to equip all lecture rooms with audio/visual equipment according to the Penn State standards for classrooms and to provide technical support. This ongoing exercise has resulted in substantial cost containment. The CTSU has also provided support to the Centre of Language and Linguistics and the Faculty of Medical Sciences.

## PROJECTED ACTIVITIES

### *Department of Civil & Environmental Engineering*

#### **Flooding Studies**

In 2011/2012, the Water Group (Dr. Cooper) will focus on establishing the Acono River Catchment as an experimental catchment. This will facilitate research work in understanding the hydrologic response of the steep catchments of the Northern Range that can lead to effective and long-lasting solutions to hydrologic related problems such as flooding, landslides and sedimentation.

The work will build on two recently completed graduate research projects that determined estimates of sediment loadings due to the prevailing land use activities, including a limestone quarry. The focus this year will be on developing an instrumentation network for hydro-meteorological measurements and the understanding of the physical features of the catchment via satellite imagery, engineering surveys and various field investigations.

The Water Group (Dr. Shrivastava) would also like to embark on a project to develop public awareness packages about the opportunities and challenges of rivers, and to appreciate the similarity of opportunities and challenges with those of the world's large rivers. It is proposed that video-photography, animation and local television media be used to sensitise the population in this regard.

#### **Soil Erosion Control**

The Materials Group (Dr. Mwashu) has proposed the development of sustainable soil reinforcement to preclude slope stability failure and excessive erosion due to torrential rain. The project entails developing appropriate solutions that depend on the level of exposure, and provide dissemination materials for stakeholders.

#### **Seismic Thin Masonry Walls and Hurricane Resistant Roofing**

The Structures Group (Dr. Clarke) proposes to continue work on improving the seismic performance (to acceptable levels) of residential structures built with legacy masonry blocks otherwise deemed inadequate. Work is to also continue (assuming the release of funds) on the construction of a prototype house with a new previously developed experimental hurricane resistant roof.

### *Department of Electrical & Computer Engineering*

The Department is working towards the submission of an accreditation application for the MASc programme. It will continue to enhance its research programme while improving its undergraduate offering.

## **DISTINGUISHED VISITORS**

**Professor John Allpart**

*Member, IMechE Accreditation Team*

**Prof. David Baker**

*Rochester Institute of Technology  
Chair, Caribbean Accreditation Council for Engineering and Technology  
(CACET) Accreditation Team*

**Dr. Robert Best**

*Pro Dean (Operations)  
Faculty of Engineering, Science and Built Environment  
London South Bank University  
London, United Kingdom  
(Chair, Institution of Chemical Engineers [ICChemE] Accreditation Team)*

**Dr. Noel Brown**

*University of Technology  
Jamaica  
Member, CACET Accreditation Team*

**Ms. Helene Burd**

*Accreditation Manager and APDC Secretary  
Institute of Materials, Minerals and Mining (IOM3)  
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**Dr. Geoff Duckworth**

*Manager of Process  
Lycopodium Minerals Qld Pty Limited  
Queensland, Australia  
Member of ICChemE Accreditation Team*

**Professor Barry Evans**

*University of Surrey  
Institution of Mechanical Engineers (IMechE) Accreditation Team*

**Dr. Jarka Glassey**

*Senior Lecturer  
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**Mr. Rodney R. Jagai**

*Member, CACET Accreditation Team*

**Mr. Andrew Jupiter**

*Member, CACET Accreditation Team*

**Mr. Saad Mohammed**

*Member, CACET Accreditation Team*

**Professor Linda Rabj**

*Member IMechE Accreditation Team*

**Prof. Frank R. Sale**

*School of Materials  
University of Manchester, United Kingdom  
(Chair IOM3 Accreditation Team)*

**Dr. Nilza Justiz Smith**

*University of Technology  
Jamaica  
Member, CACET Accreditation Team*

**Professor Joe Tatler**

*Member, IMechE Accreditation Team*

**Dr. Adel Al Taweel**

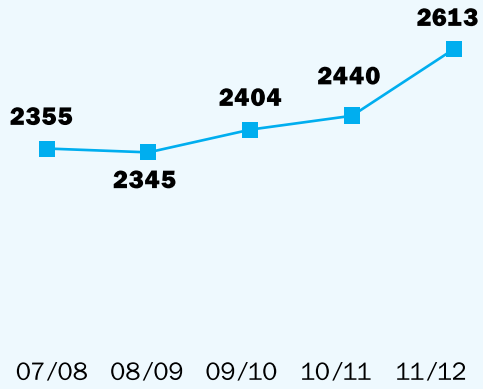
*University of Trinidad and Tobago  
Member, CACET Accreditation Team*

**Professor Ed Williams**

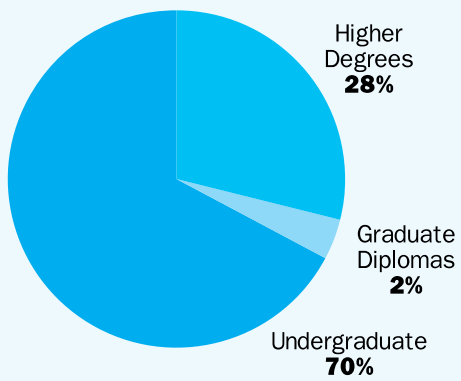
*Member, IMechE Accreditation Team*



**GROWTH IN ENROLMENT  
2007 – 2012**



**GRADUATES BY PROGRAMME  
2007 – 2012**





FACULTY OF  
**HUMANITIES  
& EDUCATION**

**PROFESSOR FUNSO AIYEJINA**  
DEAN, FACULTY OF HUMANITIES AND EDUCATION



## EXECUTIVE SUMMARY

In the academic year 2010/2011, the Faculty of Humanities and Education (FHE) was determined to fulfill its objectives in accordance with the University's Strategic Plan in the key areas of Teaching and Learning, Graduate Studies, Research and Innovation, and Open Campus, in spite of gross staff and space shortages. The Faculty also remained committed to its outreach goals and objectives.

In its focus on Teaching and Learning, the FHE continued to rationalise its offerings and to develop new undergraduate and graduate programmes and courses. The Faculty successfully developed and mounted an Undergraduate Certificate in Journalism in response to industry demands.

It paid attention to developing and implementing mechanisms to improve learning effectiveness. The Faculty also remained committed to designing courses for different modes of delivery, and e-learning was introduced on a higher scale in all departments and units. In collaboration with the IDU and CITS, FHE mounted training programmes and developed a user handbook for staff with respect to the use of the myElearning platform to deliver course material to students.

FHE also remained committed to expanding its Graduate Studies programmes and developed and implemented an **MA in Creative Design** as well as a **Pre-Service Postgraduate Diploma in Education**. The Faculty also focused on enhancing the quality of its postgraduate programmes by implementing an approved proposal for Cultural Studies Examination by Practice, embedding Information Literacy in graduate programmes at the School of Education. Graduate students in the Diploma in Interpreting Techniques programme received hands-on experience as they engaged in international conferences. There was a steady increase in graduate student enrollment.

With respect to Research and Innovation, the Faculty identified two major research clusters, namely:

1. *Arts, Cultures and Theories of the Caribbean*
2. *Improvement and effectiveness of Public Education at the Early Childhood, Primary School and Secondary School level*

A discussion group was formed in February 2011 at the School of Education to facilitate intellectual interactions among staff and to organise for staff to share and discuss their research. A number of staff members at the Faculty engaged in collaborative research with local, regional and international partners. The Faculty also received grants/funding for some eleven research projects.

FHE hosted and/or was involved in a number of outreach activities and hosted two major conferences in 2010/2011. It also held a number of workshops and seminars. The Department of Creative and Festival Arts successfully held approximately 30 productions and exhibitions, many of which focussed on the Haitian Experience. The Film programme also successfully held film screenings and was an active collaborator in the Trinidad and Tobago Film Festival.

A number of the FHE's staff members received higher qualifications, with two staff members defending doctoral studies. A number of staff received training from the IDU to enhance their teaching performance.

The highest enrollments in the FHE were in the Communication Studies, English Language and Literature with Education (ELLE), and BEd (Educational Administration) programmes.

## STUDENTS Enrollment

The Faculty of Humanities and Education had a total undergraduate enrollment of 2,032 students and a total graduate enrollment of 914 students in the academic year

2010/2011. This compares with a total undergraduate enrollment of 2,200 students in 2009/2010. The graduate enrollment in 2009/2010 was 569.

The areas of Communication Studies, English Language and Literature with Education (ELLE), Film and BEd (Educational Administration) continued to be the most popular programmes.

## GRADUATION Undergraduate

Five hundred and forty-four (544) undergraduate degrees were awarded by the Faculty, of which 411 were Bachelor degrees, including 42 First Class Honours degrees.

### *Top Undergraduate Students in the academic year 2010/2011*

The top Bachelor of Arts degree graduating student was **Ms. Nikita Alcalá** who majored in Visual Arts.

The top Bachelor of Education degree graduating student was **Ms. Kathy Ann Ali** who majored in Primary Education: Educational Administration.

## Postgraduate

The Faculty awarded 377 postgraduate degrees, of which 7 were MPhil degrees and 4 were doctorates. The 4 doctoral degrees were as follows:

**Francisca C. Allard** – Cultural Studies

**Shalini L. Singh** – Cultural Studies

**Stephen N.M. Geoffroy**

(With High Commendation) – Education

**Joseph H. Sanchez** - Education

## Student Achievements

**Mr. Dextrall Peters**, History First Class Graduated received five awards including the Neville Hall Prize for the Most Outstanding Level III History Student at the Faculty's Annual Prize Award Ceremony 2010/2011. He was also selected to be the Faculty's valedictorian at the Graduation Ceremony 2010/2011.

Seven students from the Film Programme showed films at the 2010 Trinidad and Tobago Film Festival (TTFF). Film student, **Sigmond Cromwell** (director), received the People's Choice Award at the TTFF for his film *The Blood and the Bois*. Fellow student, **Renee Polonais** directed the film *Quiet Desperation* which won the Best Actor and Best Actress Awards at the TTFF. Two student films *Caribbean Skin*, *African Identity* (dir. **Mandisa Pantin**) and *Quiet Desperation* were selected for the 2011 edition of the Zanzibar International Film Festival in Tanzania.

## STRATEGY APPRAISAL

Following are the Faculty of Humanities and Education's (FHE) significant achievements at the end of the period 2010/2011 as related to the core objectives of the University's Strategic Plan:

## Teaching and Learning

### *New Undergraduate Programmes*

The **BEd Primary (General)** degree was designed and approved in 2010/2011 in response to market forces. The first cohort to this programme started in July/August 2011. In addition, a new **Pre-Service BEd Programme** was designed and approved in 2010/2011. This was in response to the closure of Teachers' Colleges and a new directive from the Trinidad & Tobago Ministry of Education stating that only persons with professional qualifications would be employed in the teaching service.

The Faculty introduced a **Certificate in ICT Curriculum Integration** (approved in 2010/2011), an Undergraduate **Diploma in Caribbean Sign Language** (approved in 2009/2010, first cohort started in 2010/2011) and a **Certificate of Education for School Librarians** (approved in 2009/2010, first offered in 2010/2011). Meanwhile, the **Certificate in Dance and Dance Education**, and the **Practitioners Certificate in Drama/Theatre-in-Education** programmes were approved by the University and funded by The Tobago House of Assembly for teaching in Tobago in the 2010/2011 academic year.



## *New Courses*

Eight new courses were either introduced or approved during the academic year under review. They included three history courses, three in Film/Cinema and one in Visual Arts. The Minor in Caribbean Sign Language, approved the previous year was available for offer in 2010/2011.

## *Improving Programme & Course Quality*

Recommendations coming out of Quality Assurance Reviews were implemented in all departments and units and curriculum reviews were conducted in the following programmes:

- *Certificate in Musical Arts*
- *BA Musical Arts*
- *BEd programmes*
- *Film Studies and Film Production programmes*
- *Linguistics programme*
- *Minor in Spanish*
- *Carnival Studies programme*

A review of assessment methods was conducted for Communication Studies courses, Linguistics courses and courses in the Film and Visual Arts programmes.

The French-Lexicon Creole Course was reoriented to focus on Haitian Creole in order to service experts going to Haiti to provide support in response to the Haitian earthquake tragedy. Discussions were held with the Institute in Jacmel, Haiti, to establish a partnership with the UWI St. Augustine Film Programme.

The Faculty engaged in the development of an undergraduate Practitioner's Certificate in Carnival Studies and a new Foundation English Course was designed for the Certificate in Music (approved in 2010/2011). Meanwhile, the School of Education has continued inter and cross-faculty discussions regarding the development and design of double major programmes. The intention is to have programmes that will attract incoming students to teaching careers by

providing them with opportunities to enhance their knowledge and skills in the respective content areas while at the same time exploring educational theory and practice, including being involved in planning for teaching, observing classroom teaching and some degree of classroom practice.

The Faculty identified courses with low intake and marked them for review and possible withdrawal. Modification of existing courses took place in all departments and units where applicable.

## *Improving Learning Effectiveness*

The School of Education continued its BEd online programme. Approximately 55 new students joined the programme in 2010/2011. The School continued to design courses for blended modes of delivery (online and face-to-face).

During 2010-2011, the School of Education's efforts in Tobago were strengthened. In addition to the Dip Ed Science programme (offered for the second year), Modern Languages and Mathematics were each offered for the first time- bringing the total to three curriculum areas in Tobago. In addition, the BEd ECCE programme was continued for the second year. Both programmes were delivered in the face-to-face mode. This effort has been facilitated by the Dean of the Faculty of Humanities and Education, the Campus Principal and the Tobago Hospitality and Tourism Institute.

Use of e-learning was expanded across all departments and units. Staff received training in the use of myElearning and a supporting handbook was developed in August 2011. Lecturers in the Departments of History and Liberal Arts designed courses for blended modes of delivery (online and face-to-face). Discipline appropriate software has been implemented in various programmes at the Department of Creative and Festival Arts and the Centre for Language Learning (CLL). The CLL is considering implementing a learning management

system for foreign languages from TELLMEMORE of Canada, following a demonstration at the Centre in October 2010. The Faculty conducted an electronic examination pilot project for the Caribbean Civilisation course. This allowed students to write the exam from any computer without having to attend a specific venue.

The Linguistics Section of the Department of Liberal Arts used video conferencing technology to offer courses in Caribbean Sign Language Interpreting for the first time to local interpreters. This was done in collaboration with their counterparts at the Mona Campus.

The Department of Liberal Arts and the Office of the Dean continued to work on producing *A Self-Preparatory Handbook for the English Language Proficiency Test (ELPT), Functional Tertiary English and Functional Applications of Work on Tertiary English Language Learning*

#### *Opportunities for Internships*

The **Film Programme** collaborated with several companies to create internship/on-the-job training for its students. Organisations included the Government Information Service Limited (GISL), Diamond Films Limited and Mbele TV.

The **French Section** of the Department of Liberal Arts has, through agreements with international organisations, provided opportunities for students to teach English at French Primary and Secondary Schools. This year 12 students spent the academic year doing just that. Nine of these students are returning in September 2011 to complete their BA French degrees at UWI. An unprecedented number of 17 current or past UWI students have received postings in French Schools for the next academic year (2011/2012).

More **Study Abroad** programmes were made available through the French and Spanish Sections of the Department of Liberal Arts through partnerships with universities in France, Guadeloupe, Martinique, Brazil and Colombia. Other students in the FHE such as those in the Film Programme also participated in Student Exchange Programmes with international universities.

#### *Teacher Quality*

This year, 71 faculty members participated in five workshops held by the Instructional Development Unit (IDU) on Orientation to University Teaching (14), CUTL Orientation (4), MHED Orientation (1), Managing Your Course in Mylearning (4), Academic Advising (12) and Advancing Teaching Learning with Technology (35). In addition, the Faculty of Humanities and Education is pleased to acknowledge the following members of staff who received Higher Qualification:

#### *Centre for Language Learning*

**Maria Landa Buil** successfully defended her PhD Dissertation in December 2010

#### *Department of Creative and Festival Arts*

**Jo-anne Tull** successfully defended her PhD Dissertation in May 2011

#### *Department of Liberal Arts*

**Arlette Antoine** earned her MSc in Industrial Innovation, Entrepreneurship and Management

**Savrina Chinien** obtained her MPhil in Film from Bordeaux 3 University

**Jairo Sánchez** completed the [2011] Postgraduate Certificate in University Teaching.

## Graduate Studies

### *New Programmes*

- Master's in TESOL  
(first cohort started in 2010/2011)
- MA Creative Design: Entrepreneurship (DCFA)  
(approved in 2010/2011)
- Pre-service Post-graduate Diploma in Education  
(approved in 2010/2011)

### *Graduate Programmes*

A number of new postgraduate programmes are currently being designed or revised to meet the needs and expectations of potential students and Caribbean society. Among them, a **Master's in Educational Leadership** designed in 2010/2011 with the expectation that all approvals will be obtained for a September 2012 start. In the field of arts and entertainment, a new **Postgraduate Diploma in Animation** is under consideration (DCFA) and work has begun on postgraduate programmes in Film. The Diploma in Arts & Cultural Enterprise Management (ACEM) saw a 65% increase leading to a proposal to upgrade the Diploma to an MA degree.

The Faculty is continuing to extend its reach into the Caribbean and Latin America, providing students with opportunities for a richer university experience. The Department of History started work to assist **Anton de Kom University** of Suriname in the design, development and delivery of an **MA History** programme, while the Spanish Section of the Department of Liberal Arts started discussions with a view to offer a **joint MA Latin American Studies** between the **Universidad Nacional de Costa Rica** and The UWI.

### *Quality Enhancement of Graduate Programmes*

The Faculty is continuously reviewing its programme offerings to identify gaps and to seek opportunities for improvement. One major initiative undertaken this year was the implementation of a proposal for embedding **Information Literacy** in the programmes offered by

the School of Education. This was done by delivering sessions to Postgraduate Diploma in Education students on Understanding Information Literacy, Understanding Academic Research and Ethical Issues in Academic Research.

Students in the **Postgraduate Diploma in Interpreting Techniques**, offered by the Department of Liberal Arts, were able to engage in observation sessions at international conferences where they were able to follow proceedings and familiarise themselves with conference terminology and listen to seasoned interpreters at work. These students can also now choose to work with their lecturers at various events for their Practicum thus receiving hands on experience. A similar change was put into effect for students reading for the Cultural Studies Examination, whereby they can opt to do a Practicum instead.

### *Graduate Student Support*

As part of the effort to increase enrollment in Graduate Studies, the FHE has begun to identify promising students in first degree programmes and to encourage them to return to undertake graduate studies. The Faculty has established a **Postgraduate Staff/Student Liaison Committee** and a special Cultural Studies research group was formed for MPhil and PhD students, allowing them to present their ongoing research, provide comments and engage in discussions. Additionally, there are now tutorials on analysing qualitative data and discussions of central theoretical models and concepts.

## Research and Innovation

### *Research Clusters*

The FHE engaged in a number of interesting research projects surrounding two major research clusters - **Arts, Cultures and Theories of the Caribbean** and **Improvement and Effectiveness of Public Education at the Early Childhood, Primary School and Secondary School level**.

**Research Discussion Group**

In February 2011, the School of Education established a discussion group committee. The purpose of the committee is to facilitate intellectual interactions among staff by organising fora for staff to share their research and/or discuss issues of educational significance.

**Research Collaborations**

The following staff members engaged in collaborative research with international partners:

**School of Education**

**Jerome DeLisle**, was the lead researcher (Trinidad and Tobago) in an international project on *Data Driven Decision Making*. This is an international comparative data use study involving ten countries, including, USA, Canada, Britain, Belgium, South Africa, and Trinidad and Tobago. The Principal Investigator is Kim Schildkamp, University of Twente (Netherlands).

**Carol Logie** - Lead researcher in collaborative research projects involving the University of the West Indies' Early Childhood Care and Education Project and Syracuse University, College of Human Ecology and Family Studies. The projects are national surveys on (i) Childrearing beliefs and practices in Trinidad and Tobago, and (ii) Health, wellness and parenting practices in Trinidad and Tobago. Dr Logie is also involved in a study on *The impact of In-Service Training on Early childhood Teachers A comparative Study*. Participating counties are Trinidad and Tobago, The Commonwealth of Bahamas, China/Hong Kong and Australia.

**Sharon Phillip-Peters and Desiree Augustin** represented the School of Education on a Caribbean poetry collaboration project between the University of Cambridge, UWI, Mona and UWI, St. Augustine.

**Family Development and Children's Research Centre (FDCRC)**

**December 2010.** VIDEO on *Voices of Children at Work: An Examination of Early Childhood Curriculum Approaches and Content* – completed. Two DVDs are being prepared to guide the planning and implementation of effective strategies in Early Childhood Care and Education (ECCE) curriculum as well as to serve as a model in other ECCE centres

**October 2010 – May 2011.** Over (3800) children and adults in Trinidad and Tobago have been impacted, as part of the global initiative “*Reconnecting the World's Children to Nature*”, in collaboration with the World Forum Foundation, the Clinton Global Initiative and (70) participating countries, to reconnect 2 million children and their families around the world to nature. Study launched in October 2010 and in final implementation phase

**October 2010.** Three UWI – FDCRC staff members sponsored by The World Forum for Early Care and Education accessed training at **The Arbor Day Foundation in Nebraska**, on Nature, research and learning

**Department of Liberal Arts**

**Dr. Maarit Forde** of the St. Augustine Campus and **Dr. Yanique Hume** of the Cave Hill Campus jointly researched *Anthropological Perspectives on Death and Mortuary Rituals in the Caribbean*

**Dr. Nicole Roberts** was awarded a position as Scholar in Residence at the University of California at Berkeley. The position was as a member of the Beatrice Bain Research Group

### *Department of History*

**Collaborative Research Project** – Members of staff of the Department of History, led by Dr **Rita Pemberton**, collaborated with a group of international scholars comprising Professor Elisee Soumon of the Department of History and Archaeology at Abomey, Calavi of IBERDA (Institut d'Etudes et de Recherche sur la Diaspora Africaine), Benin, West Africa; Dr. Kaori Kadoma of the Department of Research on History of Science and Health, Casa de Oswaldo Cruz, Brazil; and Dr. Tania Salgado Pimenta of the Department of Research on History of Science and Health, Casa de Oswaldo Cruz, Brazil on a symposium on "Health and Development in Africa and the African Diaspora: Benin, Brazil and the British Caribbean."

The Department worked with the Mason Hall Community to restore a historical site in Tobago and with the Emancipation Support Committee for the establishment of a Caribbean Network Radio Programme.

### *Research Grants*

**The School of Education (SOE) received Research Grants from the Campus Research and Publication Fund as follows:**

**Susan Herbert** (Project leader) and SOE team: "Evaluation of the Diploma in Education programme (2004-2009)."

**Freddy James:** "The impact of school violence on secondary victims in secondary schools in Trinidad and Tobago."

**Sabeerah Abdul-Majied:** "An international comparative study on Data Use: Data Use in Early Childhood Care and Education in Trinidad and Tobago."

**Jeniffer Mohammed:** "Qualitative Research: Biography Project"

**The Department of Liberal Arts received Research Grants as follows:**

**Dr. Maarit Forde** (principal applicant) and Dr. Yanique Hume (co-applicant, Lecturer in Cultural Studies, Cave Hill) received a grant from the Wenner-Gren Foundation (USA) to organise a workshop entitled "Passages and Afterworlds: Anthropological Perspectives on Death and Mortuary Rituals in the Caribbean". The workshop took place at Cave Hill, Barbados on June 6-8, 2011. The 17 participants were anthropologists who specialised in Caribbean religions and rituals, including Richard and Sally Price, Aisha Khan, Patrick Bellegarde-Smith, George Mentore, and Paul C. Johnson. Revised versions of selected papers are to be published as an edited volume, eds. Maarit Forde and Yanique Hume.

**Dr. Jean Antoine** received Campus Research and Publications Grants for a research project on Derek Walcott.

**Dr. Benjamin Braithwaite and Ms Kathy-Ann Drayton** received a grant for research into Trinidadian Sign Language.

**The French Section** obtained a funding from the French Embassy to the amount of TT\$11,000 for the subscription to the French Satellite system (Canal Satellite Caraïbes), which is located in the Centre for Language Learning, and for the purchase of teaching material. The Section also received a retroactive grant of around EC\$9,000



(approximately TT\$19,000) from the French Regional Cooperation Delegation based in St Lucia to offset some of the costs associated with the hosting of the 11<sup>th</sup> Foreign Language Theatre Festival that took place in May 2010 at St Augustine.

**Dr Louis Regis** was awarded a Staff and Graduate Research grant to develop databases of the Calypso Tent (1921-2011) and Calypso Competitions 1939-2011.

### *Publication Summary 2010/2011*

FHE staff produced a number of publications in the review period as listed below.

- Books – total of 13
- Chapters in Books – total of 22
- Conference Proceedings – total of 3
- Articles – total of 41
- Exhibitions – total of 2
- Presentation of Papers at Conferences – total of 93
- Other – total of
  - 5 reviews
  - 2 online databases
  - 1 Reports
  - 3 other

## **OUTREACH**

The Faculty hosted/was involved in the following events during the academic year 2010/2011:

### *Conferences*

- Conference to commemorate the 40<sup>th</sup> Anniversary of the Black Power Disturbance in Trinidad and Tobago – September 2010 (Department of History)
- *New Geographies: Studies in Postcoloniality and Globalisation* (Department of Liberal Arts)

### *Lectures, Seminars, Forums, Workshops*

#### *Department of Creative and Festival Arts:*

A 3-day **Dance Education Workshop** was organised in Tobago in April 2011 in conjunction with the Division of Culture (Tobago), Ministry of Education (Curriculum Division) and facilitated by the Edna Manley College for the Visual and Performing Arts. This workshop catered for dance teachers and was intended to increase their knowledge and skills thereby enhancing their performance in this relatively new area of the curriculum

The Carnival Studies Unit dedicated the month of March to highlighting the impact and significance of entrepreneurship in the creative industries of the Caribbean, both as a research agenda and as business practice. ***Creative Entrepreneurship Month*** was launched in 2011 to foster entrepreneurial skills and the entrepreneurial mindset in the arts and culture among UWI students. It brings together UWI students who are reading for courses related to the business of the arts and entrepreneurship, with industry stakeholders. This includes graduates of the Department of Creative and Festival Arts, as well as those from the Faculties of Humanities and Education and Social Sciences with an interest in the field and creative industry stakeholders.

The schedule of events included weekly guest lecturers by international and regional creative entrepreneurs as well as visiting and local academics and researchers in the field; and a library showcase featuring work/research reflecting the Caribbean's contribution to the field.

Students from the CANV 2012 Enterprise Internship in the Arts class, simulating an artist management company also hosted a showcase which was the culmination of their in-class project. They performed at the UWI's Staff Social Club before an audience which included music industry stakeholders.

## *School of Education*

During the year under review, 391 teachers participated in seven one-day workshops hosted by the School of Education. Of the seven workshops, three were held in Tobago. There was also a two-day workshop on Effective Classroom Management for 100 de-shifted secondary school teachers.

## *Dialogues 2010-2011*

This annual event showcases the rich research and publication thrust of the Department of Liberal Arts. This pattern of collaborative publishing has also created opportunities for mentoring young scholars as well as for graduate students to break into the challenging field of academic publishing.

Dialogues 2010/2011 held in November 2012 at the Centre for Language Learning, saw the launch of ten book-length publications within the Department, including:

*Language Education and Policy in Fiji: A Culturometric Investigation of Ethnic Values. Vols 1 & 2* by **Béatrice Boufof Bastick** (Lambert Academic Publishing 2010);

*Ancestories: Readings of Kamau Braithwaite's Ancestors* by **Professor Emeritus Gordon Rohlehr** (Lexicon 2010);

*Moving Right Along: Caribbean Stories in Honour of John Cropper* edited by **Funso Aiyejina** with Judy Stone;

**Barbara Lalla's** *Cascade: A Novel* (UWI Press 2010), Winner of the UWI Press Inaugural Fiction Award;

**Jennifer Rahim's** collection of short stories *Approaching Sabbaths* (Peepal Tree Press 2009), winner of the prestigious Casa de las Américas Prize for Caribbean Literature in English.

Several edited book and journal collections were also launched including:

*"Where is Here: Remapping the Caribbean"* *Journal of West Indian Literature Vol. 18 No. 2*, edited by **Jean Antoine**;

*"Caribbean Religion and Politics: A Model for Cultural Change"* *Wadabagei: A Journal of the Caribbean and its Diaspora. 12 (3) Winter 2009*, edited by **Maarit Forde** and **Diana Paton**;

*"The Culture of Violence: A Trinidad and Tobago Case Study"* *Caribbean Review of Gender Vol 4: 2010*, edited by **Valerie Youssef** and **Paula Morgan**;

*VS Naipaul: Created in the West Indies* (Ian Randle 2010); edited by **Jennifer Rahim** and **Barbara Lalla**;

*Beyond Borders: Cross Culturalism and the Caribbean Canon* (UWI Press 2010) both edited by **Jennifer Rahim** and **Barbara Lalla**.

Both Prof Lalla and Dr Rahim were specially honoured at the Dialogues event for their achievements in Creative Writing.

## *Campus Literature Week*

**Campus Literature Week** in March 2011 was very successful. Daily lunchtime readings featured the work of published writers from the Department as well as Master's of Fine Arts students, past and present UWI students, and guest readers **Michael Anthony** and **Anthony Milne**. There was a poignant moment when writers and audience members gave a spontaneous tribute to Michael Anthony for his seminal work in the fictional representation of "our world". The Week culminated with an evening of readings by this year's distinguished Writer-in-Residence, **Shani Mootoo**. There was also a showing of Mootoo's films adding another dimension to the annual flagship event.

*Conferences, Productions and Exhibitions*

Many of the events/productions from the Department of Creative and Festival Arts in 2010/2011 were centred on the Haitian Experience. Some major events held during the reporting period are listed below:

*Art & Design*

**OCTOBER 2010**

*Art, Design and Architecture Symposium* at School of Education Auditorium (organised by Visual Arts Unit & Lesley-Ann Noel)

**Rara Haitian Welcome** – event for Haitian students affected by earthquake on scholarship at UWI

UWI Arts Chorale and UWI Steel performed at the **UWI 50<sup>th</sup> Anniversary Interfaith Service** at Daaga Hall

**MAY 2011**

*BA Visual Arts Student Exhibition*, DCFA Gordon Street - with Leroy Clarke as the Feature Speaker

*Certificate Visual Arts Students Exhibition*, DCFA Gordon Street

*Theatre*

**NOVEMBER 2010**

*Festival of Plays* at LRC, UWI

*Festival of Scenes* at DCFA, UWI

**MARCH / APRIL 2011**

Theatre Arts Production: “*Here is My Ass Now Try to Whip It*”, directed by Rawle Gibbons and Camille Quamina

UWI Arts Chorale and UWI Steel presented *Cry Freedom* at Daaga Auditorium

**MAY 2011**

Theatre for Children: *Anansi Story Time & Sleeping Beauty*

Theatre for Children: *Androcles and the Lion* - Black Box, DCFA, Trinidad

Theatre for Children: *The Mythical Tree* at Bacolet Dance Studio, Tobago

**JUNE 2011**

UWI Festival Dance Ensemble performance: “*Hosanna*” for the official opening of the refurbished Little Carib Theatre

Must Come See Productions presents *Peter Pan* - the Musical - Queen’s Hall

*Dance*

**APRIL / MAY 2011**

*Sole to Sole* - Showcase Dance Production featuring staff and students with contemporary works of part-time lecturer Andre Largen and a number of school and community dance companies - LRC, UWI

*Festival Arts*

**JANUARY/MARCH 2011,**

*Jouvay Ayiti* at LRC, UWI, St. Augustine and as part of the 2011 Jouvay Carnival celebrations in Port of Spain

**FEBRUARY 2011,**

*The Old Yard* (formerly Viev La Cou) at DCFA, UWI, St. Augustine which featured the Guyanese mas maker, Adrian Waldron, and traditional mas characters)

## Musical Arts

### AUGUST 2010

J. Murray conducted the National Sinfonia Orchestra and members of the National Steel Symphony Orchestra in concert for the premiere of “*Only When Eternity Nears*” – a concerto for steelpan and orchestra with Liam Teague, steelpan soloist at Queen’s Hall.

### NOVEMBER 2010

*Kaiso Dialogues Awards 7* at UWI Staff Social Club (Carnival Studies Unit event) which this year honoured Brigo, Pelham Goddard, Shadow and Ronnie McIntosh

UWI Arts Chorale Performed as guests with the Neal and Massey Trinidad All Stars Steel Orchestra at their **75<sup>th</sup> Anniversary Celebrations** at the National Academy for the Performing Arts

Los Cantantes Festivos (Parang arm of the UWI Arts Chorale) presented a national parang workshop for schools at Daaga Auditorium.

### DECEMBER, 2010

UWI Guitar Ensemble performed in concert at DCFA, Gordon Street. Anthony Williams, director

UWI Arts Chorale, UWI Steel and the National Sinfonia Orchestra presented **Ceremony of Carols** with guest harpist Mirielle Delon from Martinique, Performances at Daaga Auditorium and at St. Paul’s Anglican Church, San Fernando.

Music Unit presented two harp workshops with Mirielle Delon

### APRIL 2011

UWI Percussion and the UWI African Drumming group presented **Rhythms of a Wooden Whirl** at Daaga Auditorium. Dr. Jeannine Remy and Mr. Julian Straker, directors

UWI Guitar Ensemble - DCFA, Gordon Street

**Music of the Diaspora** - UWI Intermediate Steelpan Ensemble, UWI Classical Ensemble and Caribbean Contemporary Ensemble at Daaga Auditorium. Mr. Deryck Nurse, Mr. Satnarine Baboolal and Superintendant Enrique Moore, directors.

## Other

### JULY/AUGUST 2010

Arts in Action’s annual “*Discovery Camp*”

### JULY 2010

School of Education celebrated the 50<sup>th</sup> anniversary of the establishment of the St. Augustine campus with a series of activities in. The theme for the programme of events was “*A hint of the past, a taste of the present, a glimpse of the future.*”

### FEBRUARY 2011

TH?NK Symposium, CLL Auditorium

## Film Festivals and Screenings

Seven students showed films at the **2010 Trinidad and Tobago Film Festival** (TTFF) at MovieTowne Port of Spain. *The Blood and the Bois* (dir. Sigmund Cromwell) received the People’s Choice Award while *Quiet Desperation* (dir. Renee Pollonais) won the Best Actor and Best Actress Awards at the TTFF. The films *Caribbean Skin*, *African Identity* (dir. Mandisa Pantin) and *Quiet Desperation* were selected for the 2011 edition of the Zanzibar International Film Festival in Tanzania.

The UWI held a two-day **Mini Film Festival** in September/October 2010, screening a number of the films from the TTFF. The day screenings were held at the Institute of Critical Thinking and open air *Cinema Under the Stars* screenings were held at the Student Activities Centre.

The Film Programme, in association with the High Commission of India and the Mahatma Gandhi Institute for Cultural Cooperation, hosted an **Indian Film Festival** in February 2011.

## **Administrative Transformation & Funding**

In order to improve the administration and operation of the Faculty, both Academic and Administrative staff have been asked to multitask and take on additional roles and responsibilities. Two first-time policies were introduced during this academic year - a Semi-Permanent Faculty Master Timetable was implemented and a rental policy for Film Programme equipment and services.

Work continued on the development of a manual outlining the duties and responsibilities of the various administrative posts in the Faculty Office/Office of the Dean and when this exercise is completed it will be rolled out throughout the Faculty.

The design, development and delivery of a more effective orientation programme for all new and returning students is also ongoing as is the development of strong academic advising programmes for both undergraduate and graduate students. The latter include academic advising workshops to train academic advisers.

## **Contribution to the Open Campus**

The Faculty continues to support to the development of the Open Campus by designing more courses and programmes for blended modes of delivery. The BEd (Primary) Language Arts programme is offered in collaboration with Open Campus.

## **PROJECTED ACTIVITIES**

The Faculty's projected activities for 2011/2012 and beyond towards the realisation of its key objectives of the UWI Strategic Plan 2007 to 2012 and for the next five year Strategic Plan 2012 to 2017 include the following:

### *Teaching and Learning*

The Faculty aims to offer the **UG Certificate in Journalism** in 2011/2012 and to start teaching the **BEd Primary (General) degree**. New courses in Digital History, History of Health in the Caribbean and Women and Gender: Pre-Colonial Africa are also to be designed. A new Foundation course in Arts, Aesthetics and Culture is proposed and a new academic writing courses for Certificate students is to be introduced. The Faculty will seek approval for a proposed **Practitioner's Certificate in Carnival Studies** which was designed in 2010/2011. Reviews are scheduled for programmes in Carnival Studies and Visual Arts.

The Trinidad & Tobago Ministry of Education has asked for assistance in providing more Theatre Arts Teachers in Secondary Schools. As such, the Faculty is to design and mount new programmes such as a **BA in Cultural Studies** and an **Advanced Certificate in Drama/Theatre-in-Education**. Other new programmes include **Diplomas in Animation, Indian Music, Carnival Aesthetics, and Design and Carnival in Education**. The School of Education is collaborating with the Faculty of Science and Agriculture to create a **4-year BA/BSc with Education** as well as **BEd and Master's programmes in Mathematics with Education**. A new programme in **Product/Industrial Design** and a **BA degree in Arts Education** are also planned.

The School of Education has also begun delivery of the **In-service Diploma in Education** programme in **Tobago**. The programme started in 2009 with one curriculum area (science) and has been increased to three curriculum areas during 2010/2011. The school intends to continue delivery of three curriculum areas during 2011/2012 and to introduce Social Studies in 2011/2012.

Under consideration are proposals to offer the Film programme on a part-time basis to increase enrollment of professional applicants; and the design of short courses - *Business Writing Today* and *Writing* - to



generate income and to help better prepare students for the work environment. A new foundation course, *Communication in Creative Arts* has also been proposed as well as a course in Music Therapy. The Faculty will also be seeking to increase opportunities for credit-earning student internships.

The Faculty hopes to introduce History courses which promote greater regional understanding and special co-curriculum courses for History students. There is to be a new focus on differentiated instruction to address all types of learners in the teaching of reading and the infusion of critical thinking and authentic assessment into courses offered in the Department of Creative and Festival Arts. The Faculty will continue to encourage staff to restructure courses for blended delivery and to increase the use of discipline appropriate software in teaching

There are plans to expand the English as a Foreign Language programme to better meet the needs of non-English speakers who come to the University either as international or exchange students; to capture some of the market for pre-university English for Academic Purposes courses; and to cater to non-native speaking professionals working in Trinidad and Tobago.

### *Graduate Studies*

The Faculty plans to offer the pre-service Post-graduate Diploma in Education, the MA Design: Entrepreneurship and design and/or offer new postgraduate programmes such as an MA Heritage Studies Programme with studentships at national and regional archives and museums; an MA in Arts and Cultural Enterprise Management; an MFA/MPhil in Film; an MA in Film Literature and Cultural Studies; and MEd Programmes in Leadership, Educational Technology, and Assessment and Evaluation; an MSc in Speech Language Pathology; a Master's degree in Sports Management (in collaboration with FIFA); a Master of Arts in Technical and Vocational

Education and Workforce development; and graduate programmes in Communication Studies. A needs analysis will be conducted looking at graduate programmes in DCEFA (Dance, Music, Art, Drama, Creative Arts Education).

### *Research and Innovation*

Among the exciting projects scheduled to begin during the 2011/2012 academic year are the publication of the papers presented at the Black Power Conference held in 2010/2011; a Conference for Retired Professors; the histories of CAREC and general health in Trinidad & Tobago.

The Carnival Studies Section of the Department of Creative and Festival Arts is to develop and write a training manual on the principles of mas design and is leading the development of a documentary – the Super Blue Legacy Project - to be researched, scripted, developed and filmed by the UWI.

### *Open Campus*

Activities in support of the Open Campus include the continued preparation of course material for blended modes of delivery and the training of more staff in the delivery of courses online. The Faculty plans to mount portions of its graduate courses online on a phased basis and increase the number of workshops, public lectures, co-curriculum activity and research offered and undertaken in non-Campus territories.

### *Administrative Goals*

Over the next academic year the Faculty will focus on improving record keeping and the administrative processes and procedures of the Office of the Dean and an intra-faculty electronic workflow is to be created for Student Affairs. There is a proposal to divide the Department of Liberal Arts into two separate departments and others for revenue generating initiatives and investments to fund increases in human resources.

A number of capital projects are listed for the upcoming year such as the completion of the Film Programme Building, the construction of a building for the Department of Creative and Festival Arts, enclosure of the School of Humanities undercroft and refurbishment of the buildings used by UWI St. Augustine at the Tobago Hospitality and Tourism Institute.

## DISTINGUISHED VISITORS

### *Centre for Language Learning*

**Mr. Craig Machado**  
*Fulbright Senior Specialist*

**Prof. Mari Noda**  
*Professor and Chair of the Department of East Asian Languages and Literatures,  
Ohio State University, Columbus OH*

**Dr. Eric Shepherd**  
*Assistant Professor and Coordinator of the Chinese Program,  
Department of World Languages, University of South Florida, Tampa FL*

### *Department of Creative and Festival Arts*

**Ms. Malene Barnett**  
*Textile Designer,  
New York*

**Dr. Michael Bump**  
*Associate Professor of Percussion Studies,  
Truman State University,  
USA*

**Mr. Ray Funk**  
*Carnival Studies,  
Alaska*

**Dr. Julia Gaines**  
*Associate Professor of Percussion,  
University of Missouri,  
USA*

**Mr. Timothy Hamil Smith**  
*President of the Senate,  
Trinidad and Tobago*

**Mr. Maria Kellier**  
*Carnival Studies,  
Los Angeles Carnival, California,  
USA*

**Dr. Andy Martin**  
*Assistant Professor of Music,  
University of St. Paul, Minnesota,  
USA*

**Ms. Ingrid Persaud**  
*Caribbean Export Development Agency,  
Trinidad and Tobago*

**Mr. Jimi Phillips**  
*Pan Innovator, builder, tuner and entrepreneur,  
Trinidad and Tobago*

**Professor Harry Price**  
*Percussion,  
University of Delaware,  
USA*

**Mr. Giulio Vinaccia**  
*Designer/Lecturer,  
Politecnico di Milano – Scuola del Design,  
Italy*

**Mr. Adrian Waldron**  
*Mas Maker,  
Guyana*

### *Department of Liberal Arts*

**Michael Anthony**  
*Guest Lecturer,  
Reader at CLW*

**Willi Chen**  
*Reader at CLW*

**Professor J. Michael Dash**  
*Professor of French and Director of the  
Africana Studies Programme,  
New York University,  
New York*

**Prof Carla Freccero**  
*Guest Lecturer,  
University of California,  
Santa Cruz*

**Prof George Handley**  
*Guest Lecturer,  
Brigham Young University*

**Nicholas Laughlin**  
*Editor of Caribbean Review of Books,  
Trinidad and Tobago*

**Shani Mootoo**  
*Distinguished Writer-in-Residence,  
Canada*

**Dr. Kofi Yakpo**  
*Lecturer in Linguistics,  
Netherlands*

*School of Education*  
**Professor George Dei**  
*USA*

**Professor Michael Ross**  
*USA*

## Film Programme

**Mr. George Amponsah**  
Director,  
Ghana/UK

**Mr. Marc Barrat**  
Director,  
USA

**Mr. Kamalo Deen**  
Director (Trinidad and Tobago)  
Based in USA

**Mr. Richard Fung**  
Director (Trinidad and Tobago)  
Based in Canada

**Mr. Miquel Galofré**  
Director,  
Jamaica

**Dr. Mary Jane Gomes**  
Director,  
Canada

**Mr. Ciro Guerra,**  
Director, Screen Writer,  
Colombia

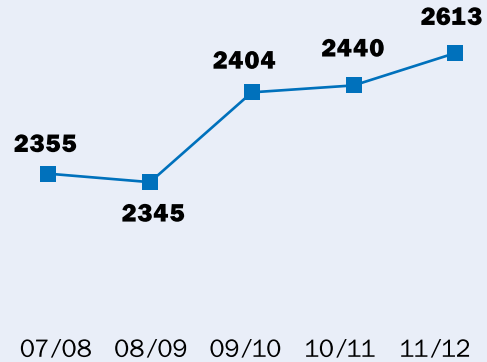
**Mr. Usma Hassan**  
Producer,  
London

**Mr. Wanuri Kahui,**  
Director, Screen Writer,  
Kenya

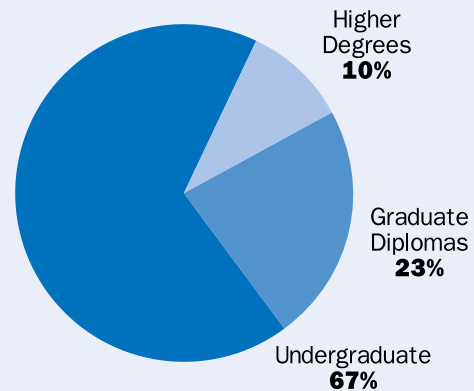
**Mr. Martin Mhando**  
Director, Producer,  
Tanzania, Zanzibar

**Mr. Adam Taub**  
Director (Documentary),  
USA

## GROWTH IN ENROLMENT 2007 – 2012



## GRADUATES BY PROGRAMME 2007 – 2012





TAKE A  
**CLOSER**  
LOOK

# FACULTY OF **MEDICAL SCIENCES**

**PROFESSOR SAMUEL RAMSEWAK**  
DEAN, FACULTY OF MEDICAL SCIENCES



## DEAN'S MESSAGE

The Mission statement of the Faculty of Medical Sciences continues to guide our efforts 'to train health professionals to meet the needs and improve the care of those whom they serve. To strive for professional excellence while contributing to the social, economic and cultural development of the Caribbean and inculcating graduates an attitude of lifelong learning, ethical conduct and excellence in service and research.'

In 2010/ 2011, the Faculty continued its plans for addressing the welfare of our students and to improve their educational experience. Physical expansion included major refurbishment work on the 3-level, old Doctors' Quarters at the San-Fernando General Hospital compound which was started and by the end of the academic year was almost complete. Preliminary approvals were also obtained for construction of a 4-storey multi-purpose building on the compound of the Eric Williams Medical Sciences Complex and for the physical expansion of the School of Dentistry. Initial funding was allocated to the Students' Recreation Centre to be built at the Mt Hope site.

The School of Pharmacy received approval for the introduction of the BSc Pharmacy programme (mixed mode). This programme is to be introduced in 2011/2012 and is aimed at practising Pharmacists who wish to upgrade their qualifications, but who are unable to access the face-to-face programme because of work commitments.

The continued improved financial position of the Faculty meant that much needed staff to service the needs of the students could be recruited. Several new posts were created and long outstanding vacancies were advertised to be filled.

In keeping with the University's thrust towards research and innovation, a very successful Faculty Research Day was held in December 2010. This initiative saw the work of both staff and students of the Faculty being publicly presented in the form of oral presentations and posters. The papers are to be printed in a special supplement of the West Indian Medical Journal.

Preparations began for the upcoming CAAM-HP accreditation visit to the School of Medicine scheduled for March 2012, a pre-requisite of which is a self-study report and much work was done to make this ready for submission. Many Faculty members gave selflessly of their time to make the preparations quite comprehensive.

**Professor Samuel Ramsewak**  
*Dean, Faculty of Medical Sciences*



## DEPARTMENTAL EXECUTIVE SUMMARIES

### *Department of Para-Clinical Sciences*

The Department of Paraclinical Sciences is multidisciplinary with three Units and several subspecialties of teaching. The three Units (with the subdisciplines) comprise Pathology (Anatomical Pathology, Microbiology, Immunology, Chemical Pathology and Haematology) Pharmacology and Public Health and Primary Care. Teaching and learning in the Department is crucial to the career of the medical student as it leans on the infrastructural material learnt in the preclinical years to introduce the student to clinical laboratory medicine, understanding the etiopathology and the treatment of disease states. Academic members of staff also actively contribute to training students in the Optometry programme.

The Department was actively involved in restructuring the current curriculum to present to the CAAM-HP Committee, so that teaching of introductory clinical medicine occurs alongside the Paraclinical sciences. This activity harmonises with the Mona campus and it is intended that once the necessary approvals are granted, the revised curriculum would be introduced in the next academic year.

The Department held extensive deliberations for more objectivity on the examination process and changed the format of the examinations from open-ended essay questions to completely objective assessments. Besides the MCQ style of questions, a new form of assessment; i.e. the Extended Matching Question was introduced to provide more depth to the examination process.

The Public Health and Primary Care Unit completed the Quality Assurance audit by the Quality Unit of the UWI. The Department saw its first batch of graduands in the Master's in Public Health programme. An exit interview for Year 3 students was introduced and the feedback on teaching, learning and curriculum content

was well received by faculty. The Department strived to address the chronic deficiency in faculty numbers and improvement has occurred in staffing.

### *Department of Clinical Medical Sciences*

The Department of Clinical Medical Sciences continued to provide teaching and clinical service through its four Units in the year 2010/2011 at all of the major hospitals in Trinidad and Tobago. Human resource challenges remained as only one of the five posts advertised were filled and we welcomed Dr. Danielle Hadeed to the Department as Lecturer in Clinical Psychology. However, the other four posts remain unfilled and are currently being re-advertised.

The Trinidad Health Training Centre which functions under the Child Health Unit and is directed by Professor Zulaika Ali continues to provide training for a range of stakeholders in HIV related health matters. The Centre's staff also presented at several local and regional conferences during the year.

Professor Terence Seemungal also continues to chair the campus Open Lectures Committee. The Department also celebrated the promotion of Dr. Sandra Reid to Senior Lecturer in Psychiatry. The Department began hosting a monthly research focus meeting to engender a greater awareness for research among the postgraduate students, this proved to be quite successful. Initial discussions were undertaken to establish the Chronic Non Communicable Disease health issue as the basis for collaboration between the various Units to generate a cross unit research hub.

### *Department of Clinical Surgical Sciences*

Each staff member of our Department runs a full clinical service. Thus, in addition to teaching and research, they conduct ward rounds, outpatient clinics and operating theatre sessions like all Government Consultants. With increasing trauma, the clinical workload is considerable and less time is available for research. Both this and the increasing number of students make it necessary

that we employ more staff to satisfy the teaching and research needs. Our Department is made up of several Units – Obstetrics and Gynaecology, Ophthalmology, Otolaryngology (ENT), Anaesthesia and Intensive Care and General Surgery and Emergency Medicine.

Weekly audits, postgraduate seminars, multidisciplinary oncology, radiology/surgery grand rounds, operative surgery sessions and monthly journal club meetings take place (with the DM candidates). A Residents' Research Day takes place twice per year. In Emergency Medicine there are weekly tutorials for each student group (DM Part 1, DM Part 2 and Diploma); monthly grand rounds (including critical appraisal, case presentations and audit presentations); life support courses (APLS, airway management; ACLS; BLS; ATLS); weekly clinical teaching sessions; online teaching resources (simulated patients; interactive tutorials; mock exams)

The Department produced five DM and fourteen (14) Diploma Graduates – Anaesthesia and Intensive Care (1), Surgery (1), Orthopaedics (1), Obstetrics and Gynaecology (1), Emergency Medicine DM (1), Diploma (14). Permission has been obtained for the start of the DM in Otolaryngology,

### *School of Dentistry*

The year 2010/2011 saw the School progress well. Thirty-four new students were admitted into the programme - 65% from Trinidad and Tobago, 22% from other Caribbean territories and 13% from outside the region. Each class is brimming with students, revealing the need to pursue expansion plans. Twenty-two graduates from the previous year completed the Vocational Training Certificate Programme, nine of these who also enrolled into the UWI-LMC Residency Programme have successfully completed this programme obtaining Residency Certificates.

An important event during this period was the CAAM-HP accreditation visit in the first week of October 2010; the School was accorded a conditional two-year accreditation. Several measures have been undertaken to address the various issues raised by the accreditation team with a view to obtaining full accreditation. The School wishes to acknowledge the support of the Campus Principal, Professor Sankat and the Dean of the Faculty of Medical Sciences in this endeavour.

Professor P.R. Murti, then Director of the School represented the Dean at the Board of Undergraduate Studies in February 2011 where he summarised the accreditation status of the School. The School tried to address, again in February 2011, the long-standing issue of UWI dental graduates having to take the qualifying examination of the Dental Council of Jamaica. Professor Murti held cordial discussions with the Chairman and Registrar of the Dental Council of Jamaica. Several measures were suggested that range from inviting representatives from Jamaica to observe the delivery of courses, observing the examination process and our School staff assisting in the examination process. This ongoing process will be actively pursued.

In March 2011, with similar objectives a team composed of Professors S. Ramsewak (Dean), P.R. Murti (Director) and Drs. R. Rafeek and S. Marchan visited Barbados. The host group included Honourable Minister of Health, Government of Barbados, and the Chief Medical Officer, Barbados Dental Council representatives, members from the health education accreditation body of Barbados and other distinguished members. The discussions were very cordial and constructive. An immediate outcome of this meeting was the request from the Barbados Dental Council to conduct their registration examination for UWI Barbados graduates in the more familiar surroundings of our School. The School, of course, will gladly oblige.

Another significant development stems from discussions taking place with representatives from Mona Dental School on harmonising their Doctor of Dental Surgery (DDS) programme with our programme and to share the curriculum. The School offered assistance and cooperation in this direction.

In July 2011 discussions were held with the Ministry of Health (MOH) concerning the payment of stipends and contracts for Dental Interns.

In view of the demand for the School's programme and from the view point of income generation, the School, with the active support from the Campus Principal and the Dean, is exploring initiatives to expand. Several discussions were held at the Campus level and with the North Central Regional Health Authority to obtain the desired land.

Last but not the least, Professor P.R. Murti retired after 16 years of meritorious service to the School, of which close to 10 years have been as an Acting Director/ Director of the School. In his place Dr. H.F. Al-Bayaty has been appointed as an Acting Director.

Overall, during the period of this report, the School progressed well in terms of producing quality dental graduates and attempts are being made to focus on research output. The School also is successfully running the Special Needs Dental Clinic, first of its kind in the Caribbean and also has some income generating activities.

### *School of Veterinary Medicine*

Academic year 2010/2011 was a very challenging one for staff (academic and administrative, technical and support) and students in the School of Veterinary Medicine. In March 2011, the School was informed that a Quality Assurance Review exercise was scheduled for March 12-16, 2012. The SVM also applied for a consultative site visit by a team from the American Veterinary Medical Association (AVMA). This visit is scheduled for Semester 1

of academic year 2012/2013. The implication of these two activities was that the SVM commenced collating data to constitute parts of two completely different Self Study Reports. Through the activities of several committee members considerable progress was made in preparing these reports and the SVM is well ahead of schedule for submission before the deadlines. During the academic year, the SVM also completed a curriculum review which involved the introduction of the semester and grade point average (GPA) systems in the DVM programme.

Recruitment of staff to the clinical areas of the SVM continues to pose a major challenge in the delivery of our programmes primarily due to the uncompetitive remuneration package offered by The University of the West Indies.

During the academic year 2010/2011, 16 postgraduate students were registered for graduate studies in the SVM. A total of 170 undergraduate students were enrolled in the five-year DVM programme of which all 19 final year students graduated as veterinary doctors. A troubling issue for the School was the fact that of the 47 students, who enrolled in Year 1 of the programme, 33 were from Trinidad and Tobago, 10 from the Caribbean and 4 were extra-regional students. The School plans to attract more extra-regional/overseas students in the future. One of the strategies being pursued is to seek AVMA accreditation, as mentioned earlier. It is expected that with AVMA accreditation the SVM will be able to attract extra-regional students.

A one-year collaborative project which was commissioned with Colorado State University in the area of risk management with a focus on food safety, public health and animal health and funded by the United States Department of Agriculture (USDA), was completed in academic year 2010/2011. During the period, the technical expert attached to the SVM under the collaboration hosted workshops across the region for the training of veterinarians in risk assessment.

Finally, the six business units (Aquaculture, Plastination, Diagnostic Services, Hospital Services, Food Safety and Continuing Education) completed their first full year of operation under the guidance of a Manager and an Assistant Manager for Hospital Services and Business Development. The activities of these entities have increased the revenue generation capacity of the SVM from sources other than tuition fees.

### *School of Advanced Nursing Education*

2010/2011 represented a significant year in the life of the School. Within the year, the founding Director of the School retired and a few part-time and contract lecturers were engaged. It also saw a significantly high number of students graduating from and enrolling in the programmes of the School.

The School participated in a number of special projects and community outreach activities with secondary schools, and communities in Trinidad and Tobago, including hosting an Open Day. It was also involved in some regional co-operation with other similar nursing institutions. It generated some revenue during the summer period with courses offered in the summer for registered nurses in Trinidad and Tobago. There were visits by distinguished scholars, some of whom participated as external examiners of the undergraduate programme, as well as taught some courses in the postgraduate programme.

## STUDENTS

The Faculty of Medicine tends to attract a higher percentage of regional and international students when compared to the Campus average. At the School of Dentistry for instance it was noted that 65% of students were from Trinidad, 22% from the wider Caribbean and 13% from outside the region. At the School of Veterinary Medicine however, there are plans to institute measures that will attract more international students.

## STAFF

Across the Faculty, Departments and Schools reported difficulty attracting and retaining teaching staff and as a result, many positions remain unfilled. In most cases the main reason cited was an unattractive remuneration package. This remains a priority area for the Faculty as it moves forward.

## STRATEGY APPRAISAL

### Teaching & Learning

The Department of Preclinical Sciences piloted a method of assessment more closely aligned with the Problem Based Learning aspect of the curriculum.

The Department of Para-Clinical Sciences uses a multimodal application of course delivery and assessment to achieve the ultimate goal to prepare the student for clinical sciences in the most comprehensive and effective manner. The methods of approach include didactic lectures, Problem Based Learning (PBL), seminars, laboratory, and Pathology Museum training, clerkships and clinical teaching in wards is conducted by certain disciplines. Similarly, at the School of Veterinary Medicine most courses are now on mylearning and all academic staff members attended a workshop on Assessment, facilitated by the Instructional Development Unit (IDU).

The School of Pharmacy held a curriculum retreat, which helped identify the need to split courses with large credit-loads as well as other curriculum shortcomings. In January 2011, the School opened applications for practicing Pharmacists desirous of upgrading their qualifications to earn the Bachelor of Science in Pharmacy, through a mixed-mode programme.

## Graduate Studies

The Department of Preclinical Sciences celebrated the successful graduation of two PhD candidates – one in Human Anatomy and the other in Molecular Genetics. The Master's in Public Health (MPH) offered through the Department of Para-Clinical Sciences, saw its first cohort of graduates in 2011.

## Research & Innovation

### Research Agenda

At the Department of Preclinical Sciences the research agenda focuses on Neuroscience, Molecular genetics and virology, Medicinal properties of natural products, and Nutrition & Metabolism.

Researchers in the School of Veterinary Medicine continue to work on a project with the primary objective being to develop an efficacious vaccine for prevention of leptospirosis in dogs. Vaccine trials in Beagle dogs using serovars isolated locally, continued during the academic year.

The School of Advanced Nursing Education is currently pursuing several research activities that are intended to promote the personal and professional enhancement of nursing and health care. A senior team visited the Ryerson University in Toronto Canada in November, 2010 to participate in a research project entitled, 'Patient Perceptions and Preference of Interventions for Clinical Depression'. This visit was supported by a research grant received from the CBIE-CARICOM programme.

While most of the Faculty is making headway with research that is relevant and impactful, the research capability the Department of Clinical Surgical Sciences is severely hampered by human resource constraints. As noted in the Department's Executive Summary, each staff member, in addition to teaching and research, "conducts ward rounds, outpatient clinics and operating theatre sessions like all Government Consultants." The result is less time available for research. An increase in the staff complement should however provide the necessary relief.

### Research Completed

*Department of Preclinical Sciences*

### **MODULATION OF BRAIN NEUROTRANSMITTER RECEPTORS TO REDUCE MIGRAINE AURA (J. ADDAE, N. ALI & T.W. STONE).**

**COLLABORATION:** Glasgow University, UK

**SUMMARY:** Glutamic acid and GABA receptors are the most common excitatory and inhibitory receptors in the brain – mediating several physiological and pathological processes. The series of studies have shown that activation of one type of glutamic acid receptors (the AMPA type) reduces spreading depression cycles that cause the aura on migraine that is mediated by another type of glutamic acid receptor (the NMDA type).

**SIGNIFICANCE OF RESULTS:** The project has opened an avenue for exploring a novel approach to migraine aura treatment.

### **MOLECULAR EPIDEMIOLOGY OF RABIES IN TRINIDAD**

**INVESTIGATORS:** Janine Seetahal,<sup>a</sup> Christine V. F. Carrington,<sup>b</sup> Abiodun Adesiyun,<sup>c</sup> Jerome E. Foster,<sup>b</sup> Andres Velasco-Villad and Charles Rupprecht<sup>d</sup>

**AFFILIATIONS:** <sup>a</sup> Veterinary Diagnostic Laboratory, Ministry of Health, Republic of Trinidad and Tobago; <sup>b</sup>Department of Preclinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Republic of Trinidad and Tobago; <sup>c</sup> School of Veterinary Medicine, Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Republic of Trinidad and Tobago; <sup>d</sup>CDC, National Center for Emerging Zoonotic Diseases, Atlanta, GA, USA.



**SUMMARY:** Bayesian phylogeographic approach was used to investigate whether outbreaks of rabies virus (RABV) in Trinidad are a result of local maintenance or regular re-introduction from the South American mainland. The investigation was based on a dataset of 189 nucleotide sequences, including 33 newly-derived sequences from viruses isolated in Trinidad between 1997 and 2010. Results confirmed a vampire bat rabies virus origin, and provide evidence of three separate importations from the South American mainland of two distinct bat rabies virus variants. However, there was also evidence of in-situ maintenance of the virus within Trinidad with co-circulation of the two variants for limited periods. Epidemiological analyses of the 2010 outbreak suggest entry of the virus from the Southwestern peninsula of the island with subsequent spread in a Northeasterly direction. Further investigation into the relationship between the spatio-temporal dynamics of RABV and vampire migration patterns are warranted.

**SIGNIFICANCE OF RESULTS:** These data can inform rabies virus control and monitoring efforts, and highlight the importance of sustained vector control measures particularly in regions of the island that are close to the mainland.

**SELF MONITORING OF BLOOD GLUCOSE AND ITS ASSOCIATION WITH BETTER GLYCAEMIC CONTROL IN TYPE 2 DIABETIC PATIENTS AGED 40- 75 IN TRINIDAD.**

**INVESTIGATOR:** S. Nayak

**SUMMARY:** This study showed that recent users of the glucometer seemed to have better control of their HbA1c than longstanding users. The same result was also seen in the lipid profile with patients using a glucometer for more than 11 years having the highest cholesterol while those owning it between 6 months

to 5 years had the lowest values. Little difference or improvement was noted for the frequent users of the glucometer compared to those who used it occasionally or once a week.

**SIGNIFICANCE OF RESULTS:** The study recommends patient education on use of the glucometer, mode of administration of insulin and proper diet and exercise to control their diabetes.

**WOUND HEALING & ANTI-MICROBIAL POTENTIAL OF AN ETHANOLIC EXTRACT OF CARICA PAPAYA SEEDS.**

**INVESTIGATORS:** S. Nayak, Ria Ramdeen, Andrew Adogwa, Adash Ramsubhag and Julien Marshall

**SUMMARY:** The group of rats treated with the ethanolic extract of C. papaya demonstrated a significant decrease in wound area when compared to controls.

**SIGNIFICANCE OF THE RESULTS:** Our results suggest Carica papaya promotes significant wound healing in rats and further evaluation of this activity in humans is suggested.

*Department of Para-Clinical Sciences*

**Professor C. Ezenwaka**

The perceptions of Type 2 diabetes patients on self-monitoring of blood glucose.

**Dr. J. Rawlins**

‘Social and family networking after retirement: Economic security, leisure and volunteering in Trinidad and Tobago’ Campus Research and Publications Fund

Completed data collection and data analysis for the project, ‘An investigation into the family networking, health and volunteering activities of retired persons in Trinidad & Tobago’

**Dr. W. Mohammed**

‘To determine human papilloma virus genotypes in invasive cervical cancer in Trinidad and Tobago’ Campus Research and Publication Fund.

**Professor L. Pinto-Pereira**

Collaboration with the Departments of Clinical Medical Sciences and Pre-Clinical Sciences:

- *the association between lung function and inflammation in adult diabetics.*
- *markers of lung function and inflammation in diabetic patients*

**Dr. P. Akpaka**

Molecular detection and characterisation of extended spectrum beta lactamase (ESBL) genes in klebsiella pneumoniae and escherichia coli isolates from a tertiary hospital in T & T.

**Dr. Rohan Maharaj**

Developed a model to identify chronic non-communicable diseases in the community, in conjunction with the Inter American Development Bank (IADB).

**New & Current Research Projects**

*Department of Preclinical Sciences*

**METAGENOMIC ANALYSIS OF SELECTED BAT SPECIES IN THE TRINIDAD**

**INVESTIGATORS:** Christine V. F. Carrington,<sup>a</sup> Jerome E. Foster,<sup>a</sup> Janine Seetahal,<sup>b</sup> Abiodun A. Adesiyun,<sup>c</sup> and Eric Donaldson<sup>d</sup>

**AFFILIATIONS:** <sup>a</sup>Department of Preclinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Trinidad; <sup>b</sup>Veterinary Diagnostic Laboratory, Ministry of Health, Trinidad and Tobago; <sup>c</sup>School of Veterinary Medicine, Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago; <sup>d</sup>Department of Epidemiology, University of North Carolina, NC, USA.

**SUMMARY:** The vast majority of emerging infectious diseases are caused by zoonotic RNA viruses (e.g. severe acute respiratory syndrome (SARS), HIV, H1N1 influenza). It has been suggested that the animal species that are most likely to harbour potentially emergent viruses are those with large and/or dense populations, in particular those that live in close proximity to and are more closely related to humans and their domestic mammals, such as rodents, bats and birds. Bats are of particular interest because they are the most abundant mammals, widely distributed and second only to rodents in terms of number of species. Over 85 viruses that can infect humans have been detected in bats including agents of zoonotic diseases such as influenza A virus, SARS virus-like coronaviruses, rabies virus, and emerging viruses, such as Ebola and Nipah.

The number of spillover events from bats in the past two decades is also noteworthy. It is likely that many more unknown bat-associated viruses exist in nature, and that some will emerge into human populations. In order to control and eventually predict and prevent the emergence of diseases from bats, an understanding of the viral diversity in bats is crucial. We aim to use metagenomic approaches to define the comprehensive viromes (i.e. the sum total of all viruses found in a species) of selected New World bat species. We have already begun work on the Vampire bat (*Desmodus rotundus*) and will conduct 454 metagenomic sequencing of samples from several tissue types; identify viral sequences that share similarity with human viruses; conduct evolutionary analyses to characterise these viruses; and provide complete virome analysis comparing the comprehensive vampire bat virome by species, age, sex, and by sample type.

**INVESTIGATION OF POTENTIAL ANTI-VIRAL COMPOUNDS.**

**INVESTIGATORS:** Christine V. F. Carrington, Jonas I. Addae, and Trevor W. Stone

**COLLABORATION:** University of Glasgow, Scotland, UK

**SUMMARY:** Dengue is one of the most important public health problems in the Caribbean. Several vaccines are in the late stages of development but there is no cure for Dengue. The aim of this project is to assess the ability of plant extracts to block dengue virus replication in cell culture.

**THE USE OF N-TERMINAL BNP AND MULTIPLE RISK FACTORS TO ASSESS CARDIOVASCULAR RISK IN ELDERLY TYPE 2 DIABETIC AND NON DIABETIC TRINIDADIANS.**

**INVESTIGATOR:** S. Nayak

**SUMMARY:** To evaluate the relationship of serum NT-pro BNP and other prognostic indicators (BMI, waist to hip ratio, blood pressure and serum cholesterol) with cardiovascular risk in elderly type 2 diabetic and non diabetic Trinidadians.

**SIGNIFICANCE:** The results of this study may help to know the importance of NT-proBNP as a prognostic indicator to detect the cardiovascular risk factor in elderly Trinidadian subjects. This will recommend physicians to use the NT-proBNP along with other risk factor to treat the diabetic patient to protect them from future cardiovascular diseases.

**A STUDY OF GLYCAEMIC CONTROL AND THE KNOWLEDGE, ATTITUDES AND PRACTICES OF FOOTCARE DIABETICS WITH AND WITHOUT LOWER EXTREMITY AMPUTATION (LEA) IN TRINIDAD.**

**INVESTIGATOR:** J. Mohan

**SUMMARY:** The principal aim of this study is to determine the risk for LEA in Type 2 diabetics with and without LEA. To do this, one medical risk factor, i.e. glycaemic control and one behavioural risk factor, i.e. the knowledge, attitudes and practices with respect to footcare will be assessed in Type 2 diabetics with and without LEA. Whether the knowledge, of attitudes towards and practices of footcare in Type 2 diabetics with LEA improved after they had an amputation will also be investigated.

**SIGNIFICANCE:** It is anticipated that the findings of this investigation will inform the design of a program of educational intervention to prevent the progression of poor blood glucose control and poor knowledge, attitudes and practices to foot injury, foot ulceration and LEA. This will benefit the individual subject and ultimately his/her community. In addition, it is expected that the findings will be disseminated to the scientific community locally, regionally and internationally through presentations at research conferences and publications in regional and international peer reviewed journals.

**HEALTH PROMOTION AND HUMAN PRODUCTIVITY  
MANAGEMENT**

**INVESTIGATOR:** E.M. Davis

**SUMMARY:** KAPP on healthy lifestyle habits phase; interventions based on results of scientific survey; and measurement of efficacy of interventions. The importance of a healthy lifestyle and managed stress in today's world must be underscored. Interventions aimed at lifestyle modification which encourage persons to lead healthy physically active lifestyles, or that provide opportunities for people to participate in physical activity have generally been found to significantly improve quality of life, health and wellness.

**DERMATOGLYPHICS IN PATIENTS WITH BRONCHIAL  
ASTHMA, PULMONARY TUBERCULOSIS,  
SCHIZOPHRENIA, DEMENTIA AND PSYCHIATRIC  
DISORDERS**

**INVESTIGATOR:** S. Rao

**SUMMARY:** Dermal palmar and plantar ridges are highly useful in biological studies. Their notably variable characteristics are not duplicated in other people, even in monozygotic twins or even in the same person, from location to location. Several studies on dermatoglyphics in biology and medicine have long been interested in abnormal psychology and congenital defects. Therefore the present work is undertaken to do a systematic study of dermatoglyphics pattern in patients with bronchial asthma, tuberculosis, schizophrenia, dementia and other forms of psychiatric disorders in persons of African and East Indian descent in Trinidad. Examination of genetic markers may be of value in identifying some of the patients at risk of these disorders. These parameters may help in early identification and may serve as biological markers for the conditions being studied.

*Department of Paraclinical Sciences*

**Professor C. Ezenwaka**

Pilot study on 'The prospective evaluation of the benefits of self blood glucose monitoring on the metabolic control of Type 2 diabetic patients in Tobago and the introduction of patient educational interventions'

**Dr. P. Akpaka**

Currently collaborating with Dr. Stefan Monecke, Institute for Medical Microbiology and Hygiene, Technical University of Dresden, Germany and Dr. Paul Levett, Saskatchewan Disease Control Laboratory Regina, Saskatchewan, Canada on 'Molecular characterisation of Staphylococcus aureus isolates in Trinidad and Tobago and the Caribbean'

**Dr. Y. Clement**

Evaluation of plant sources as agents with potential pharmacological activity.

**Research Grants**

Research Grants were awarded for the following research projects:

*Department of Preclinical Sciences*

**C. Carrington**

'Metagenomic Analyses in Support of the Nariva Swamp Wetland Habitat Restoration initiative, Trinidad and Tobago'. Campus Research and Publications Fund. TT\$91,000

**J. Foster**

'A Phylogenetic Analysis of HCV Infection within Trinidad'. Campus Research and Publications Fund. TT\$59,600

**F. Youssef**

'To strengthen the institutional capacity of the University of the West Indies and the region as it pertains to the teaching and training of ethics'. Campus Research and Publications Fund. TT\$30,000

'The effects of activation of cognitive and emotional neuronal circuits on moral decision making'. Campus Research and Publications Fund. TT\$50,000

**A. McRae**

'Cell cultures as a means to diagnose dementias'. TT\$50,000

*School of Pharmacy***Dr. S. Pandey**

'Biodegradable polymers: A comprehensive study on degradation mechanism and its characterisation'. Campus Research and Publication Fund, TT\$ 75,000

**Dr. P. Sealy**

'Evaluative research on Pharmacist managed (directed) diabetes care vs self monitoring of blood glucose via the Chronic Disease Assistance Programme (CDAP), Trinidad and Tobago Ministry of Health'. Campus Research and Publication Fund, TT\$43,000

**Dr. P. Sealy & Dr. D. Ignacio**

'Cost-benefit, safety and efficacy analysis of using prefabricated adult drug products for obtaining child's dose of medication not commercially available for children in Trinidad & Tobago'. Campus Research and Publication Fund, TT\$84,867.80

**Dr. G. Allison**

'The establishment and characterisation of colorectal cancer cell lines from Caribbean patients'. Campus Research and Publication Fund, TT\$70,000

**OUTREACH***Department of Para-Clinical Sciences*

The Department provides immunofluorescence and diagnostic services at the Eric Williams Medical Sciences Complex to patients with renal and skin disease. Collaborative work was undertaken during the review period with the Institute for Medical Microbiology and Hygiene, Technical University of Dresden, Germany, the Saskatchewan Disease Control Laboratory Regina, Saskatchewan, Canada, with the Inter American Development Bank (IADB) and the Scripps Research Institute, San Diego, California. The Department also hosted the 7th Annual Conference of the Caribbean Association of Medical Microbiologists.

*Department of Clinical Medical Sciences*

The Department provides services to the wider community through partnerships with the public health sector. The Child Health Unit and the Radiology Unit both provide clinical services to the Paediatric Hospital at the Eric Williams Medical Sciences Complex (EWMSC). The Radiology Unit in particular provides on-call commitments in diagnostic radiology to patients at the EWMSC. The Psychiatry Unit provides a psychiatric service for the North Central Regional Health Authority, including an in-patient service, a consultation-liaison service and one out-patient clinic.

Over the years the Department has cultivated links with other universities and organisations internationally. Our overseas partners include Hospital for Sick Kids in Toronto, Canada; the Royal College of Paediatrics and Child Health; the International Training and Education Centre in Health (ITECH) Washington, USA and the universities of Washington, Miami, Florida, Toronto, Birmingham and London. The Department is also a partner member of the Consortium of Universities for Global Health (CUGH).

### *Department of Clinical Surgical Sciences*

The Department facilitated a Regional Basic Phacoemulsification Course in Ophthalmology and a Workshop on Percutaneous Endoscopic Removal of Kidney Stones in Urology in conjunction with the Caribbean Urologic Association. An Operative Surgery Skills Workshop was held at the General Hospital in San Fernando as well as an Optics and Refraction Course and a Residents' Research Day.

### *School of Dentistry*

The School carried out various regional initiatives in 2010/2011. A team visit to the UWI Mona Campus on invitation to assist with consultations on the new DDS programme to be offered at Mona. A similar visit was made to Barbados where the team from the School met with the Honourable Minister of Health, other representatives of the Government of Barbados, the Chief Medical Officer, Barbados Dental Council representatives, and members from the health education accreditation body of Barbados.

The School continues to partner with the UWI Open Campus to offer the DSA Certificate. The certificate provides training for Dental Interns in collaboration between the Ministry of Health and the North Central Regional Health Authority.

### *School of Veterinary Medicine*

The School continues to provide diagnostic services to the food industry and individuals and mounts workshops on areas of interest to local and regional veterinarians by videoconference links to centres in Trinidad and Tobago, Jamaica, Barbados and Bahamas. Regular counselling is available to members of the public experiencing problems with their pet animals and livestock. Representatives of the SVM visit secondary schools to counsel students and to make presentations on opportunities in veterinary medicine as well as the matriculation requirements.

### *School of Advanced Nursing Education*

A leadership symposium was hosted in February 2011 with the theme *'Nurse Leadership: The Next Frontier for Quality Healthcare'*. The School is committed to providing visionary leadership in nursing education and the symposium served as a catalyst for a paradigm shift in nursing in Trinidad and Tobago.

## **REVENUE GENERATION**

The Department of Preclinical Sciences teaches Anatomy & Physiology to students from the College of Science, Technology and Applied Arts of Trinidad and Tobago (COSTAATT) and the University of Trinidad & Tobago (UTT).

The Department of Para-Clinical Sciences produces an Anatomical Pathology Manual, sales of which generate approximately TT\$15,000 per year.

At the School of Dentistry the Oral Histopathology Diagnostic Services and the Fixed Orthodontic Appliance Programme (Clinic) initiated earlier continues to generate a modest income, and more than that, a sound professional reputation for the School and the UWI. All clinical crown and bridge work now generates income. Similarly, restorative dentistry also earns an income. The Department also plans to generate more income by fabricating dentures at the technical laboratory of the School. In addition, the MFDSRCS training programme will be conducted at the School and is expected to generate income by way of students' fees.

The six business units established at the School of Veterinary Medicine (Aquaculture, Plastination, Diagnostic Services, Hospital Services, Food Safety and Continuing Education) generated some revenue during the academic year 2010/2011, their first full year of operation.



The Summer Programme offered by the School of Pharmacy generated over TT\$100,000.00 during the period under review.

## PROJECTED ACTIVITIES

The Department of Preclinical Sciences plans to revise the learning objectives of all courses to minimise duplication and gaps across the courses; improve operations of the four research clusters – Molecular Medicine, Neuroscience, Nutrition & Metabolism and Medicinal Plants; and organise a staff/graduate students training workshop on immune-based biochemical techniques.

The Department of Para-Clinical Sciences proposes to introduce a new assessment methodology for formative assessment using Extended Matching Questions (EMQs). With regard to research, the following areas are expected to present significant outcomes in the next academic year:

- *Prevalence and management of CNCDS - diabetes*
- *Respiratory disease*
- *Detection of viral carcinogens in cervical cancer*
- *Genetic abnormalities in thalassemias and breast cancer*
- *Detection of anti-cancer compounds from plant sources*

The School of Veterinary Medicine plans to implement a new DVM curriculum and to prepare for the Quality Assurance Review in March, 2012. Completion of a Self Study Report for the AVMA consultative site visit in the first semester of academic year 2012/2013 is also a priority. There are also plans to adopt a proactive approach in offering early admission to qualified extra-regional applicants into the DVM programme in an effort to recruit more overseas students.

The focus of the School of Advanced Nursing Education includes the review and possible restructuring of the current undergraduate programme offerings, continuous development, hiring and retention of more qualified staff and the development of a generic undergraduate 4-year

degree programme in Nursing. The School is also working to strengthen its research capability and to re-structuring functional units of the School's organisational structure. It will also continue to encourage collaboration with other Units within The University and with other institutions.

The School of Pharmacy plans to introduce Nanotechnology labs and courses, help move The University's research agenda forward, address staffing issues, expand official links with other entities, continue to revise the curriculum and to engage in a Quality Assurance Review exercise.

## DISTINGUISHED VISITORS

### *Department of Para-Clinical Sciences*

**Dr Nitin Aggarwal**

*PhD Research Assistant  
University of Wisconsin*

**Dr. Svein Dahl**

*Professor of Pharmacology  
University of Thomson*

**Dr. Ian Hosein**

*Consultant  
Department of Medical Microbiology  
North Middlesex University Hospital  
London, UK*

### *School of Dentistry*

**Professor Dhuru**

*Visiting Professor  
Marquette University*

### *School of Veterinary Medicine*

**Ms. Stacy Barran**

*Programme Manager, National Dietary Services Ltd.*

**Dr. Christine Gibbs**

*Consultant Radiologist  
United Kingdom*

**Mrs. Ingrid Herrera**

*CEO, National Dietary Services Ltd.*

**Mrs. Julia Hewitt**

*International Student Recruitment Manager  
Royal Veterinary College, UK*

**Mr. Cedric Lazarus**

*FAO Consultant  
Sub Regional Office for the Caribbean*

**Mr. Terence Mayers**

*Technical Consultant  
Food and Agricultural Organization (FAO)*

**Dr. Claire Sharp**

*Tufts University  
Cummings School of Veterinary Medicine*

### *School of Advanced Nursing Education*

**Dr. Randy Allen Jones**

*Assistant Professor  
School of Nursing, University of Virginia*

**Dr Joanna Bennett**

*Head  
The UWI School of Nursing  
Mona, Jamaica*

**Professor Emeritus**

**Charles Anthony Butterworth**

*Non-Executive of the NHS Institute for  
Innovation and Improvement  
United Kingdom*

**Ms. Reba Moyer Childress**

*Clinical Simulation Learning Centre Director  
School of Nursing, The University of Virginia*

**Dr. Jacqueline Comerasamy**

*Undergraduate Programme Director  
Division of Nursing and Health Care  
University of Glasgow*

**Professor Courtney Lyder**

*Professor and Dean, School of Nursing  
UCLA Medical Centre*

**Dr Beverly Malone**

*Chief Executive Officer of National League for Nursing  
New York*

**Ms. Stacy Johnson**

*Lecturer  
School of Nursing, University of Nottingham*

### *School of Pharmacy*

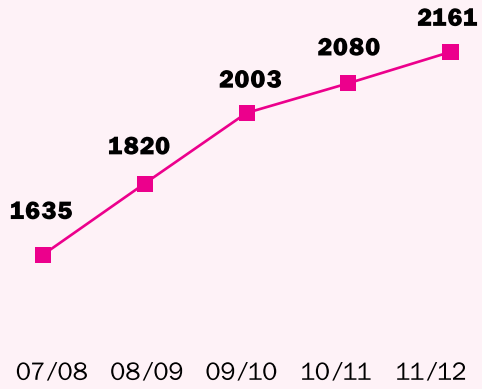
**Professor Martin D'Souza**

*Dean of Graduate Studies  
College of Pharmacy, Mercer University  
USA*

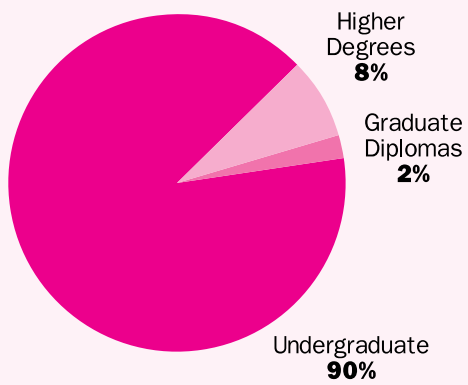
**Dr Hieu Tran**

*Founding Dean and Professor  
College of Pharmacy  
Sullivan University  
Louisville, KY  
USA*

**GROWTH IN ENROLMENT  
2007 - 2012**



**GRADUATES BY PROGRAMME  
2007 - 2012**





FACULTY OF  
**SCIENCE  
& AGRICULTURE**

**PROFESSOR DYER NARINESINGH**  
DEAN, FACULTY OF SCIENCE AND AGRICULTURE



## EXECUTIVE SUMMARY

The Faculty of Science and Agriculture maintained its position as the second largest faculty at the St. Augustine campus. It continues to focus, through its teaching and learning, graduate studies, research and outreach activities, on providing the human resource, equipped with the appropriate skills and competencies, needed to bring about the desired socio-economic transformation of the Caribbean region. In addition, through its myriad of interdisciplinary research activities and working with its various stakeholders, the Faculty has been focusing on finding solutions to Caribbean problems as well as in the vanguard of promoting the sustainable use of our natural resources.

### *Expansion of Access*

The Faculty was forced to consolidate its student intake especially at the undergraduate level in the face of a sustained increase over the last five years (43 %) which has placed considerable stress on its limited physical and human resources. Total enrollment stood at 4006 of which 3337 were registered in the School of Science and 669 in the School of Agriculture. The increased use of technology will be employed to address some of these restraints with the view of continued expansion of access as well as creating an enhanced interactive teaching and learning environment.

Growth at the graduate level has been very modest over the last two years. Graduate registration stood at 649 of which 453 were registered in the School of Science and 196 in the School of Agriculture. This represents only 16% of the total student intake and is below the projected target of 20% of the total student population for the faculty. A number of factors have contributed to this situation. These included heavy teaching loads of academic staff at the undergraduate level, large class sizes and a lack of adequate laboratory research facilities and research funding. In this context it should be pointed out that the faculty's strategic focus has been and continues to be on research degrees (MPhil and PhD) rather than on taught

Master's Degrees. However, the faculty is now actively considering the MSc as the route to the PhD rather than through the traditional MPhil route. This is expected to impact positively not only on our graduate intake but more significantly on both the quality and output rates of our graduates as well as income generation.

### *Curriculum Reform*

The Faculty continued to place *curriculum reform* as its number one strategic priority as part of its ongoing commitment to ensure that its curricula offerings are relevant and current and that it is a reflection of tomorrow's clients needs. The objective is to train our graduates to go out and create employment rather than seek employment. In this context stakeholder consultation has now become an integral component of the curriculum reform exercise. A number of departments have now infused a "skills matrix" approach to their continuing curriculum reform exercise linking these to the expected learning outcomes. Also "out of classroom" experience is now an integral part of the new curriculum especially in agriculture. Also most programmes now have "built in" internships, field courses, projects and practica. A "common set of skills and competencies" approach has been successfully employed in achieving harmonisation of curricula across the campuses. To date harmonisation at level one has been achieved. As such there can now be a seamless movement of students across the Science Faculties on the three campuses wishing to pursue programmes at the advanced level.

A number of new programmes were introduced during the reporting year. These included the BSc in Computer Science, the MSc in The Science and Management of Tropical Biodiversity (by distance) as well as the MSc in Agri-Food Quality and Safety and the launch of the MSc in Agribusiness in Guyana. At the graduate level three new courses were introduced in Novel Materials, Solar Energy Conversion and Digital Systems. Also developed and approved for introduction in 2011 was the BSc in Actuarial Science.



### *Graduation Statistics*

At the undergraduate level 626 (94 more than in 2009) students graduated with BSc (General) degrees in various academic disciplines offered by the faculty. Of these 421 were from the School of Science and 205 from the School of Agriculture. It should be noted that many of the programmes pursued by students in the faculty are multidisciplinary and transcends The School of Science and The School of Agriculture as well as other Faculties especially the Faculty of Social Sciences. 4.5 % of the students graduating received first class honours; 12% upper second class honours, 45% lower second class honours and 38.5% obtained pass degrees. This declining trend in the percentage of first/upper second class honours, as well as in the throughput rate has been observed since 2006 and correlates with the introduction of the GPA system of grading. A number of student support systems as well as reexamination of teaching and learning strategies and the associated modes of assessment to ensure that they are in alignment with the expected learning outcomes are being implemented to address these issues.

At the graduate level 56 students received MSc. degrees, 9 MPhil's and 4 PhD's. However, the throughput rate is still cause for concern. A number of systems (training sessions in graduate supervision for academic staff, regular supervisory committee meetings, staff/graduate student liaison committee meetings, weekly graduate seminar presentations, and presentations at regional/international conferences) are being put in place to address this issue.

### *Research Funding*

Access to adequate research funding has continued to be one of the major obstacles in the conduct of impactful research. This challenge has been addressed in a strategic way through the formation of interdisciplinary research clusters linked to national/regional developmental needs. Private/Public sector engagement in the early stages of the process is encouraged. Workshops in grant

writing proposals for academic staff were put in place. As a result of some of these initiatives, Departments have been able to secure significant external grant funding. The Department of Life Sciences attracted funding in excess of \$11.0M (TT) and the School of Agriculture was involved in joint projects involving regional and international partners in excess of 5 M (Can) and which focused on strengthening the region's food and nutritional security.

### *Major Projects Initiated*

As a result of increased emphasis being placed on impactful research and development in the faculty, a number of strategic multidisciplinary research clusters have been formed and projects, related to finding solutions to problems, and for which funding has been acquired have been initiated. These include among others:

- A new collaborative five-year project with USDA has been initiated to identify molecular markers for agronomic traits within the germplasm collection (CRU)
- *CariWatNetject*. This EU funded collaborative project seeks to strengthen the Caribbean scientific community in natural resources management and develop integrated watershed management plans focusing on Haiti and Trinidad and Tobago.
- *IDRC- McGill – UWI-CARICOM Food security Project*
- Development of a Certification System for Quality of Cocoa Beans in Trinidad and Tobago - this will allow local regulatory authorities to monitor and control quality of cocoa beans for export and local consumption.
- Characterisation of cocoa and chocolate flavour profiles, using sensory and chemical techniques - this will provide basis for maximisation of desirable flavours in local cocoa beans and development of high quality local chocolates.
- Biotechnology and Molecular Biology for plant and human health. This project involves



developing genetically improved anthurium, hot pepper, cacao and papaya .as well as developing rapid and accurate diagnostic tools for plant diseases of bananas, tomatoes and papaya among others

- Intelligent Systems. These include Knowledge data systems, Data Mining and Business Intelligence and Decision Support systems. The application areas are Health and Wellness and Poverty Alleviation, and Geospatial DSS
- **Centre for the Development of Enterprise (CDE).** The project “Caribbean Fine Flavour Cocoa Industry Commercialisation; Caribbean region; CAR-RFO” is supported by the CDE. The overall goal of this project is to address the challenges faced by fine or flavour cocoa producers in the Caribbean, particularly those of declining production, low productivity, food safety and other quality deficiencies. In addition this project seeks to promote the development of value-added products and agro-tourism associated with cocoa production.

### *Publications*

There were 128 publications in peer reviewed journals, 75 conference proceedings, 23 books/book chapters and 5 technical reports produced by academic staff members in the faculty. Noteworthy, is the wider spread of publications across the faculty. However, the Faculty’s per capita output for refereed journal publications (approx.1.5 per fulltime staff) is still below the expected norm of 2.0 per staff.

The research output and more importantly the impact of the research on socioeconomic development is expected to increase significantly with the formation of more strategic research clusters, partnering with the private sector, improved research facilities, increased funding and increase in the number of postdoctoral research fellows to drive the faculty’s research initiatives.

### *Repositioning the Faculty*

It is recognised by all that Caribbean economies are in urgent need of a continuous flow of competently trained professionals complemented by the conduct of relevant research to support its transformation from an economy historically based on protected markets and ‘screw driver type” industries to one that is technology-driven, competitive and market oriented, one that is rooted in a multi-sectoral approach that fosters linkages between STI and the agri-food sector in order to address critical developmental issues in the region such as food and nutritional security, energy security, ICM, environmental sustainability, climate change issues, poverty alleviation and rural development etc.

It was on this basis that a decision was taken to reposition the Faculty to better able to address these challenges. Part of this repositioning exercise involved a proposal to establish a Faculty of Food and Agriculture and a Faculty of Science and Technology as well as a Department of Geography. These proposals have been taken through the various approval stages at the Campus Level. Final approval at the University Council level is expected in March 2012 for implementation in August 2012. Also as part of the repositioning exercise, the former Department of Mathematics was separated into two new departments- a Department of Mathematics and a Department of Computing and Information Technology. This took effect from August 2011.

### *Public and Professional Services*

The Faculty continued to make significant contributions towards national/regional development through the varied public/professional services of its academic staff. These include:

- Membership on Boards of various public sector companies / organisations / advisory bodies including ADB, ACTT, CARIRI, EMA, COSTAATT, UTT, NAMDEVCO, IMA, NIHERST, TTBS, TABA, the Environmental Court, the Prices Council and the Cropper Foundation

- Secretariats for the Caribbean Agro Economic Society as well as CARISCIENCE and the Trinidad and Tobago Mathematics Olympiad are housed in the Faculty and manned by faculty staff.
- Training of secondary school science teachers in conjunction with the Ministry of Education
- Serving as moderators/examiners/curriculum developers for CSEC and CAPE science subjects
- Training workshops for various government ministries and NGOs, both locally and regionally
- Resource personnel to various NGO's and CBO's
- Resource personnel for CARICOM's regional transformation programme in agriculture and in Science and Technology
- Serving as reviewers and editorial staff for various regional and international journals.

### *Conclusion*

While the Faculty has seen significant, positive advances in many areas such as student intake, curriculum reform, enhanced teaching and learning environment, formation of strategic research clusters, stakeholder relations and international collaborations, as well as in its restructuring exercise, there are a number of critical areas that must be addressed as a matter of urgency. These include:

- greater realignment of our research agenda to socioeconomic developmental issues
- greater private sector participation in our research agenda from inception with the aim of commercialisation of our research
- more rapid progress in curriculum reform (stakeholder participation should be a critical component of this process)
- increased exposure to real life experiences of our students through service (authentic) learning
- greater emphasis revenue generation through commercialisation of services.

## **STUDENTS**

### *Department of Agricultural Economics and Extension*

Enrollment in the Department of Agricultural Economics and Extension grew by 13% over the previous year, thanks primarily to a doubling in the number of students (208) registered to pursue the Agribusiness Major. There were minor declines (between 5% and 14%) in the other four undergraduate and postgraduate programmes offered by the department.

### **Students Achievements**

- **Hazel Patterson-Andrews**, awarded the PhD in Agricultural Economics
- **Rhonda Arthur** BSc Nutrition and Dietetics (2010) - awarded a National Scholarship to read for an advanced degree in Modern Epidemiology at the School of Public Health, Faculty of Medicine, Imperial College London.
- **Nkosi Felix**-National Youth Awardee Prize - Youth in Agriculture, 2011
- **Moses Mike** - National Youth Awardee Prize - Youth in Information Communication Technology (ICT), 2011 and shortlisted for Caribbean Science and Agriculture Film and Video Competition, NIHHERST

### *Department of Food Production*

There were 361 students registered in the Department of Food Production, most of whom (144) were registered to pursue the Geography Major. The most outstanding Undergraduate student for the year was: Bernice Robinson while the top postgraduate student was Osborne Labban.

### *Department of Chemistry*

Enrollment in the Department of Chemistry remained steady at 380 students. Postgraduate enrollment also remained unchanged at 43 students. The top Undergraduate students were Calicia Charles and Ms. Kristy Gosine.

Eighty-five (85) students graduated with a major in Chemistry. At the postgraduate level two students were awarded PhD degrees - Ms. Julia Frank and Ms. Yomica Powder-George and two students were awarded MPhil degrees - Mr. Dave Cassie and Ms. Gina Jaggernaut. Nineteen students from the first cohort of the Master of Science in Occupational, Environmental and Safety and Health programme graduated in 2010/2011, eight of them with Distinction.

The CHEM<sub>IA</sub> (Chemist in Action) student group continued to operate its outreach programme to the chemistry students and the general student population. Their focus is to promote awareness of chemistry as an academic discipline and a career option and to assist with the overall development of the student. Some of their programmes included field trips to industries and the Forensic Science Centre; seminars; Mole Day Celebrations; participating in FSA Week and Chemistry's Orientation Programme.

### Department of Life Sciences

The most outstanding students (undergraduate and postgraduate) were Miss Jo-Anne N. Sewlal, PhD student who received the Caribbean Academy of Sciences – Third World Academy of Sciences Young Scientist Award 2010 from the Prime Minister of Antigua in that country in November 2010.

Higher Degrees were awarded to the following persons:

- Karen Polson** – PhD in Zoology
- Andrea R.M. Mohan** – MPhil in Environmental Biology
- Joan Mickle-Timothy** – MPhil in Microbiology
- Warren J. Thomas** - MPhil in Environmental Biology

### Department of Computing and Information Technology

One new programme, the BSc in Computer Science was introduced in September 2010. The top undergraduate students for the year were:

- Ms. Keisha Heeral, BSc General (Major: Computer Science, who received the Atlantic LNG Co. of Trinidad and Tobago Prize for the Most Outstanding Graduate.
- Ms. Gabrielle Pierre who graduated from the Evening University Programme with the highest GPA She received the prize from Medullan Inc. at the 16th FSA Annual Prizes Award Ceremony.

The Department graduated 76 undergraduate students and five postgraduate students – 2 MPhil and 3 MSc.

### Student success in academic competitions and awards received

The *Imagine Cup* Competition: This is an international student competition sponsored by Microsoft. Team “UWI Computing Science” (UWICS) emerged as the second-place winner with their ToddAlerts and MommAlerts which use the latest Information and Communication Technologies to improve maternal care and the care of infants with a special focus on immunisation and dietary needs.

The *U-Innovate* Competition: This is a regional software competition sponsored by the Caribbean Development Bank. Students from the department won both the first and second prizes with their mobile application for ToddAlerts and a system called “Bob”, an informative, educational, interactive, and user friendly mobile tour guide respectively.

### *Department of Mathematics and Statistics*

Ms. Delise Brathwaite was the top graduate in Mathematics for 2010/2011 Academic Year. She received the Winston A. Richards Prize for Statistics for the best year II and III performance in Statistics, the TATIL group prize for the best year III performance in Mathematics, Faculty Prize in the School of Science and First Class Honours Award

The Department graduated 64 undergraduate students during 2010/2011 and ten postgraduate students including one MPhil and five MSc students.

### *Department of Physics*

There were 304 Undergraduate students enrolled in the Department of Physics and 25 postgraduate research students. The top undergraduate student was Ramparas Mahadeo, BSc Physics/ Environmental Physics and Material Sciences.

## **STRATEGY APPRAISAL**

### *Department of Agricultural Economics and Extension*

#### **Teaching and Learning**

The Department improved classroom teaching through action research in the classroom including group learning, the use of Farmer Field Schools in Extension programmes in the Caribbean and engaging students to learn beyond the classroom through Regional Study tours.

#### **Curriculum Renewal**

The Undergraduate Diploma in Institutional and Community Nutrition and Dietetics was upgraded to an MSc. Programme and is awaiting approval before introduction and a proposal for the award of the MPhil and PhD in Human Ecology is being ratified for submission to the Board for Graduate Studies.

The following programmes were revised during the reporting period.

- *BSc Agribusiness Management*
- *BSc Agribusiness Major*
- *MSc Marketing and Agribusiness*
- *BSc Human Nutrition and Dietetics*
- *Diploma in Institutional and Community Dietetics and Nutrition*

#### **Research and Innovation**

The Department has identified specific research foci of regional importance: (i) Nutrition Education and Food Security; (ii) The impact of Climate change on Food Systems; (iii) Natural Resource and Environmental Management; (iv) Access to and control of resources for agricultural productivity by Gender (v) The use of Farmer Field Schools in Extension programmes in the Caribbean; (vi) Development of Reusable Learn Objects with specific research foci in various aspects of agribusiness, international trade policy, food safety, quality assurance, food systems, sanitary and natural disasters.

#### **Research Partnerships and Collaboration**

*CariWatNetject* is a collaborative project which seeks to strengthen the Caribbean scientific community in natural resources management and develop integrated watershed management plans focusing on Haiti and Trinidad and Tobago is well on the way in fulfilling its objectives This is project is being funded by the European Union. Dr. Carlisle Pemberton is leading the DAEE and UWI participation in this venture.

*The IDRC McGill –CARICOM Food security proposal* succeeded in winning the necessary funding from IDRC. The project was officially launched in June 2011. Data collection for this project has begun. **Dr. Isabella Granderson** is the DAEE and UWI Principal Investigator.

Dr Sharon Hutchinson was appointed Chairperson of the CARICOM Technical Working Group for the *Regional Food and Nutrition Security Policy*.

### *Department of Food Production*

#### **Teaching and Learning**

Significant practical components were introduced into the crop science and production course to reinforce/ stimulate learning and understanding of crop science and production theory. The learning activity also sought to foster team work and cooperation, instilling a positive work ethic in students.

The Department eliminated the final examination from AGRI 1000 (Practical Skills in Agriculture) and instead assessed students on a number of learning activities. The aim was to expose students to the business aspects of agriculture in Trinidad and Tobago and the employment opportunities available to them. They were also exposed to the development of value-added products which could be made from local commodities available at the farm. Learning activities included an Open Day event; agricultural stakeholders were invited to talk with students; a Sales Day and Cook-Out competition where students got the opportunity to market their produce.

Faculty continue to expand the use of blended learning in courses taught with the use of technologies such as podcasting, wikis, social book marking, online discussion fora, etc, to advance teaching and learning and create greater learning impact.

#### **Graduate Studies**

The MPhil/MSc./Postgraduate Diploma in Agri-Food Safety and Quality Assurance were introduced in 2010/2011.

#### **Research and Innovation**

The Department continues to participate in a very wide range of research projects that have as their major objectives, national and regional food security, food safety and human well-being and environmental sustainability.

#### *Research in progress:*

Ongoing projects are in the general areas of: (i) crop and animal production, commodity utilisation and post-production technology aimed at improving the status of food security through improved production strategies and enhanced production systems; (ii) food quality and safety, human geography, ornamental horticulture and landscaping to make a positive impact on the quality of life in the Caribbean Region; (iii) soil and water management, soil fertility and the physical geographical environment towards environmental sustainability.

### *Department of Chemistry*

#### **Teaching and Learning**

The curriculum renewal process has been ongoing for the past year. The Level I chemistry courses have been redesigned from two 6-credit courses to four 3-credit courses. Tutors have been appointed to all new students to provide academic advising. The mylearning platform is being used to more efficiently deliver courses and lecturers now routinely upload their lecture notes, tutorial sheets, and reading material for easy access to students.

For the CHEM2260 course (Basic Organic Chemistry I) a molecular models lab was implemented in the practical component with the set up of work stations where students are questioned orally to ensure concepts are understood. Tutorial groups are now smaller to allow for closer monitoring of students. Revision of curricula is being carried out in accordance with IDU guidelines and modes of assessment are being more closely linked to learning outcomes.

### **Graduate Studies**

Supervision of graduate students has been improved and ready access to modern instrumentation has increased the throughput rate. The strict adherence to Postgraduate Advisory Committee Meetings twice per semester for the past three years has encouraged closer supervision of postgraduate students. This, together with improved instrumentation and infrastructure, has contributed to the improved throughput rates. The deliberate scheduling of regular Graduate Seminars every semester has also helped students to complete their degree requirements in a timely manner.

### **Research and Innovation**

#### *Research Clusters*

The Department has repositioned its research efforts into three main clusters: Synthetic and Natural Products for Food, Agriculture and Medicine; Materials (Novel and Ceramic Materials) – focussing on industrial catalysts (Polymer & Chemical) and Bio-materials; and Environmental Chemistry including Food Safety and Environmental Safety.

#### *Major Research Completed*

##### **Denise Beckles**

- Biodiesel from used cooking oil: evaluation of production methods and engine emissions.
- The high costs of petroleum fuel use (both economic and environmental) have encouraged the investigation of other sources. Biodiesel is one such – The project evaluated both the optimum conditions for biodiesel production from a variety of waste oils as well as whether its use as a fuel can significantly reduce air pollution in the Trinidad and Tobago context.
- Determination and characterisation of sources and sinks of ozone depleting gases in Trinidad and Tobago and measurement of their emission rates. This research provided background

information in understanding of how the small volume use of ozone depleting substances would impact air borne concentrations in developing countries.

- Evaluation of Brassica juncea as a feedstock for biodiesel production. This project evaluated how a novel source of vegetable oil would perform as a feedstock for biodiesel production.
- Characterisation of endocrine disruption in aquatic systems in Trinidad and Tobago. Investigation into the presence and impact of a group of endocrine disrupting chemicals (found in artificial contraceptives) in a variety of sewage treatment plant effluents in Trinidad. The presence of estrone and 17-β estradiol was confirmed, while no conclusion could be made on the presence of 17-α ethinylestradiol. The morphological and histological impact on wild guppies at the sites were noted, and it was found that in 10% of the population, significant changes in body structure and gonad development was found.

Lead researchers: Dr. Dawn Phillip and Dr. Denise Beckles; MPhil student: Warren Thomas.

#### *Department of Life Sciences*

##### **Research and Innovation**

This research agenda focuses on 2 main areas, namely:

- *Biodiversity and Ecosystem Services.* The Department received a grant of US\$1,002,000 from the UNEP Global Environment Facility for research titled “Project for Ecosystem Services” (ProEcoServ). The project is collaborating with the 4 Government Ministries and Agencies on the economic valuation of a range ecosystem services to incorporate into physical planning and financial accounting in T&T. Research



students are working on modeling a range of ecosystem services such as soil retention and nutrient retention by hillside forest in the Northern Range, coastal erosion protection by coral reefs and seagrass beds in Tobago, carbon sequestration and insect pollination services to crop production in Nariva wetland. The project is led by a Steering Committee, Chaired by the Permanent Secretary of the Ministry of Planning and the Economy.

- **Biotechnology and Molecular Biology for plant and human health.** Work is proceeding on developing genetically improved anthurium, hot pepper, cacao and papaya. Research also involves developing rapid and accurate diagnostic tools for plant diseases of bananas, tomatoes and papaya among others.

### Major Research in Progress

- Development and proof of efficacy of a lethal ovitrap for dengue prevention. The goal of this research is to effect a reduction in the number of new human infections. This is expected to be achieved through the use of a novel invention – the Attractant-Bait Lethal Ovitrap (ALOT). The development of the ovitrap is based on over 20 years of research surrounding the laying behavior of the *Aedes aegypti* mosquito. ALOT is a lethal trap designed to collect the *Aedes aegypti* eggs and kill female mosquitoes visiting the traps. The trap is intended to be a key component of community- based dengue – management programs.
- Improving hot pepper yields through the development of hybrids.
- Isolation, purification and identification of cultivable endophytes of *Artocarpus altilis* (breadfruit) and *Artocarpus camansi* (breadnut) shoot explants.

- Effect of maturation and juvenility of *Artocarpus altilis* shoot tip and nodal explants on *in vitro* culture establishment.
- Micopropagation of *A. altilis* using a temporary immersion system.
- Effect of light on *in vitro* tuber formation of cassava storage organs.
- Effect of arbuscular mycorrhiza isolated from *Artocarpus altilis* roots on acclimatization of rooted stem cutting of *A. altilis* under greenhouse conditions.
- Assessment of the status and ecology of plant species of conservation concern in the Aripo Savannas Environmentally Sensitive Area in north central Trinidad.
- Development of methodology for remote sensing of methane emissions from a tropical wetland.
- Biochemical, Molecular and Tissue Culture Studies on Root and Stem Tuberization in cassava (*manihot esculenta*. Crantz)
- National Diabetes School Screening programme

### Department of Computing and Information Technology

#### Teaching and Learning

##### Help Desk

The Department introduced a 'Help Desk' for giving extra tuition to students who were performing poorly in certain courses (Comp 1100; Comp 1200 and Comp 2000) which had consistent high failure rates. Lecturers identified students who were struggling with these courses and the Department contacted those students to inform them of the 'Help Desk'. The 'Help Desk' has proven to be very beneficial for the students who utilised it.

##### Pilot Project of Blended Learning Teaching

Most of the courses in the department are offered as technology-enhanced delivery using myeLearning. During the summer 2011, one course, INFO 1420 – Programming Fundamentals, was offered primarily as an on-line course (with some practical face-to-face

sessions). This initiative was introduced to find solutions to address some of the existing challenges faced especially by Evening University (EU) students of the Department. The objective was to provide flexible options for existing students as well as to create opportunities to reach a wider target market for the Department's EU Programme. This pilot project was in keeping with the Department's vision of offering online degree programmes.

### **Graduate Studies**

#### ***Administration***

The Department formalised systems to streamline the administration of MPhil and PhD students. This included organising half-day sessions for postgraduate seminars as well as scheduling and monitoring meetings of Advisory Committees. Post Graduate students were also encouraged to present their research findings at International Conferences/Meetings.

#### ***Research in Progress***

- E-Learning Projects include educational mobile applications, educational games, Learning Content management systems for delivering and management of educational content and online tutors.
- Intelligent Systems. These include Knowledge data systems, Data Mining and Business Intelligence and Decision Support systems. The application areas are Health and Wellness and Poverty Alleviation, and Geospatial DSS.
- Personalisation, Adaption and Usability of Web systems.
- Watermarking, Image processing and Artificial Intelligence.
- Wireless and mobile technologies and Web technologies and Quality of Service and distributed systems.

### ***Department of Mathematics and Statistics***

#### **Teaching and Learning**

The BSc in Actuarial Science received final approval for introduction in August 2012.

#### **Graduate Studies**

To improve the delivery of graduate studies the Department has set up Advisory Committees for postgraduate students and these have been continually meeting every semester resulting in clear improvements in graduate supervision and graduate student output. The Department has graduated ten postgraduate students in 2010/2011 compared with two students in 2009/2010.

The department has also been engaged in the curriculum reform of its postgraduate programme. A number of courses have been updated.

### ***Department of Physics***

#### **Teaching and Learning**

The major in Physics has been revised and work has started on the development of a BSc in Physics with Education.

#### **Graduate Studies**

Three new courses were developed at the postgraduate level to help provide postgraduate level courses required for the MPhil and PhD requirement and leading to the development of a Master's of Physics (MPhys). Work has started on this programme.

Staff facilitated training abroad for postgraduate students through grants and split-site scholarships. Funding received from the Campus Research Fund and support funding from the Department has allowed continued research by graduate students. Five postgraduate students presented work at conferences and seminars during the reporting period.

## Research and Innovation

The research focus in the Department includes Environmental Physics and Renewable Energy, Materials Science, Fuel Cell and Lithium Battery, Quantum Physics, Electronics, Fiber-Optics, Optoelectronics, Astronomy and Medical Physics and Bioengineering.

### *Cocoa Research Unit*

#### Research in Progress

#### *Evaluation of cocoa germplasm for resistance to witches' broom disease – Funded by World Cocoa Foundation.*

The project supports the screening of germplasm within the International Cocoa Genebank for resistance to witches' broom disease to identify sources of resistance that can be used by breeders to develop resistance. It uses the mass spray screening technique followed by validation of resistance using the agar-droplet method.

#### *Collaborative Research projects with CIRAD, France.*

Under the collaborative arrangement between CIRAD and CRU two cocoa scientists are assigned to conduct research in the areas of 'Cocoa Genetics' and Cocoa Post-Harvest Processing'. The projects in the genetics area focus on identifying suitable markers including SNP markers for the rapidly and cost-effectively identifying mislabelled accessions; understanding the genetic diversity of *Theobroma cacao* in the genebank and to develop molecular markers for important agronomic traits including resistance to yield and yield components, morpho-physiological descriptors, diseases and flavour attributes.

The projects in the 'post-harvest' area focus on (a) developing a micro-fermentation and drying system capable of evaluating a large number of genotypes based on small batch fermentation and drying; (b) identification of the microflora

during the micro-fermentation using DNA extraction and PCR; (c) spectral evaluation (NIRS, front-face fluorescence spectroscopy) in relation with biochemical composition (analysis of purines, amino acids, proteins and phenolic compounds) of the cocoa sample; and (d) sensory evaluation within selected germplasm groups within the ICG,T.

#### *USDA Molecular Fingerprinting project:*

This is collaborative project with Agricultural Research Service of the USDA, Beltsville to fingerprint the accessions in the ICG,T, and to estimate the level of (mis)labelling heterogeneity within plots of individual accessions at the International Cocoa Genebank, Trinidad (ICG,T). A new five-year agreement for collaboration between the two organisations was signed.

#### *World Bank Development Market Place project (WBDM) May 2009- July 2011*

The Cocoa Research Section of the Ministry of Food Production, Land and Marine Affairs (MFPLMA) and the Cocoa Research Unit (CRU) of the (UWI) joined with Bioversity International and the University of British Columbia at Vancouver to execute a project to promote and utilise relic cacao from Trinidad and Tobago with funding from the World Bank.

The 104 relic cacao trees identified will be conserved in the local genebank as aTrinitario germplasm for distribution to farmers, and will be utilised for breeding new varieties with enhanced flavour and yield attributes to augment the already outstanding Trinidad Selected Hybrids. A new linked to the Cocoa Research Unit's website entitled "Trinitario" has been developed to share the information emerging from the project.

*Cocoa of Excellence (CoE) 2011 – International Cocoa Awards (ICA)*

This is an international project to reward the best quality cocoa samples produced by farmers under various categories. The project aims to link the producers of best quality beans with high quality chocolate manufacturers. CRU received and stored the fermented and dried bean samples from Trinidad and Tobago for the CoE. Rapid physical and sensory analyses of all the Trinidad and Tobago CoE samples were performed on behalf of the Cocoa and Coffee Industry Board and MFPLMA and selected the best for shipping to the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), France for participation in this event. Samples selected later went on to do exceptionally well in the competition with a Trinidad sample capturing first place in the *spicy* category.

*Project to assess the quality attributes of the Imperial College Selections (ICS Project)*

Thirty (30) clones of the Imperial College Selections (ICS) accession group were examined in an unprecedented manner. CRU has assessed traits of economic importance ranging from physical to organoleptic attributes (including butterfat content), as well as, other interesting and potentially valuable attributes such as antioxidant potential, spectral and aroma volatile fingerprints, purines, polyphenols, amino acid profiles, reducing sugars, acidity (including organic acids). Heavy metal (Pb and Cd) contents of fermented and dried bean samples were assessed in the 30 clones to examine clonal effect on heavy metal accumulation.

*Evaluation of Improved Trinidad Selected Hybrids for resistance to Black Pod Disease*

This is a collaborative research project between the Ministry of Food Production, Land and Marine Affairs (MFPLMA) and the Cocoa Research Unit, and funded by the MFPLMA. The project aims to improve the level of resistance to blackpod disease inherent in the TSH population by introgressing genes from the Genetically Enhanced Populations (GEP) developed by the Cocoa Research Unit. Under the arrangement the pollination, nursery development and field evaluation would be conducted by the MFPLMA while the early screening for resistance will be carried out by staff of the CRU.

*Centre for the Development of Enterprise (CDE)*

The project “Caribbean Fine Flavour Cocoa Industry Commercialisation; Caribbean region; CAR-RFO” is supported by the CDE. The overall goal of this project is to address the challenges faced by fine or flavour cocoa producers in the Caribbean, particularly those of declining production, low productivity, food safety and other quality deficiencies. In addition this project seeks to promote the development of value-added products and agro-tourism associated with cocoa production. A diagnostic phase of this project was conducted in 2010 and led by the CIRAD. The CRU, UWI was selected to be the lead consultant for the initial step of the project in a phase entitled: “Communication, Mobilisation and Institutional Strengthening”. The key activity in this initial step was to communicate and advise stakeholders (in collaboration with CIRAD) in seven Caribbean territories on the findings of the diagnostic phase of the project, record the expectations of stakeholders and inform them of their obligations to the project and investments required as well as to mobilise their participation.

### *Training Projects*

The CRU provided training in Flavour Profiling to participants transitioning from the banana industry to cocoa, to help them determine optimum fermentation and drying, associate defects in cocoa liquors and chocolates with problems in the post-harvest processing practices, develop capacity to detect fine flavours and other physical and chemical quality parameters. Another course in Molecular characterisation was designed to enable participants set up a molecular laboratory, undertake molecular characterisation of cocoa varieties, and analyse the results to make deterministic conclusions.

The Unit provided a 3 month training course to four technicians from Uganda, funded by the Belgian company, JHB International. Training included the establishment of clonal and seed gardens, characterisation of varieties, cocoa propagation, establishment of a cocoa plantation, integrated pest management in cocoa and post-harvest management.

Training in Cocoa Propagation Methods and Flavour profiling/ postharvest technology were also provided to participants from Grenada and Ghana respectively. Technical Assistance was provided as well to the Jamaica Cocoa Farmer's Cooperative with regard to identification of cocoa genotypes in Jamaica and using DNA fingerprinting

*Other projects included* Investigation and Prevention of Heavy Metal and Ochratoxin A contamination of Cocoa in Trinidad and Tobago (in collaboration with the Departments of Chemistry and Food Production); a study of the genetic and genomic bases of cocoa resistance and quality traits); and a collaborative project with the University of Reading was initiated on studying genotypic differences in bioaccumulation of cadmium.

## FACULTY OUTREACH

### *Department of Agricultural Economics and Extension*

#### **Caribbean Agro-Economic Society Conference**

The Department of Agricultural Economics and Extension co-hosted the 29th West Indies Agricultural Economics Conference, the biennial activity of the Caribbean Agro-Economics Society (CAES), in collaboration with the Ministry of Agriculture St. Vincent and the Grenadines from the 17th - 21th July, 2011 in St. Vincent and the Grenadines. The theme of this conference was *“Agribusiness as the Path to Sustainable Agricultural Development in the Caribbean”*.

#### **Journal of Tropical Agriculture**

The Department continues to manage the School of Agriculture journal *Tropical Agriculture*, which has resulted in the publication becoming current.

### *Department of Food Production*

The Department's contribution to strengthening the regionality of the University included staff involvement in the CariWatNet (Caribbean Water Network) watershed management and sustainable agriculture project (Trinidad and Haiti), funded by the European Commission and in collaboration with Wageningen University, Holland; the agrotourism and sustainable banana production pilot project for St. Vincent and the Windward Islands and the research and promotion of Fair Trade policy for bananas in the Windward Islands.

At the national level, departmental contributions included: involvement in the qualitative and market analysis of local consumption with the T&T Goat and Sheep Society; continued work with farmers towards the development of Neo-tropical Animal Production models for the following species: Agouti (*Dasyprocta leporina*), Collared Peccary (*Tayassu tajacu/Peccary tajacu*), Lappe (Agouti paca), and other Neo-tropical species and on the development of the Dairy Goat Industry and Small Ruminant Industry along with Ministry personnel.

International collaboration and outreach included an ongoing collaboration with the following international institutions on Sugarcane Feeding and the Development of Production systems for Neo-tropical animals: INRA Antilles-Guyane; EMBRAPA, Belem, Brazil; Universidade Estadual de Santa Cruz; Ilheus, Bahia, Brazil, and Universidade do Para, Belem, Brazil.

#### *Department of Chemistry*

The Department hosted four secondary schools and tertiary institutions: UTT, ASJA Girls College San Fernando, St George's College Barataria and the Signal Hill Secondary School from Tobago. Visitors were treated to demonstrations and hands on instruction on separation and analytical techniques: simple, fractional and steam distillation, gravimetry, chromatography, as well as spectroscopic techniques: UV, IR, mass spectrometry, NMR.

The Department contributed to the understanding of the Fukushima nuclear disaster through interviews on T&T television and radio programmes, and talks at schools. Closer to home, the Master of Science in Occupational and Environmental Safety and Health Unit hosted a Seminar on *Road Traffic Crashes in Trinidad and Tobago* held in June 2011 at the Hilton Trinidad; the Cocoa Research Unit and the Chemistry Department have been working together in the development of cocoa quality systems; and the examination of theses and the MPhil / PhD. upgrade process has been facilitated with the collaboration of the other Chemistry Departments in Mona and Cave Hill.

#### *Department of Life Sciences*

The Department held a Research Symposium entitled "Making the Linkages between Science and our Environment" in April 2011 involving undergraduates, postgraduates and faculty. The presentations were judged and prizes were awarded for the best poster and oral presentations.

#### *Department of Computing and Information Technology*

The Department continues to strengthen links with the Computer Science Department of the University of Central Florida. Prof. Sheau Lang from University of Central Florida lectures COMP 6560 (Computer Forensics), one of our courses in the MSc programme. Several of their professors serve as External Examiners for the department's courses.

Industry stakeholders were invited to a workshop at which the research work of the department was presented. Stakeholders were also invited to make presentations. Discussions are also taking place with them on how they may contribute to curriculum improvements and the development of the Internship Programme.

#### *Department of Physics*

Members of the Department engaged in a variety of outreach activities. R. Saunders acted as a mentor to young men in the East Port of Spain area; I. Haraksingh chaired the Trinidad and Tobago Math Olympiad and trained students from secondary schools; and S. Haque delivered a lecture to the Caribbean Youth Science Forum (CYSF) titled "*Oops ! Did I do that? A tale of blunders and misconceptions in Physics and Astronomy*". This lecture was aired repeatedly on television. She also wrote several news articles in daily newspapers on astronomy, recorded a science feature with TV 6 in February and March 2011 and produced Space News – a regular e-news releases on topics of Astronomy to the region. She also assisted a nearby school for children with disabilities – ARI's Institute for All Inclusive Learning, Curepe. Dr Haque was recognised as a Science Icon by NIHERST.

The Department is also involved in collaborations with other institutions such as University of Swansea, Charite', Humboldt University and Free University – Berlin, State University New York, Punjab Technical University, Ryerson University, Guru Nanak dev university, Amtistar College of Engineering & Technology.



### *The Cocoa Research Unit*

Two CRU staff members travelled to Hacienda San José, Carúpano (Venezuela) to discuss CRU's involvement in transferring germplasm (20,000 plants) from the Franceschi farm to the Dominican Republic via quarantine in Barbados.

The CRU completed a report on 2010 quality analyses and received fermented and dried bean samples of local commercial and experimental cocoa varieties for physical and sensory analyses for 2011. The collaborative project involving the Cocoa Research Section of the Research Division, Ministry of Food Production, Land and Marine Affairs (MFPLMA) and The Cocoa Research Unit, The University of The West Indies entitled: Project 13: Improvement of Resistance to Black Pod disease in Trinidad Selected Hybrids (TSH). The CRU also conducted cocoa bean quality assessments for the Cocoa and Coffee Industrial Board of Trinidad and Tobago (CCIBTT) and Cocoa Farmers Cooperatives.

### *Herbarium*

The Herbarium is collaborating with TTHSI (Trinidad and Tobago Health Science Initiative)/CaHMRI (Caribbean Herbal Medicine Research Institute) based at UTT and the UWI's Pharmacology Unit, to screen indigenous medicinal plants in Trinidad and Tobago for clinical trials. Meanwhile, the local internship programme continues to strengthen links with the University of the Southern Caribbean, Maracas Valley, St. Joseph.

Internationally, research on the flora of Trinidad and Tobago continues at the Natural History Museum and the Royal Botanic Gardens Kew in England and funding from the Campus Research and Publication Committee allowed a local PhD student to undergo training in lichen preservation and identification techniques at the NHM. The Herbarium was also able to participate in the Fairchild Challenge, an environmental education programme designed by the Fairchild Botanic Gardens to work with

schools to promote interest in the environment and the importance of conservation of biodiversity. Finally, collaboration with the Botanic Gardens Conservation International (BGCI) based at Kew in the UK aims to restore and develop the campus arboretum.

## REVENUE GENERATING / COST CONTAINMENT ACTIVITIES

The Faculty generated additional income through consultancy services, grants, self-financing programmes such as the MSc programme (OESH), short training courses, grants and the provision of services such as Electron Microscope services and Electronics workshop services. The commercialisation of research such as the Timber Drying facility (housed at the UFS) also has earning potential. Fourteen Departmental Projects over the last 10 years are being actively considered for commercialisation by the Caribbean Industrial Research Institute (CARIRI). The Business Development Unit is facilitating this development.

## PROJECTED ACTIVITIES

The Faculty intends to operationalise use the GC/MS, ICP-MS and the Axopatch 200B Patch Clamp which will significantly impact on research output. Gas chromatography-mass spectrometry (GC-MS) combines the features of gas-liquid chromatography and mass spectrometry to identify different substances within a test sample and to identify trace elements in materials that were previously thought to have disintegrated beyond identification. Inductively coupled plasma mass spectrometry (ICP-MS) is extremely sensitive and allows researchers to determine of a range of metals and several non-metals at concentrations below one part per trillion. The advantages of this method include high speed, precision and sensitivity compared to atomic absorption techniques. The Axopatch apparatus is used to conduct single-channel recordings and other applications that require an excellent signal-to-noise ratio.

The Food Safety Cluster is now operational and it is expected that in 2012/2013 the team will be reaching out to assist the regional governments. New programmes include introduction of the already approved BSc Agriculture programme in the 2012/2013 academic year along with a new Major in Medical Physics (BSc level) and a BSc in Mathematics for Evening University students. The Faculty is also developing an MSc in Renewable Energy.

A significant amount of work is expected to be conducted at the proposed site for the new Field Station at Orange Grove as the department prepares for full occupancy of the land given in the shortest possible timeframe. The area has to be thoroughly assessed for determination of best use. A distance training programme is expected to be mounted for banana farmers in St. Vincent and there is a proposal to convert the CRU from a single campus unit to a regional centre.

## **DISTINGUISHED VISITORS**

### *Department of Agricultural Economics and Extension*

#### **Inteaz Alli**

*Professor, Food Science and Agricultural Chemistry,  
Faculty of Agricultural and Environmental Sciences,  
McGill University, Canada*

#### **Sylvia Borucki**

*Research Associate and McGill Project Manager,  
Animal Science Department, Faculty of Agricultural and  
Environmental Sciences,  
McGill University, Canada*

#### **Professor Gary Briers**

*Department of Agricultural Leadership, Education, and  
Communications  
Texas A&M University.*

#### **Paulette Bynoe**

*Director, School of Earth and Environmental Sciences,  
University of Guyana*

#### **Renaud DePlean**

*Senior Programme Specialist,  
IDRC, Canada*

#### **Professor Kim E. Dooley**

*Department of Agricultural Leadership, Education and  
Communications  
Texas A&M University*

#### **Associate Professor Frances Gelwick**

*Department of Wildlife and Fisheries at Texas A&M University.*

#### **Katherine Gray-Donald**

*Associate Professor, School of Dietetics and Human Nutrition,  
Faculty of Agricultural and Environmental Sciences,  
McGill University, Canada*

#### **Assistant Professor Amy Harder**

*Department of Agricultural Education and Communication,  
University of Florida*

#### **Oudhu Homenauth**

*Director of NARI ( Project Country Coordinator)  
Ministry of Agriculture, Guyana*

#### **Professor Ronald Lacey**

*Department of Biological and Agricultural Engineering,  
Texas A&M University.*

#### **Sonia Laszlo**

*Associate Professor,  
Department of Economics,  
Institute for the Study of International Development,  
Faculty of Arts, McGill University, Canada*

**Professor James Lindner**

*Department of Agricultural Leadership,  
Education, and Communications at Texas A&M University*

**Professor Daniel Lineberger**

*Professor of Horticulture and  
Associate Head for Undergraduate Programs  
Department of Horticultural Sciences, Texas A&M University*

**Associate Professor Leonardo Lombardini**

*Department of Horticultural Sciences at Texas A&M University*

**Chandra Madramootoo**

*Professor and Dean,  
Faculty of Agricultural and Environmental Sciences,  
Bioresource Engineering,  
McGill University, Canada*

**Assistant Professor Lisako McKyer**

*Department of Health & Kinesiology, Texas A&M University and the  
Department of Social & Behavioural Health, Texas A&M Health  
Science Center*

**Assistant Professor Corliss Outley**

*Department of Recreation, Parks and Tourism Sciences, Texas A&M  
University*

**Leroy Phillip**

*Associate Professor, Animal Science and  
Associate Director, McGill Nutrition and Food Science Centre,  
Faculty of Agricultural and Environmental Sciences,  
McGill University, Canada*

**Associate Professor Sorin Popescu**

*Department of Ecosystem Science and Management at  
Texas A&M University*

**Associate Professor Grady Roberts**

*Department of Agricultural Education and Communication, and  
Director for the Center of Teaching Excellence,  
University of Florida*

**Susan Robertson**

*Grant Administrator,  
IDRC, Canada*

**Assistant Professor Robert Strong**

*Department of Agricultural Leadership, Education, and  
Communications, Texas A&M University*

**Department of Food Production**

**Hon. Mr. Vasant Bharath**

*Minister of Food Production, Land and Marine Resources*

**Mr. Glenroy Innis**

*European Consultant,  
Caribbean Regional Expert, European Union*

**Dr. William Hickey**

*Dept of Soil Science,  
Univ. of Wisconsin-Madison*

**Dr. Harjit Singh Rekhi**

*Canadian Food Inspection Agency (CFIA),  
Canada*

**Dr. Santiago Rivas**

*Center for Agriculture and Forestry Development Inc (CEDAF),  
Santo Domingo, Dominican Republic*

**Department of Chemistry**

**Mr. Paul Brown**

*Coordinator MSc OESH,  
Department of Chemistry  
Faculty of Pure & Applied Sciences, UWI, Mona*

**Professor Herman De Kruiff**

*International Lecturer, Toxicology  
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**Professor Yvette Jackson**

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**Professor Anne Magurran**

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**Professor Reinhard Eckhorn**

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**Prof. Peter Malin**

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**Benson Botwade**

Manager, EP Investments, Uganda

**Oscar Cadet**

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**Katie Brandt and Tom Cary**

Michigan

**Christian Cilas**

CIRAD, Montpellier, France

**Margaret Chow**

Business Development Office

**Maureen Clement**

Arouca, FOBG

**Yacsire Cutler**

OAS, Washington, DC

**Lyle P. Donawa**

Sugar Representative,  
Agricultural Society of Trinidad and Tobago,  
Tods Rd, Freeport

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Professor, Kyoto University, Japan

**Graeme Dow**

Financial Controller, Tucker Energy Service

**Michelle End**

CRA Ltd., UK

**Harriet Polly Etang**

Agronomist, EP Investments, Uganda

**Mark Ford**

Deputy Director, USDA-FAS, Florida

**Kenroy Forteau**

Cocoa Propagation General

**Alberto A. Franceschi**

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**Jose Vincente Franceschi**

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*Board of Director, Cocoa and Coffee Industry Board, Caura*

**Martin ten Hoopen**

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**Lawrence John**

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**Desmond Jodusingh**

*Vice President, Bachelors Hall Estate, Bat PO, St. Thomas*

**Alana Juto**

*TCF*

**Leonardo Lombardini**

*Asst. Professor, Texas A&M University*

**Daniel Kadow**

*Post doctoral Research Fellow, University of Hamburg*

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**Daniel Lewis**

*Director, Ministry of Agriculture, Botanical Gardens, Grenada*

**R Daniel Lineberger**

*Texas A&M University.*

**Ellen Ligterningen**

*Chocolate producer, Suriname*

**Katherine Kumar**

*CEO, Chamber of Commerce*

**Bernard & Katherine Long**

*Avondale Estate, Brasso Seco*

**Charles Merry**

*Manager, Santa Cruz Estate*

**Guido Marcelle**

*Nutmeg Revitalization Strategy Committee, Grenada*

**Joseph A Murren**

*Gran Couva Estate*

**Garvin Nicholas**

*Hon.Ambassador to London*

**Katherine Nishiura**

*Director, USDA-FAS, Miami*

**Marie Louise Norton-Murray**

*Actg Director, Centre for Development of Enterprise, DR.*

**Nyahuma Obika**

*Hon. Ambassador, Abuja*

**Ariko James Otek**

*Agronomist, EP Investment, Uganda*

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*Managing Director, Tucker Energy Services,  
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*Ambassador to the United States*

**Rianna Paul**

*Chamber of Commerce*

**Carlisle Pemberton**

*Chairman, Cocoa and Coffee Industry Board*

**Pamela Anyoti Peronaci**

*JHB International, Fine Flavour Cocoa & Spices,  
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**Jerome Poon Tip**

*Accountant, 27 Moka Heights, Maraval*

**David Preece**

*CRA Ltd., UK*

**Michael Presig**  
*Island Cocoa Ltd., Switzerland*

**Marina Piper**  
*OAS, Trinidad & Tobago*

**Hamza Rafeek**  
*Hon. Ambassador to Brazil*

**Sham Rampersad**  
*1162 Naparima Mayaro Road, Tableland*

**Roxana Reyes**  
*OAS, Washington, DC*

**Max Reynes**  
*CIRAD, Montpellier, France*

**Sandra Richards**  
*UWI Centre, Cave Hill Office*

**Bruno Rivas**  
*Cocoa and Coffee Industry Board*

**Ramgopaul Roop**  
*Tucker Energy/ TTABA*

**Winston Romany**  
*Island Cocoa Ltd, Santa Cruz*

**Winston R Rudder**  
*Chairman, The Cropper Foundation*

**Eric Rosenquist**  
*World Cocoa Foundation, Washington*

**Gour C. Saha**  
*Arthur Lok Jack Graduate School of Business*

**Jude Lee Sam**  
*President, Montserrat Cocoa Farmer's Cooperative, Gran Couva*

**Joseph Sampson**  
*Quantity Surveyor, Ebonite Drive, Sangre Grande*

**Miranda Sandlin**  
*Texas University*

**Astrida Saunders**  
*Exotic Mountain Pride, Santa Cruz*

**Stephan Saunders**  
*Board of Director, Cocoa and Coffee Industry Board, Tamana*

**Ed Seguine**  
*Chocolate Research Fellow, MARS Ltd.*

**Clause Severine**  
*Agronomist, EP Investment, Belgium*

**Virginia Sopyla**  
*Programme Coordinator, World Cocoa Foundation, Washington*

**Judith Theodore**  
*St. James, FOBG*

**Julie Van Borin**  
*Belgium*

**Bart Van Cauwenberghe**  
*Chocolatier, Belgium*

**Steven Watson**  
*Secretary/ Manager, Cocoa Industry Board, Jamaica*

**Clayton Williams**  
*President, Jamaica Cocoa Farmers' Association,*

### *Herbarium*

**Melissa Abdo**  
*Fairchild Tropical Gardens  
Miami, FL, USA*

**Prof. M.J. Alexander**  
*University of Toronto  
Toronto*

**Yacsire Cutler**  
*OAS  
Washington, D.C., USA*

**Dr. Larry R. Noblick**  
*Montgomery Botanical Centre  
Miami, FL, USA*

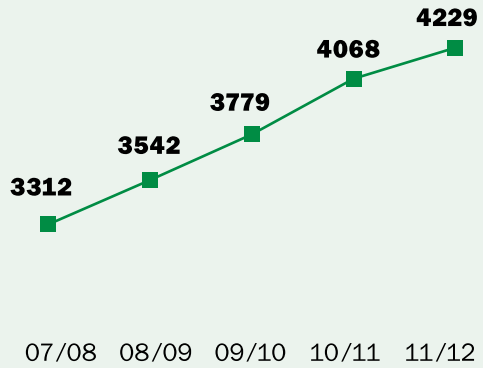
**Marina Piper**  
*OAS  
Washington, D.C., USA*

**R. Reyes**  
*OAS  
Washington, D.C., USA*

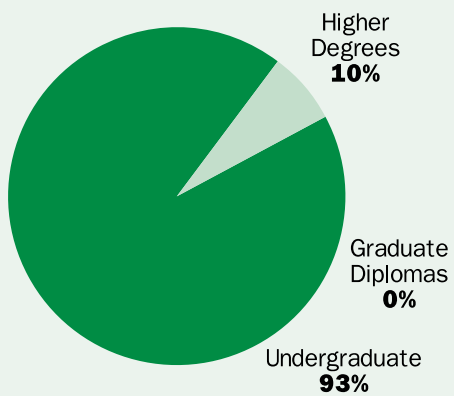
**Juan Rivera Jr.**  
*Fairchild Tropical Gardens  
Miami, FL, USA*



**GROWTH IN ENROLMENT  
2007 - 2012**



**GRADUATES BY PROGRAMME  
2007 - 2012**





# FACULTY OF **SOCIAL SCIENCES**

**DR. HAMID GHANY**  
DEAN, FACULTY OF SOCIAL SCIENCES



## DEAN'S MESSAGE

In the penultimate year of the current UWI Strategic Plan, 2007-2012, the Faculty of Social Sciences continued to make progress towards achieving its goals consistent with the strategic themes identified in the Strategic Plan.

In 2010/2011, on campus enrollment in the Faculty approached 6,000 students and is expected to cross that number in the following academic year. The rate of growth was about 4%. There was a 58% increase in the number of students enrolled in the Evening University undergraduate programmes in 2010/2011. This figure accounts for more than half of the target of 3000 students set for the enrollment in the Evening University by 2011/2012 on the campus. Postgraduate enrolment also continues to increase and the faculty continues to have the largest number of students registered at the St. Augustine Campus.

As the student population in the Faculty of Social Sciences continued to expand in 2010/2011, there was a corresponding demand from the public and private sector for new courses and programmes. In addition to a number of new courses and revisions to existing programmes, we added one new undergraduate programme in Insurance and Risk Management. The Trinidad and Tobago Insurance Institute was instrumental in the development of the programme to cater to the needs of that sector.

The quality of our students continues to be high. Two full-time PhD students in the Department of Management Studies are on UWI scholarships. Four graduate students in the Department of Economics were awarded scholarships to pursue doctoral degrees at reputable universities abroad. In addition, several undergraduate and postgraduate students benefitted from internships in the public and private sectors.

Full-time and part-time academic staff in the Faculty continued to receive training in teaching and learning, academic advising and graduate supervision from the Instructional Development Unit. Over 40 staff members enrolled in programmes leading to certification in tertiary level teaching. We are particularly proud of Dr. Charlene Roach, Lecturer in the Department of Behavioural Sciences, who won one of the prestigious Guardian Life Premium Teaching Awards in 2010.

Research continues apace within the Faculty with increasing efforts being channelled towards proposal to attract research funding and dissemination of findings through the establishment of online journals.

In the 2010/2011 academic year, a delegation from the Faculty of Social Sciences visited the Clarence Fitzroy Bryant College in St. Kitts (September 2010 & April 2011); the St. Vincent and the Grenadines Community College (October 2010 & March 2011); and the Sir Arthur Lewis Community College (November 2010 & January 2011) to conduct the usual semester monitoring visits with staff, students and administrators involved in the delivery of the franchised degree programmes offered at these Colleges on behalf of the Faculty.

In support of the Open Campus, the Faculty of Social Sciences collaborated with the Open Campus, St Kitts-Nevis to offer two of its Summer programmes in Economics via live streaming of lectures. This pilot was successful and will be expanded in the Summer Semester 2012. The Department of Economics also provided assistance to the St. Vincent and the Grenadines Community College in offering Remedial Mathematics to their students. The Department of Management Studies continued to assist in the administration and delivery of the BSc Management Studies distance education programme and is also collaborating in the development and delivery of the BSc Accounting Special which will be offered to Open Campus students soon.

Additionally, eight regional students enrolled in the MSc Management Studies and MSc Tourism Development and Management programmes in 2010/2011.

In 2010/2011, the Faculty continued to maintain links with business, industry and public sector entities. The 4th Biennial conference titled “*Business, Banking and Finance*”, was held in June, 2011, co-hosted by the Department of Management Studies, the Sir Arthur Lewis Institute of Social and Economic Studies and the Caribbean Centre for Money and Finance and the Department of Economics hosted the annual Conference on the Economy in October, 2010. A Stakeholder’s Forum and a Business Forum formed part of the Conference Agenda.

Academic staff in the Faculty of Social Sciences continued to make invaluable contributions to national development by participating in Government Task Forces, Committees, Commissions and Regulatory Bodies. Professor Dennis Pantin (posthumously) of the Department of Economics and Dr. Nasser Mustapha of the Department of Behavioural Sciences received National Awards at the Independence Day Awards Ceremony in Trinidad in August 2010. Dr. Indira Rampersad, Lecturer in the Department of Behavioural Sciences, was appointed to the Equal Opportunity Commission. Dr. Roger Hosein was appointed a Director on the Board of the Central Bank of Trinidad and Tobago, Mr. Maukesh Basdeo was appointed a Director of the Caribbean New Media Group, Dr. Anne-Marie Mohammed was appointed the Chairperson of the Regulated Industries Commission, Dr. Sandra Sookram was appointed Deputy Chairperson of the North Central Regional Health Authority, Dr. Sonja Teelucksingh was appointed a member of the Economic Development Board, and Mr. Maukesh Basdeo was appointed a member of the Ministry of Local Government Task Force on Local Government Reform.

In the last year of the UWI Strategic Plan period, the Faculty of Social Sciences looks forward to the implementation of several initiatives including the entry of students in August and January of each academic year on a pilot basis beginning with January 2012, the introduction of the Minor in Anthropology, the third Faculty of Social Sciences Cross-campus conference from January 16-18, 2012, a conference on the 50th anniversary of independence from April 25-27, 2012 co-hosted by the Faculty of Social Sciences and SALISES, and a conference to be hosted by the Faculty of Social Sciences entitled “Bridging the M-Gap : a closer look at workplace attitudes and behaviours of Generation Next” from March 21-22, 2012.

**Dr. Hamid Ghany**  
*Dean*  
*Faculty of Social Sciences*

## **ENROLLMENT**

In 2010/2011, total enrolment in the Faculty increased by 4%. 5845 on-campus students were registered, including some 1,700 registered in the Evening University, an increase of 58% over the 2009/2010 enrollment. Enrolment in research degrees continued to increase with 103 students registered in MPhil programmes and 93 in PhD programmes in the Faculty.

Acceptance into the Faculty remains highly competitive which contributes to the calibre of student ultimately admitted. We also see this as testimony to the high regard in which our programmes are held. For instance, the MSc in Management Studies attracted students on OAS scholarships from Suriname, Grenada, and Jamaica and the cohort currently includes students from the OECS member countries, Guyana, Barbados, and as far as Nigeria.

## STRATEGY APPRAISAL

### Teaching and Learning

As the student population in the Faculty of Social Sciences continued to expand in 2010-2011, there was a corresponding demand from the public and private sector for new courses and programmes. The Department of Management Studies, with support from the Trinidad and Tobago Insurance Institute introduced a BSc Special degree in Insurance and Risk Management. A minor in Environmental Economics was also introduced by the Department of Economics in 2010-2011 in its efforts to enhance the course offerings of the Department. In 2010-2011, the Department of Management Studies amended the Minors in Finance and Accounting and the BSc Management Studies in order to provide students with the necessary tools, skills and knowledge to function efficiently in the financial services sector. Among the courses introduced this year are new undergraduate courses in Economics of Disaster and Climate Change, and Anthropology. The Faculty also introduced a new postgraduate elective entitled “Integrative Marketing Communications” which will include topics such as social media and ethics.

Revisions to the curriculum continued during the review period. The Department of Economics restructured two courses and made changes in the assessment methods of seven undergraduate courses. Team teaching was also introduced in several courses in the Departments of Behavioural Sciences and Economics. The Mathematics Proficiency Test (MPT) was introduced to assess students who must read for the course ECON 1003 - Introduction to Mathematics. In addition to the BSc. Economics (major and special) it is offered to all student perusing the BSc. Management (major and special), BSc. Banking and Finance (special); BSc. Insurance Risk Management (special); BSc. Sports Management (major).

Not all learning can or should take place within a classroom and internships continue to provide important opportunities for our students and help develop the attributes of the distinctive UWI graduate. In the Department of Economics, two postgraduate students benefitted from internships at the Central Bank in Barbados and the Caribbean Centre for Money and Finance (CCMF) at the St. Augustine Campus. In the Department of Management Studies, 12 students from the BSc International Tourism Management programme and fourteen students from the MSc Aviation Management programme participated in internships with local, regional and international agencies. Social Work students also had the opportunity to practice in the field with local and regional agencies and with international universities – Florida State University; KwaZulu-Natal in Durban, South Africa; Barry University in Florida; and, the University of Toronto in Canada.

Meanwhile, more than 40 members of full-time and part-time academic staff, and teaching and research assistants participated in courses offered by the Unit this year. In the Department of Behavioural Sciences in particular, five full-time academic staff enrolled in certified training in teaching - including four new members of staff, and two full-time academic staff completed certified training in teaching. Four part-time staff in the Department completed programmes focussing on teaching and learning methodology.

In order to improve student-centredness, the Faculty of Social Sciences’ Staff/Student Liaison Committee continues to meet each semester. This provides a forum for students to meet with staff to discuss their concerns. The Department of Behavioural Sciences also established focus groups with students, used myeLearning to disseminate articles to students, and introduced a new help-desk in the Department as an academic advisory services tool.



The Faculty made significant progress in enhancing technology for use by staff and students in the classroom. The renovations to Room 103 on the Ground Floor of the Social Sciences/Humanities Building are now complete and this classroom has been converted to a 'Smart Classroom' as part of a pilot project to convert the remaining classrooms - Rooms 100, 101, 102 and 107- into 'Smart Classrooms' for the next generation of Social Sciences' students. The projected completion date of this renovation is the end of the Strategic Plan period in July 2012. At the same time the Faculty continues to promote the use of technology for the wider and more efficient delivery of teaching. The Department of Economics conducted a review of the MSc in Economics programme and now 50% of courses in this programme were delivered using dual mode delivery.

### *Management Studies*

The expanded use of **E-Tutorials** which have enabled us to overcome, to a significant extent, the space constraints now confronting the Faculty with respect to the holding of tutorials. It has also enabled us to utilise persons residing abroad in conducting tutorials. The use of **blended teaching** methodology in the delivery of several courses which has met with favourable student response.

The department strengthened the **internship modules** in our Tourism and Aviation Management programmes. In both cases, the internship included international attachment, which in the case of the Aviation programme, was undertaken at Westchester County airport in the USA; and, in the case of the Tourism programme included attachment at hotels throughout the Caribbean including Turks and Caicos Island and US Virgin Islands. Students in our Tourism programmes also participated in an **educational tour** to Cuba (this was a one-week visit that was funded in the main by the Department and the Faculty of Social Sciences).

A Memorandum of Understanding (MOU) was entered into between the Department and the **Certified Management Accountant Society (CMA)** of Nova Scotia, Canada. The aim of this MOU is the strengthening of accounting education in Trinidad and Tobago through the provision of teaching and other resource material as well as funding from the CMA. The programme covers UWI students as well as non-UWI students enrolled in CMA programmes in Trinidad and the Eastern Caribbean.

As recommended by the last Departmental Quality Assurance Review team, an Advisory Board comprising leading members of the business community and relevant professional bodies in Trinidad and Tobago is to be established. The terms of reference for this Committee was developed and was recently approved by the Campus Academic Board.

During the last academic year, the Department also continued to assist in the administration and delivery of the BSc Management Studies and the BSc Accounting programmes offered through the **Open Campus** in which hundreds of students are enrolled.

### **Graduate Studies**

In January 2011, the Institute of Criminal Justice and Security located in the Office of the Vice Chancellor and the Faculty of Social Sciences at St. Augustine jointly hosted a successful cross-disciplinary conference exclusively for MPhil and PhD students across the UWI system who were engaged in research on crime-related topics in all Faculties. The conference was used to showcase the research that was being done across the UWI system in all disciplines on crime-related matters. A follow-up conference for these students is planned for January 2012 at the Mona Campus.



## Research and Innovation

The Department of Economics formally established the Trade and Economic Development Unit in September 2010 as a research cluster. The Faculty also conducted a Proposal Writing workshop in November, 2010 for members of academic staff and research students in the Faculty as part of its research capacity building drive in the Faculty. The Faculty plans to conduct a Proposal Writing workshop in each academic year.

### *Behavioural Studies*

In March 2011, the Department of Behavioural Sciences introduced an online, peer-reviewed, open-access *Journal of Behavioural Sciences*. The inaugural issue of the journal was on the theme, Diversity in Governance. The journal will be published bi-annually and will serve as a forum for publication by young researchers, including graduate students, in the Department. The goal is to publish innovative research on significant academic and societal issues related to the behavioural sciences.

### *Economics*

The Department's research agenda includes work in areas such as Mathematical Finance, Climate change and small countries; Managing adaptation to environmental change in Coastal Communities in the Caribbean (ICURA); The Real Estate Market in Trinidad and Tobago; Costing of Health Services and Programmes in Selected Caribbean Countries; Economics of Regulations – Regulatory Reform, Independence of Regulators; Labour Markets Structure in the Caribbean; The importance of the Informal Sector; Fiscal policy, aggregate output and inflation in the Caribbean.

Research being undertaken by the **Trade and Economic Development Unit** is primarily related to a Baseline study of Southwest Tobago; Revenue Management; Review of MIPED Conference; Baseline study in the Southwest Peninsula; Localized Economic Development in the Southwest peninsula; and Microeconomic Aspects of the Labour Market in T&T.

## National Engagement

### *Management Studies*

Service to the wider national and regional community was achieved through membership on Boards of Directors and the provision of advisory services to institutions such as the **CXC Examination Board**, the **Institute of Banking and Finance of Trinidad and Tobago (IBAF)**, the **Ministry of Tourism of Trinidad and Tobago**, the **Ministry of Labour**, the **Trinidad and Tobago Credit Union Stabilisation Fund**, the **Caribbean Court of Justice**, the **Student Revolving Loan Fund** of the Government of Trinidad and Tobago, the **Arthur Lok Jack Graduate School of Business** and the **Institute of Insurance**.

## Service to UWI 12+1 Countries and Other Underserved Communities

The Faculty continues to support the Sir Arthur Community College (SALCC) in St. Lucia, the St Vincent and the Grenadines Community College – (SVGCC), and the Clarence Fitzroy Bryant College (CFBC) in St. Kitts with delivery of Year I and II Economics courses. This year we went further by undertaking a pilot program during Summer 2011 to teach ECON 1001 and ECON 1002 via video conferencing to the CFBC in St Kitts.

## OUTREACH

Together with First Caribbean International Bank (FCIB) the Faculty hosted the presentation of findings coming out of the “UWI/First Caribbean International Bank: Partnering with the Private Sector” in September, 2010. The event helped to publicise the research work of awardees under the Memorandum of Understanding between the University of the West Indies and the First Caribbean International Bank. The University-wide project comprised four research projects from the St. Augustine and Cave Hill campuses. The St. Augustine Campus projects were titled “*CARICOM Cross-Border Equity Flows*” and “*Oil Boom, Rebuilding a Culture of*

*Entrepreneurship and the Need for Micro-financing in a Petroleum Rich Sub-economy*". The latter argued in favour of building a culture of entrepreneurship as a strategy for rebuilding the sub-economies of Mayaro and Point Fortin through entrepreneurship based on micro-financing provided by foreign multinational energy companies based there.

The Social Work Unit collaborated with the Centre for Applied Childhood Studies at The University of Huddersfield, United Kingdom and the group Stop It Now from the United States, to deliver a programme of advanced professional training on the prevention of child sexual abuse to local and international practitioners. The programme was conducted at the St. Augustine Campus. Its objectives were to contribute to the continued professional development of practitioners in preventing child sexual abuse and responding to its effects, to share knowledge about empowerment-based models of child sexual abuse protection and prevention, and to explore the suitability and applicability of these models for Caribbean contexts.

The Faculty its annual Post Budget Forum in September and the annual Conference on the Economy (COTE) in October and there were seminars debating matters such as "**CLICO Measures in Budget 2011**"; "Is Caribbean Aviation in turmoil given the entry of lean operators like **REDjet**" and on "**Bullying, Domestic Violence and Rape**". The Sustainable Economic Development Unit (SEDU) hosted the launch of the report on *Governance and Sustainable Development in the Context of Trinidad and Tobago* that included a seminar on the same topic.

## REVENUE GENERATION

In an effort to generate additional funding, the Faculty introduced four new training courses in 2010-2011 - Introduction to Occupational Health and Safety, Supervisors' Safety Management Programme, Effective Security Management and the Five Cs of Success in the Workplace - to UWI staff and the general public. The Faculty also implemented some cost-cutting measures through the rental of the Computer Laboratory facilities during down time, the reduction in the rental of multi-media equipment by purchasing laptops and projectors, the use of Student Assistants for Office support, and the purchase of consumables in bulk.

The Faculty of Social Sciences' Evening of Excellence, to honour its First Class Honours graduates and winners of Departmental, Faculty and University prizes in 2010, was held on October 26, 2010. The feature speaker was Mr. Ian Chinapoo, Managing Director, Trinidad and Investment banking, FirstCaribbean International Bank and past graduate in Management Studies from the Faculty of Social Sciences at St. Augustine.

## PROJECTED ACTIVITIES

The Faculty will be introducing new programmes such as a Post Graduate Diploma Economics to provide Economics graduates with the skills to undertake modern economic analysis and to prepare those who intend to pursue a Master's programme in Economics or a related programme. A new MSc in Financial Economics is a response to an expressed need for analytically trained, industry focused, financial economists with an in-depth understanding of the nature of the dynamic financial sector. The courses in this programme will allow students to develop more sophisticated solutions to business and financial management problems.

Upcoming research will include:

*Sustainable Economic Development Unit (SEDU)*

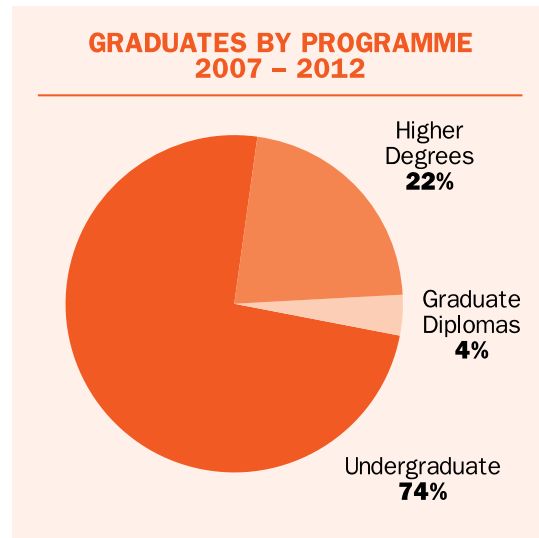
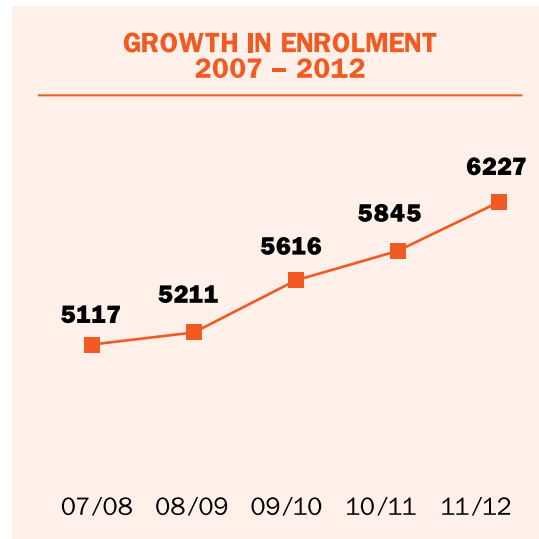
Econologism: S.I.D.S Pilot Case Studies; Policy Instruments; Economic Valuation; Vulnerability Indices; Social Ecology; Natural Resources Management; Natural Disasters and Climate Change; Trade and the Environment; Poverty and Sustainable Livelihoods; and Sustainable Tourism

*Trade and Economic Development Unit (TEDU)*

Baseline of Southwest Tobago; Revenue Management Conference; Baseline in Southwest Peninsula; Localized Economic Development in Southwest peninsula; Microeconomic Aspects of the Labour Market in T&T;

*Labour Market and Poverty Studies Unit*

A comprehensive study on the response to poverty in the Caribbean looking at long standing efforts to reduce poverty levels in the region and the reasons why the data have not pointed to a definite improvement in the poverty situation in the region; collaboration with the Poverty Reduction Unit of the Ministry of Planning; collaboration with the TT Ministry of Planning to carry out a Survey of Living Conditions (SLC) early in 2012.



# CENTRES & INSTITUTES

## ANSA McAI PSYCHOLOGICAL RESEARCH CENTRE

In the 2010/2011 academic year the ANSA McAL Psychological Research Centre undertook the collection of data for a major project on Gambling which was initiated in 2009/2010 in Trinidad and Tobago. The data set is being analysed. The project was commissioned by the Ministry of the People and Social Development, Government of the Republic of Trinidad and Tobago and it is the first national study of its kind in Trinidad. There were a number of publications including a book published by renowned Blackwell Press, Oxford. A number of research projects were completed in the areas of copy cat behaviour of adolescents, fear of crime, and emotion modulation on psychological reactance. All these projects have implications for policy direction. The Centre continued its international presences by maintaining collaborative research linkages with a number of international universities, conference presentations and joint research fund seeking.

### Research

#### *Copy Cat behaviour of Adolescents – Comparison among Low and High Risk Groups*

The study assesses the cognitive processing of information, levels of empathy and copycat behaviour among juveniles in high and low risk institutions. The exploration of the mediating effects of the media in determining behaviour has been limited in showing causation. Where findings have been suggestive there are no conclusive results to demonstrate causation. More so, the effects of the media in the causation of criminal behaviour and copycat behaviour has had limited research internationally, and literally no scientific research in Trinidad.

Contemporary forms of myth as displayed by the media (television, movies, etc.) are cognitively internalised and can be persuasive to the adolescent, especially if there are high vulnerability factors, making susceptibility to influence greater. However, the extent to which information is processed in detail (elaborate or heuristic) mediates vulnerability impacting on susceptibility. Individuals can differ in how carefully and extensively they think about a particular subject—in this case, a persuasive communication (e.g., images presented in the media) or attitude object (Petty & Cacioppo, 1998). That is, in any given context the amount of elaboration, or *thinking about the relevant message or issue*, can vary continuously from very low to very high, and is determined by a combination of individual differences and situational factors.

Low cognitive assessment of issues makes us easily influenced by simple cues, low credible sources and few arguments. (Petty & Cacioppo, 1984). However, if the amount of thinking is high, then attitudes are determined less by cues and more by an assessment of the merits of the position. The kind of information processing style adopted impacts on propensity to be influenced by persuasive messages. The current study utilises a sample of 373 respondents across three institutions (a detention centre, high risk school and low risk school). The following is a brief of some initial findings.

#### *The Impact of Time Perspective on Fear of Crime*

The area of time perspective examines the often unconscious process undertaken by individuals to organise their personal and social experiences into temporal categories. The ways in which individuals interpret past life events and construct anticipated experiences in the future is therefore said to shape the way in which they respond – cognitively, emotionally,

and behaviourally – to present circumstances. With this view, the study seeks to examine temporal orientation and its impact on fear of crime. In particular, the study is aimed at constructing a conceptual model of fear of crime, with time orientations (past, present, and future), general fears (pragmatic and abstract), as well as perceived risk of victimisation as possible causal variables.

A sample of 357 was utilised. With regards to the temporal profiles among respondents, preliminary results of a cluster analysis revealed that individuals who maintain a balanced time orientation (an adaptive combination of positive and negative time perspectives) had significantly lower levels of fear of crime than respondents who showed a more negative temporal profile. The model tested showed that pragmatic fear has a strong direct relationship on fear of crime more so than perceived risk of victimisation which the literature has consistently identify as the best predictor of fear of crime. Pragmatic fear has a positive significant relationship with risk of victimisation and abstract fear. Abstract fear did not have a significant direct effect on fear of crime. However, a number significant direct relationship was found within the model. Time perspectives (past negative and future orientations) had a statistically significant direct effect on perceived victimisation, pragmatic fear (past fatalistic orientation) and abstract fear (past negative orientation). Past positive time perspective orientation has a significant positive direct relationship with life satisfaction and past negative orientation has a negative relationship with life satisfaction.

#### *The Predictors of Fear of Crime: Negative Life Fear Events versus Perceived Risk of Victimisation*

Much of the literature on fear of crime has focused on the role of risk perceptions in understanding fear of crime. Little consideration, however, has been given to psychological factors that are not directly evolved from crime, but that can impact the levels of fear of crime. This study introduces general fear - the fear of negative life events - into the fear of crime thesis. Global fear responses can be seen as playing significant role in influencing the levels of

fear of crime, as individuals may, in their response, be more readily influenced by proximal emotional experiences than rational assessments of risk. To this end, the study also aims to examine the relative strength of fear and risk variables in predicting fear of crime. A proportional random sample of 1197 Trinidadian respondents was used for this study.

#### *The Impact of Emotion Modulation on Psychological Reactance*

Psychological reactance refers to the motivational response of an individual to actual or anticipated threats to freedom. It is based on the premise that individuals are motivated to regain a sense of freedom in response to a direct or implied threat by another to remove or restrict their engagement in free behaviours or decision making. The reactance response can be viewed as a state of high arousal, and as such, is presumed to intensify or attenuate in light of the emotional context facing an individual. The captioned study examines the degree to which the elicitation of specific emotion states can impact the strength of individuals' reactance response to perceived threats to freedom. In particular, the study focuses on calm and anger inductions, as these emotion states are of disparate valence (positive versus negative) and levels of arousal (low versus high).

Baseline measures (T1) of reactance proneness as well as a personality profile would be attained from participants prior to emotion induction. The baseline protocol would also entail the induction of a state of calm across participants. For the test (T2), participants would be exposed to either anger or calm emotion induction via recall (thinking/imagining a situation in which the targeted emotion has been/can be experienced). Following this, psychological reactance would be induced. Pilot testing will be done to test the efficacy of reactance induction via recall (given specific antecedents to reactance, participants would be asked to think about a situation in the past in which they experienced a threat to their freedom/ imposition of another's will) as well as through the use of targeted vignettes.

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The proposed study would allow for both within and between group comparisons regarding the impact of these induced emotion states on the levels of reactance and other related variables (e.g. autonomy). It is hypothesised that measurable differences across variables would be observed for persons who experienced anger induction (as compared to their baseline measure), relative to those in the calm induction condition. The relation of personality and reactance would also be examined. Preliminary research has already been undertaken.

## Trinidad and Tobago Guardian Survey

The Psychological Research Centre has maintained its relationship with the Trinidad Guardian in conducting of National Surveys on current issues. Over the last academic year the Centre undertook a number of surveys which informed the public and decision makers on the public's attitude, feelings and behaviour on a number of controversial and important issues.

## Graduate Studies

### PhD Students

*Jannel Philip*

*“Healthcare Students’ willingness to interact with patients living with HIV/AIDS (PLHIV): The Influence of attributions, emotions, prejudice and perception of occupational risk”.*

The objective of the research is to understand the impact of some cognitive and affective variables on health care students’ willingness to care and interact with PLHIV. The thesis examines health-care students’ willingness to interact with patients living with HIV. Adapting Wiener’s (1986) attribution-emotion model it highlights the effect of patients’ HIV onset-controllability and emotions of health-care students on their reactions towards PLHIV. It discusses the implications of these effects and makes suggestions toward improving patient-provider relationship. Care and treatment of HIV patients are critical factors in dealing with the HIV epidemic. Factors which adversely affect care of patients living with HIV/AIDS (PLWHA) have serious implications for the

epidemic. Cognitive (prejudicial evaluation, perception of occupational risk, attributions of control, responsibility and blame) and emotional (fear, anger, empathy and disgust) factors affect delivery of health-care to PLHIV.

The findings of this research revealed that HIV patients who are perceived to have caused their illness are attributed greater control, responsibility and blame for contracting HIV. Greater prejudicial evaluation, more negative emotions like anger and disgust are also expressed towards such patients. Empathy on the other hand is elicited when the patient is perceived as not responsible for their illness. HIV is regarded as a behaviourally caused disease and promiscuous sexual behaviour (regardless of the patients’ sexual orientation) is perceived as the main cause of contracting HIV. Irresponsible sexual behaviour brings much disapproval even from health-care students. The findings of this study have explicitly demonstrated that emotions are integral in forming attitudes and influencing behaviours of health-care students toward patients living with HIV/AIDS. Emotions, particularly empathy are essential in enhancing the patient-provider relationship and should be emphasised in regional training of health-care students.

*Rosanna Yearwood*

*Stigma towards PLHIV and intentions to be HIV tested: Examining the impact of fear of HIV/AIDS and perception of risk.*

The sustained impact of stigma on the HIV/AIDS epidemic erodes prevention efforts. Stigma discourages persons from being treated and tested. Although ubiquitous, the expression of HIV stigma varies from place to place. Informed by attitude theories the study investigated how people in a Caribbean country conceptualised HIV and perceived persons living with HIV/AIDS (PLHIV). This study examined the impact of fear and risk perception on stigma towards PLHIV and testing intentions. A survey methodology sampled 365 participants from a community in Trinidad and



consisted 50% males and 50% females. Ages ranged from 18 to 85 years. Predictive models and mediation were tested with multiple regressions and Sobel test. Fear, risk, and gender significantly predicted stigma towards PLHIV. Fear, risk, stigma, and age significantly predicted HIV testing intentions. Risk mediated fear and stigma. Fear, mediated age and HIV testing intentions. Results indicated that fear, risk perception and gender are critical to understanding and predicting stigma towards PLHIV. Additionally, age, fear, risk perception and stigma predicted testing intentions. The mediational role of risk signalled that misperceptions about contagion influence stigma towards PLHIV. These findings underscore that stigma and fear reduction interventions targeted to specific age and gender groups, and which emphasise how HIV is *not* transmitted, are critical to the success of prevention and control efforts in the Caribbean region's response to the HIV/AIDS epidemic.

#### **MPhil Students**

*Victor Granderson*

*Attribution of blame and derogation to the victims of crime: the role of just world beliefs, cognitive dissonance, information-ambiguity and empathy.*

The victims of crime are often "re-victimised" as their behavior and/ or character are perceived as facilitating or causing their victimisation. The most prominent theory that addresses this phenomenon is the Belief in a Just World (BJW). The core argument of the BJW is that people need to maintain a view of the world being a fair and just place where persons get what they deserve and deserve what they get. Innocent victimisation threatens this belief, thereby compelling the observer to re-evaluate the victim's status from innocent to non-innocent (deserving of victimisation). However, the role of information-ambiguity and empathy in the resolution of threats to the BJW has been largely ignored. This is of particular importance where the victims of crime are concerned since information (especially information regarding the perpetrator) is often ambiguous. Exposure to unambiguous information might facilitate

discounting of the victim's role in his/ her victimisation. Furthermore unambiguous information might facilitate empathy and defensive attributions as the complexity of criminal actions are highlighted. The combined effect of discounting and empathy could result in lower levels of blame and derogation directed toward the victims of crime.

*Dionne Brewster*

*Social cognition, affect and personality in adolescent risk decision making: Implications for juvenile delinquency.*

In Trinidad and Tobago there has been an upsurge of crime with a simultaneous increase in criminal behaviour among adolescents. Engaging in risk taking and delinquent behaviours can have severe consequences to adolescent development as it can hinder educational attainment, disrupt family life and limit their opportunities for development. Existing research have identified social psychological variables such as family breakdown, peer pressure, emotions and personality as predictors of these deviant behaviours. However, many of these studies focus on one or a subset of these variables at a time. The purpose of this research is to synthesise the existing literature social psychological predictors of on juvenile delinquency and risk taking into a integrative model that can be tested to provide a greater understanding of these factors put adolescents at risk for these behaviours.

#### **New Programme**

The objective of this Master's programme is to provide students with an understanding of applied psychology and to equip them with the necessary knowledge and skills to deal with practical, real world problems. It will allow them to engage their understanding productively in different domains where the study of psychology is relevant. The programme is designed to develop competencies in research, assessment and evaluation skills at a graduate level. There is a heavy emphasis on research with some opportunities for experimental and practical elements. Moreover, students will be prepared

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to undertake further postgraduate studies in psychology or in a related field. Focus will be placed on Social Psychology, Developmental Psychology, Industrial/Organisational Psychology, Cognitive Psychology, Health Psychology and Community Psychology. The overall purpose of this programme is to produce students who are adept in applied psychological principles. The applications of psychology are seemingly limitless, with these psychology experts finding work in areas such as health, law, business, industry, government, sports, and education.

The programme is being evaluated by the University's relevant boards and is due to come on stream from the 2012/2013 academic year. This programme is to be offered through the Department of Behavioural Sciences UWI St. Augustine Main Campus.

### International Collaboration

The ANSA McAL Psychological Research Centre recognises the importance of international collaboration and deepening of relationships with foreign colleagues. This year the Centre collaborated with colleagues at University of Central Florida, Hunter College, CUNY, New York, University of Florida, University of Nis, Serbia and Middlesex University, University College London. The Centre also helped facilitate a visit of students from Syracuse University to the St. Augustine Campus.

### Internal Collaboration

During the academic year the Centre has also collaborated with the Faculty of Medical Sciences on research in the area of non-communicable diseases. The Centre has also collaborated with the Psychology Unit at the Cave Hill Campus on setting up a cross-cultural study on fear of criminal victimisation.

### Distinguished Visitors

#### Prof. Jaipaul Roopnarine

Director, Jack Reilly Institute of Early Childhood and Provider Education. College of Human Ecology, University of Syracuse, United States of America

## CARIBBEAN CENTRE FOR MONEY & FINANCE (CCMF)

Following the resignation of Dr. Derick Boyd in March 2011, Mr. Dave Seerattan was appointed Officer-in-Charge of the CCMF. Mr. Seerattan is a member of the project team for the IADB project on *Caribbean Financial Sector Risk Assessment Project / Proposed Architecture for Regional Financial Stability* and was a member of the planning and academic committees of the 4<sup>th</sup> Biennial International Conference on Business, Banking and Finance held in June, 2011. He has also supervised Marlon Stewart's MSc Financial and Business Economics Thesis entitled *Capital Structure and Firm Performance in the Small Open Economy of Jamaica*, submitted in October 2010.

### Service to UWI 12+1 Countries and Other Underserved Communities

#### Internship Program

The CCMF internship programme continues to enjoy the sponsorship of the Caribbean Regional Technical Assistance Centre (CARTAC) which for the first time sponsored three interns – one from each UWI campus - instead of the customary two. During the months of June and July, under the supervision of the research fellows, the interns worked individually on topics that were based on the Centre's work programme and the skill set of the intern. At the end of the period they presented their research findings. The presentations were very well attended by members of the local financial community as well as the university community. The titles of the papers presented are:

- *Credit Demand: The Impact of Low Interest Rate Expectation in the Caribbean* (Akeem Rahaman)

- *How Cutbacks in Fiscal Capital Expenditure Affect Economic Growth* (Stevonne Nugent )
- *Liquidity in the Banking Sector: Contributing Factors and Policy Responses* (Wayne Elliot)

## Departmental Outreach

The CCMF continues to perform an important outreach function by making available to the public its research findings through various publications of the Centre. Many of these such as *The Adlith Brown Memorial Lecture Series* and *The Journal of Business, Finance and Economics in Emerging Economies*, have been available online at the centre's website for some time. However, in light of the myriad requests for some of the Centre's older material, the Centre has moved to digitise and make available online electronic copies of the Centre's entire catalogue of monographs. These monographs are all now available online.

### *The Journal of Business, Finance and Economics in Emerging Economies (JBFEEE)*

Volume 6 No. 1 of the Journal of Business, Finance and Economics in Emerging Economies was published with six papers, most of which had been presented at the Annual Monetary Studies Conference in 2010.

### *The Financial Evolution of the Caribbean Community 2<sup>nd</sup> Edition*

This is a long awaited publication and, as with the first edition, we expect robust demand for this volume since it represents the most definitive reference text for information on financial systems in the Caribbean. All chapters from the contributing central banks have been received and the final editorial changes made by the editor, Prof. Ramesh Ramsaran. This volume is expected to go to print shortly.

### *Price Formation and Inflation Dynamics in the Caribbean*

This monograph is completed and awaiting an ISBN number before it is published online at [www.ccmfuwi.org](http://www.ccmfuwi.org).

### *The Newsletter*

This monthly feature of the CCMF continues to be a good source of local and regional financial information as well as a means of providing information on the Centre's research and other activities. Traditionally, the lead articles are penned by the Centre's research staff, but recently we have exercised the option of inviting external writers to make submissions for the lead article. Our first such submission was by Professor Surendra Arjoon (Head of the Department for Management Studies) whose article was titled *Resilience and Stability: the Case for Islamic Banking and Finance*, published in the August 2011 edition of the Newsletter (Vol.4 No. 8). All issues of the newsletter are available online at [www.ccmfuwi.org](http://www.ccmfuwi.org).

### *Conferences and Seminars*

#### **The 4th Biennial International**

##### **Business Banking Finance Conference**

This Conference was jointly hosted by the Department of Management Studies, the Sir Arthur Lewis Institute of Social and Economic Studies and the CCMF. It was held on June 22-24, 2011 at the Hilton Trinidad & Conference Centre, Port of Spain on the theme *Restoring Business Confidence and Investments in the Caribbean*. A total of 148 participants attended.

#### **Annual Monetary Studies Conference**

The CCMF held its 42nd Annual Monetary Studies Conference hosted by the Central Bank of Trinidad and Tobago at the Bank's conference facilities on November 9-12, 2010. The conference was held in tribute to Professor C. Y. Thomas, a luminary of regional economic thought, who has had a profound impact on the work of many young economists in the region. The theme of the conference was *Financial Stability, Crisis Preparedness and Risk Management in the Caribbean*. Forty two papers were presented on various topics including exchange rates and foreign policy, financial risk, various issues associated with monetary policy, fiscal policy, cyclicity of credit and financial instruments, financial market development, efficiency of banking, remittances,

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foreign direct investment and tourism flows. The conference drew a wide range of presenters from regional central banks, local and international academia, the IMF and the US Federal Reserve. Papers presented at the Conference can be viewed on CCMF's website at <http://www.ccmfuwi.org/>.

## *Website Upgrade and Enhancement*

The CCMF website continues to be a work in progress as we strive to provide information that is topical and current, and to effectively respond to the needs of our stakeholders. Major upgrades to the website include a new automated RSS news feed aggregator which hourly grabs business news from online regional news sources; loading up the entire catalogue of the Centre's monographs - In the past only hard copies were available but now users can download an entire book in pdf format free of charge. This will drastically increase the availability of our publications and preserve the Centre's monograph library for future generations, in a digital format.

Regular web content updates such as the monthly newsletters, the *Journal of Business, Finance and Economics in Emerging Economies*, chapters from *The Financial Evolution of the Caribbean Community monograph*, *Caribbean Economic Performance Reports*, reports on the Caribbean Economy, statistical data, charts and general information updates.

## **Projected Activities**

### *Caribbean Financial Sector Risk Assessment Project/ Proposed Architecture for Regional Financial Stability*

This project is funded by the Inter-American Development Bank (IDB) and is an essential element of the overall architecture which CARICOM is putting together to enhance regional financial soundness. The implementation of this project was delayed primarily due to the need to clearly define the remit of the lead consultant and the collaborative framework for the implementation of the project. As a result, on the recommendation of

the sub-committee appointed by the Board of the CCMF, the Regional Financial Stability Coordination Council (RFSCC) was formed with the responsibility for technical oversight of the project (to deal with the concerns about the specific collaborative framework).

### *Annual Monetary Studies Conference*

The 43<sup>rd</sup> Annual Monetary Studies conference was scheduled to take place in November, 2011, co-hosted by the Central Bank of Barbados on the theme *Financial Architecture and Economic Prospects: Beyond the Crisis in the Caribbean*. The 26th Adlith Brown Memorial Lecture will be delivered by Mr. Winston Cox, CGM a former Governor of the Central Bank of Barbados, focused on the theme *The International Financial Architecture and its Application in the Caribbean*.

### *The Caribbean Business Executive Seminar*

Preparations have begun for the CBES 2012. The proposed theme is *The Future of the Pensions Industry in the Caribbean* with the following broad sub-themes:

- The Reform of Pension Systems in the Caribbean
- Strengthening the Governance of Funded Pension Plans in the Caribbean
- The Adequacy of Current Private Pension Plans for Retirement
- Restoring Confidence in the Pension Industry in the Caribbean

The seminar is expected to be held on 4 May, 2012 at the Hyatt Regency Hotel, Port of Spain, Trinidad and Tobago.

## CENTRE FOR HEALTH ECONOMICS (HEU)

The HEU, Centre for Health Economics began the academic year 2010/2011 dedicated to its mission of *Making a Difference*. During the academic year under review, the Centre continued steadfastly with its research and training agenda. In spite of some challenges, the Centre's focussed approach to accomplishing its annual work programme culminated with the publication of research papers, completion of significant other pieces of research, production of several technical reports, development and delivery of training and internship programmes, and participation at a number of national, regional and international conferences. The HEU's contributions to national and regional development were evident by its key advisory roles and collaborations with various Governments and agencies in Trinidad and Tobago and throughout the wider Caribbean.

Two of the Centre's major projects were as follows:

*Knowledge, Attitudes, Beliefs and Practices (KABP) Surveys in Four Organisation of Eastern Caribbean States (OECs) Member Countries - Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis.* This study was commissioned by the OECs and analysed the Knowledge, Attitudes, Beliefs and Practices of these four countries with respect to HIV/AIDS.

*HIV/AIDS and Human Development in the Caribbean* study was commissioned by the United Nations Development Programme (UNDP). It is aimed at improving the effectiveness of the response to HIV/AIDS through the quality of the response to the epidemic, as well as the targeting of programmes implemented by shifting to a much higher level than that which currently prevails via research, training and technical policy support throughout different countries within the region. The project was thereafter modified to examine

the nexus between Tourism and HIV in the English Speaking Caribbean Countries and produced a matrix on the mainstreaming of HIV as an integral function of National Tourism Plans in those CARICOM countries.

The Centre also began a major study on *The Situation and Response Analysis of Children and Women in Trinidad and Tobago (SITAN)*. The study was commissioned by the United Nations Children's Fund (UNICEF) and sought to identify—to the greatest extent possible—the progress made by Trinidad and Tobago in the legal and policy framework of the Millennium Development Goals (MDGs), the Convention on the Rights of the Child (CRC) and the convention on the Elimination of all forms of Discrimination Against Women (CEDAW).

The Centre's overall activities included the continuation and further development of the Graduate Seminar Series in Health Economics, maintenance of its annual Internship Programme, and some small strides were made at Curricula Development. Academic staff at the Centre continued in their efforts to support the teaching programmes in the Department of Economics and the Faculty of Medical Sciences. In addition, a member of staff provided academic support including curriculum guidance on Health Economics to the Master of Health Administrative Degree programme at the University of Technology in Jamaica. This is a new post graduate course.

Under the SITAN study, the Centre hosted two key Stakeholders' sessions in Trinidad, as well as in Tobago. These sessions brought together representatives from a broad spectrum of the society whose voices proved to be pertinent and invaluable throughout the development of a study of this type. Most laudable and gratifying were that all of the sessions were conducted by the very young, bright researchers of the Centre who presented, chaired and facilitated the entire effort.



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The HEU Centre also conducted in-country training sessions to Field Teams who conducted surveys under the OECS KABP Study in Antigua and Barbuda, Dominica, Grenada and St. Kitts and Nevis. The aim of this training for intended enumerators was to examine in detail the survey questionnaire, to engage in practice sessions in the conduct of interviews using the questionnaires and accompanying control forms. The HEU's training officers also met with Field Supervisors and Local Field Coordinators in each respective country to review the maps for the selected areas, as well as the field allocation to ensure that there was consistency with the sample selected. The purpose of the survey was to obtain accurate information about people's KABP towards HIV/AIDS in the four selected countries. With such information, the Government of these islands States will be better equipped to monitor and evaluate the national response to the epidemic and, in so doing, improve the effectiveness of planning and allocating resources to address the epidemic.

## Research

### *Major Projects and Technical Reports Completed*

*A Consultancy to Undertake Knowledge, Attitudes, Beliefs and Practices (KABP) Surveys in Four OECS Member States - Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis.*

Contributors: **Karl Theodore, Roger McLean, Althea La Foucade, Christine Laptiste, Kimberly-Ann Gittens-Baynes, Lynette Brown, Charmaine Metivier, Vyjanti Beharry, Jean-Claude Roberts, Tishana Simon, Leena Ramnath and Haleema Ali**

A Project undertaken with the Organisation of the Eastern Caribbean States – HIV/AIDS Project Unit (OECS/HAPU) – July 2011. - Five Technical Reports submitted on Antigua & Barbuda, St. Kitts & Nevis, Dominica, Grenada.

### *HIV/AIDS and Human Development in the Caribbean*

Contributors: **Althea La Foucade, Roger McLean, Kimberly-Ann Gittens-Baynes, Charmaine Metivier, Vyjanti Beharry, Christine Laptiste and Leena Ramnath.**

This project was funded by the UNDP. It was aimed at improving the effectiveness of the response to HIV/AIDS through the quality of the response to the epidemic, as well as the targeting of programmes implemented by shifting to a much higher level than that which currently prevails via research, training and technical policy support throughout different countries within the region—November 2010.

### *Other Technical Reports Completed*

**Trinidad Costing of Health Services Report** (May 2011)

*The Costing of Health Services in Trinidad and Tobago: Inception Report*

Contributors: **Vyjanti Beharry, Althea La Foucade, Christine Laptiste, Patricia Edwards-Wescott, Charmaine Metivier, Tishana Simon, Haleema Ali and Josette McDavid.**

A report submitted to the Ministry of Health under the project entitled, *Provision of Consulting Services to Undertake a Comprehensive Costing of Health Services throughout Health Institutions in Trinidad and Tobago.*

A project undertaken on behalf of the Ministry of Health to provide an estimate of the cost of health services delivered at facilities managed by the various Regional Health Authorities and selected Private Sector Hospitals. This study commenced on February 18<sup>th</sup>, 2011 and its main objectives are to provide managers and policymakers with the information needed to analyse resource utilisation, identify and investigate gaps and plan resource needs based on projected level of service delivery. It also provides the basis for the introduction of a National Health Service. Work is ongoing towards the final report.



**British Virgin Islands National Health Insurance Reports** (June, 2011)

Together with the external consultants on this project, the following members of staff at the HEU Centre contributed to a number of reports: **Stanley Lalta, Charmaine Metivier, Althea La Foucade, Christine Laptiste, Vyjanti Beharry, Leena Ramnath, Tishana Simon and Josette McDavid.**

Reports submitted to the Government of the British Virgin Islands under the project entitled, “*Completion of the Design and Implementation Support of a National Health Insurance System in the British Virgin Islands.*” A project done for the Government of the British Virgin Islands.

**UNICEF SITAN REPORTS:**

Contributors : **Althea La Foucade, Christine Laptiste, Kimberly-Ann Gittens-Baynes, Charmaine Metivier, Jean-Claude Roberts, Rani Bhajan, Tishana Simon, Leena Ramnath, Candice McKenzie, Machel Pantin and Haleema Ali.**

Deliverables for this project during the review period included a report on the *Situation Analysis of Children and Women in Trinidad and Tobago 2010 (Second Draft).*

*Research Completed by Individual Staff*

**Roger McLean**

- The impact of the global economic crisis on the Caribbean’s goals for Universal Access to prevention, treatment, care and support for HIV/AIDS. Paper prepared for the Caribbean Regional Consultation on Universal Access to be held in Trinidad and Tobago.

- Improving Universal Access to HIV Prevention, Treatment, Care and Support. Consultancy for a Study on the HIV Vulnerabilities of Migrant Workers in the Informal Economy among migrant workers from CARICOM countries in Antigua and Barbuda and Barbados. Study completed on behalf of UWIHARP.
- A Study of the Cost Benefit Analysis of introducing Quality Management Systems in Medical Laboratories in the Caribbean – A Focus on the Accreditation Process.

**Christine Laptiste**

- Health, Wealth and Development in the Caribbean: Theoretical Considerations. Co-author Vyjanti Beharry, 2011
- HIV and Tourism in the Caribbean: A Study of the Relationship between HIV and Tourism in Selected Caribbean Territories. A research paper submitted to the United Nations Development Programme, 2009-2010. R. McLean, K. Theodore, C. Metivier, A. La Foucade, C. Laptiste, K. Gittens-Baynes, V. Beharry

**Kyren Greigg**

- A Review of the Trinidad and Tobago Economy, 1994-2009.

**Patricia Edwards-Wescott**

- An Analysis of the Education, Health and Social Support Services available to Children with Disabilities in Tobago.

**Charmaine Metivier**

- The Impact of Poverty on the Health Status of the Elderly in the Caribbean: The Case of Jamaica.
- An Assessment of the Likely Economic Impact of Climate Change on the Health Sector in Trinidad and Tobago.

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- HIV and Tourism in the Caribbean: A Study of the Relationship between HIV Disease and Tourism in Selected Caribbean Territories. A research paper submitted to the UNDP.

## **Kimberly-Ann Gittens-Baynes**

- The Impact of Poverty on the Health Status of the Elderly in the Caribbean: The Case of Jamaica.
- HIV and Tourism in the Caribbean: A Study of the Relationship between HIV and Tourism in Selected Caribbean Territories. A research paper submitted to the UNDP.
- Situation Analysis of Children and Women in Trinidad and Tobago 2010. A research document submitted to the UNICEF.

## **Karl Theodore**

- Review of the Economics of Climate Change. A consultancy for the Health Sector under the DFID/UNECLAC Study.
- Revenue Generating Opportunities for the BVI (Supplemental Report). A study that proposes some measures to increase the capacity of the Government of the BVI to generate revenue by building on some of its existing sources and the development of new revenue sources.

## **Vyjanti Beharry**

- An Economic Response to HIV/AIDS: A Theoretical Investigation.

## *Research in Progress as a Centre Costing of Health Services in Trinidad and Tobago.*

### *Situation Analysis of Children and Women in Trinidad and Tobago.*

A study commissioned by the UNICEF. This project seeks to identify—to the greatest extent possible—the progress made by Trinidad and Tobago in the legal and policy framework of the Millennium Development Goals (MDGs), the Convention on the Rights of the Child (CRC) and the convention on the Elimination of all forms of Discrimination Against Women (CEDAW).

### *Completion of the Design and Implementation Support of a National Health Insurance System in the British Virgin Islands.*

A project commissioned by the Government of the BVI, which commenced with a reassessment of the health and economic environment of the Territory. Under the guidance of a formalised Steering Committee, the design of the National Health Insurance System advanced during the academic year, with outputs reflected in the Technical Reports that were submitted to the Government of the British Virgin Islands. In addition, the country's local expertise in National Health Insurance matters was enhanced through a Study Tour hosted by the National Health Insurance Board of the Turks and Caicos Islands.

In the current fiscal space, a system of National Health Insurance for the people of the British Virgin Islands is seen as an optimal response to increased demand for health care coupled with the continued escalation of health care costs in the region and elsewhere. The HEU's contribution to this national process goes hand-in-hand with one of its major organisational mandate of regional development.

## Teaching Programmes

The Centre continues to offer training in Health Economics at the PhD level and also continues to deliver the Health Economics courses and the supervision for Health Economics research that are components of the Masters in Public Health offered by the Faculty of Medicine

## Teaching and Learning

### Students' Internship Programme

The Centre continued its Internship programme which aims to offer hands-on experience in the world of work, as well as significant opportunities to interface with experienced health economists professionals and senior researchers at national and regional levels. The programme also assists interns in determining their future career and professional development particularly as it pertains to reading for higher degrees.

Two BSc Economics students at the end of their final year of study at the UWI were accepted to participate in the HEU's Internship Programme (June 2011) for a five-month period. They have been engaged in research initiatives and carried out field work with respect to the Costing of Health Services in Trinidad and Tobago. The interns were Ms. Jocelyn Muraa Koma and Ms. Shantal Malcolm. These two persons have shown great promise of becoming excellent researchers/Economists and we envisage that after their graduation they may continue to support the Centre's research activities with a likelihood of attachment as longer-term resource persons.

## Public Service and Outreach

Many of the projects executed by the HEU involve elements of public outreach such as stakeholder consultations and school surveys under the SITAN study; and Costing of Health Services Training Workshops for employees of the Ministry of Health and the Regional Health Authorities of Trinidad and Tobago-May 20, 2011. Staff also participated in national health insurance consultations and meetings in the Turks and Caicos Islands, the British Virgin Islands and the British Virgin Islands.

## Strengthening Regionality

### *Dutch Caribbean*

The HEU provided technical support to regional governments, namely Aruba, Bonaire, Curacao, Saba St. Maarten and St. Eustatius. The Centre was asked to provide support for the costing of the HIV/AIDS National Strategic Plans for six Dutch Caribbean countries covered under the ECOCT Project. Through the European Community (EC) funded project, the Pan American Health Organisation (PAHO) is supporting the development of National Strategic Plans for HIV and AIDS and in some cases National Health Plans, in keeping with the goal of integrating HIV into Primary Health Care.

### *Montserrat*

The HEU continues ongoing dialogue with the Government of Montserrat following that country's interest shown in the introduction of a National Health Insurance (NHI) System and following the HEU's submission of proposal for the, **"Review of Health Financing in Montserrat."**

### *British Virgin Islands*

The development of the National Health Insurance System for the British Virgin Islands continued in the academic year 2010/2011. Following an initial period of reassessment of the health and economic environment of the Territory and guided by the Policy Framework and a formalised Steering Committee, the design of the National Health Insurance System advanced during the academic year. The outputs are reflected in the Technical Reports that were submitted to the Government of the British Virgin Islands. In addition, the country's local expertise in National Health Insurance matters was enhanced through a Study Tour hosted by the National Health Insurance Board of the Turks and Caicos Islands.

# CENTRES & INSTITUTES

In the current fiscal space, a system of National Health Insurance for the people of the British Virgin Islands is seen as an optimal response to increased demand for health care coupled with the continued escalation of health care costs in the region and elsewhere. The HEU's contribution to this national process goes hand-in-hand with one of its major organisational mandate of regional development.

The Director of the HEU Centre visited the BVI during the academic year to engage in a number of key advisory meetings and presentations to the BVI NHI Steering Committee and to the Cabinet of the Government of the British Virgin Islands.

## *Antigua and Barbuda, Dominica, Grenada and St. Kitts and Nevis*

The HEU Centre continued and completed work on a study on, *Knowledge, Attitudes, Beliefs and Practices (KABP) Surveys in Four OECS Member States* - Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis. Five Technical Final reports were submitted to the OECS. To facilitate the survey exercise under this study, an HEU team also conducted in-country training sessions of field teams in each respective country as listed above.

## Strengthening the National Engagement Processes

The Centre conducted collaborative research work (preliminary analysis of data aimed at costing chronic non-communicable diseases) with chronic disease specialists from the Eric Williams Medical Sciences Complex. A proposal have been put forward for a consultancy to be held on a Time and Motion study and the cost analysis of a rapid screening protocol for chronic non-communicable diseases.

## *Costing of Alzheimer's disease in Trinidad and Tobago*

The HEU is collaborating with Prof. Amanda Mc Rae, Dr. Gershwin Davis and Dr. Nelleen Baboolal from the Faculty of Medicine in this study and with the Central

Statistical Office of Trinidad and Tobago. An initial study is to be done in the Rio-Claro/ Mayaro area and expanded to the rest of Trinidad and Tobago at a later date.

## *Costing of Health Services throughout Trinidad and Tobago*

This project was scheduled to begin in February 2011. The main objective is to provide the basis for the introduction of a National Health Service.

## *Participation at a Strategic Planning Retreat in December 2010*

This retreated was hosted by Trinidad and Tobago Health Training Centre Strategic (TTHT). The main focus was to hold meaningful discussions on the TTHT's *Strategic Framework (2010-2015 And One-Year Implementation Plan: Needs-based training for high quality preventative care and treatment*.

The Centre has continued to participate in the work of The University of the West Indies HIV/AIDS Response Programme (UWIHARP). This programme covers all four campuses (Open Campus included) and is also represented on the Pan Caribbean Partnership on HIV/AIDS with active involvement on a number of sub-committees.

## *Outreach*

The Centre hosted the launch of an outstanding publication entitled, "*CARICOM: Policy Options for International Engagement*". This event was hosted in collaboration with the Campus Principal's Office -September 2010

## Revenue Generating Activities

### Efforts Made To Generate Additional Income

The HEU's academic staff members were directly involved in endeavours to secure financing for its operations. This was done through ventures of consultancy provision, research projects and proposal writing in selected work/research areas that are in accordance with the organisation's strategic objectives and skills.

## Projected Activities

### Proposed Participation in and Presentations at Conferences

The HEU is to host conference on, *Dementia in Trinidad and Tobago* and to participate in conferences on HIV/AIDS Caribbean Conference (Bahamas November 2011), Caribbean Child Research Conference (Jamaica – October 2011) as well as the **XIX International AIDS Conference**. Washington D.C., USA (July 2012 )

### Publications (Proposed)

**Karl Theodore** done jointly with Mahendra Reddy, Happy Siphambe

*HIV/AIDS In Small Countries: When Small is Not Beautiful* – A Study of Countries in the Pacific, Southern Africa and the Caribbean- Developmental Changes of HIV/AIDS in Small States- *HIV/AIDS in Small States* provides an up-to-date and comprehensive analysis of the economic impacts of the epidemic in the Pacific, Southern Africa and the Caribbean. This is a new Commonwealth Secretariat Book to be published – October 2011.

## Distinguished Visitors

### Mrs. Violet Speek-Warnery

*Deputy Representative  
UNICEF/Barbados and the Eastern Caribbean Region*

### Dr. Augustine Agu

*Head of Office and Social Policy Specialist  
UNICEF Trinidad and Tobago Office*

### Dr. Alafia Samuels

*Senior Lecturer in Epidemiology and Public Health  
Director, Graduate Programmes in Public Health  
Faculty of Medical Sciences  
The University of the West Indies,  
Cave Hill Campus, Barbados  
October 2010*

The following distinguished persons attended the Launch of outstanding publication entitled, "CARICOM: Policy Options for International Engagement", on September 2010 at the HEU Auditorium, HEU Centre 25A Warner Street, St. Augustine. This event was hosted in collaboration with the Campus Principal's Office.

### The Most Honourable Sir Kenneth Hall O.N. GCMG

*Former Pro Vice Chancellor and Principal Mona Campus AND  
Former Governor General of Jamaica*

### Professor Timothy Shaw

*Director  
Institute of International Relations*

### Professor Clement Sankat

*Pro Vice Chancellor and Campus Principal  
St. Augustine Campus*

### Dr. The Honourable Surujrattan Rambachan

*Minister of Foreign Affairs  
Republic of Trinidad and Tobago*

### Mrs. Myrtle Chuck-A-Sang

*Project Director  
UWI-CARICOM Project*

### Dr. Anton Cumberbatch

*Chief Medical Officer  
Ministry of Health, Trinidad and Tobago*

# INSTITUTE FOR GENDER AND DEVELOPMENT STUDIES (IGDS)

## Executive Summary

Significant changes were made to the staffing arrangements at the Institute. The year saw the addition of a new academic and support staff: The IGDS also bid farewell to Prof. Jane Parpart, Assistant Lecturer and Graduate Studies Coordinator and Rev. Dr. Eddy Bermingham, Part-Time Lecturer. Ms Jeanne Roach-Baptiste replaced Prof. Parpart as Graduate Studies Coordinator. The Institute also continued to work on redesigning the IGDS webpage which went live in October 2011.

The St. Augustine (STA) Unit staff continues supervision of postgraduate students at Cave Hill and Mona as well as for other UWI Departments at St. Augustine. The STA Unit has **three MPhil** and **nine PhD students** for the period under review.

## Research and Innovation

The IGDS staff have been engaged in a number of research projects on: women and trade, Caribbean feminisms, global democracy, gender, development and empowerment, gender, labour, migration and environmental issues, gender, ethnicity, and identify gender-based differentials in secondary and tertiary education systems in T&T, and gender, sexuality and the implications for HIV/AIDS.

### IGDS Reading Room

The book collection is now computerised, simplifying information gathering for students and others users. The number of items in this database stands at 2488.

### *Research in Progress*

#### **G. Hosein**

*Politics, Power and Gender Justice in the Anglophone Caribbean: Women's Understanding of Politics, Experiences of Political Contestation and the Possibilities for Gender Transformation.*

This research project examines four strategies to promote democratic governance, women's rights and gender equality. First, women's political leadership is explored for the extent to which it creates greater governmental will and capacity to more actively and effectively transform gender relations both within and outside of the state. Second, quota systems are assessed for their impact on effective women's participation and leadership in representative government. Third, the usefulness of National Gender Policy documents for promoting gender equality is evaluated. Finally, the impact of feminist movement-building on women's capacity to be effective transformational leaders within democratic political life is investigated. Researchers: Prof. Ann Marie Bissessar; Dr. Natalie Persadie; Ms. Deborah McFee; Ms. Shirley Campbell.

#### **P. Pangsapa**

*Environment and Citizenship in the Caribbean*

This is a research project to explore the connections between questions of social and environmental injustice in the context of ten island-nation states. The study aims to provide an empirical assessment of whether awareness of injustices generates greater responsibility through civic engagement and competing ideas of citizenship. It will also assess the impact of diverse cultural backgrounds on environmental and ecological citizenship and examine the links between environmental justice and citizenship in this rapidly changing region. Researchers will investigate the kinds of resistance networks emerging throughout the region, and analyse the effectiveness of the work of social movements and civil society groups.



**J.L. Parpart**

*Transnational Migrant Coping Strategies in the Current Economic Crisis: a pilot study*

This study will establish a base-line review of existing literature and carry out field research on the impact of the current crisis on these migration patterns. The sites will initially focus on Trinidadian and Mexican migration to Canada and the United States, with the aim of establishing a larger project once the pilot studies are completed. A paper will be presented at the International Studies Association meeting to discuss initial findings.

*Researchers: Jane Parpart, Deborah Mohammed and Marianne Marchand*

## Service to UWI 12+1 Countries and Other Underserved Communities

### **Break the Silence Workshops: 2010/2011**

The IGDS in collaboration with the T&T Coalition Against Domestic Violence and Arts in Action implemented a series of workshop in 2010/2011 throughout T&T aimed at educating community members and service providers about the effects of Child Sexual Abuse (CSA)/incest and HIV. Funding and technical support came from UNICEF and the UN Trust Fund to End Violence Against Women.

### **Development of a National Gender Policy for the British Virgin Islands**

The Institute was asked by the Office of Gender Affairs, Ministry of Health & Social Development of the British Virgin Islands to conduct a workshop in November 2010 in the development and implementation of a National Gender Policy for the Government of the British Virgin Islands. Workshops were conducted with Media Workers, Public Officers and National Consultations.

*Lead Consultants* – Prof. Patricia Mohammed with Prof. Jane Parpart and Ms. Deborah McFee; Ms. McFee worked on the policy and produced a manual.

### **Bermuda Department of Human Affairs, Government of Bermuda**

In March 2011, the Bermudian Government, Department of Human Affairs approached the Unit to secure support/collaboration in establishing a Gender Bureau or Dept. of Women's Affairs.

*Lead Consultants:* Prof. Patricia Mohammed, Prof. Jane Parpart and Ms. Deborah McFee.

### **Belize Gender and Development Training in Belize**

In September 2010, the Belize Women's Department approached the IGDS to secure training for a UNIFEM-funded Gender and Development training workshop for their staff. The Institute agreed to provide the context for the training design and plan to complete the training by end of May 2011.

*Lead Consultant:* Ms. Deborah McFee.

### **University of Quesqeya, Haiti**

The Institute was represented by Ms. Shelley Santiago on the UNIFEM/Haiti project on curriculum development and gender mainstreaming curricula with the Regional Coordinating Unit, Mona, Jamaica. The project supports the training efforts of the University of Quesqeya, Haiti. The project team members held meetings in Port-au-Prince, May 2011.

## Outreach

### **Belize Gender and Development Training in Belize**

In September 2010, The Belize Women's Department approached the Unit to secure training from the IGDS for a UNIFEM-funded Gender and Development training workshop for their staff. The STA Unit agreed to provide the context for the training design and planned to complete the training by the end of May 2011.

*Lead Consultant:* Ms. Deborah Mc Fee.

## **Bermuda Department of Human Affairs, Government of Bermuda**

In March 2011, The Bermudian Government, Department of Human Affairs approached the Unit to secure support/collaboration in establishing a Gender Bureau or Department of Women's Affairs.

**Lead Consultants:** Prof. Patricia Mohammed, Prof. Jane Parpart and Ms. Deborah McFee.

## **Development of a National Gender Policy for the British Virgin Islands**

The STA Unit was asked by the Office of Gender Affairs, Ministry of Health & Social Development of the British Virgin Island to conduct a workshop in November 2010 on the development and implementation of a national Gender Policy for the Government of the British Virgin Islands. Workshops were conducted with Media Workers, Public Officers and National Consultants.

**Lead Consultants:** Prof. Patricia Mohammed, Prof. Jane Parpart and Ms. Deborah McFee.

## **IGDS Public Lecture by Prof. Verene Shepherd**

*“The International Year for People of African Descent: is the Caribbean Prepared?”*

Professor Verene Shepherd, is the newly appointed University Director and Regional Coordinator of the IGDS, Mona Campus. Guided by continued discrimination against people of African descent, especially Structural discrimination, and the need to implement the Durban Declaration and Programme of Action, the United Nations declared 2011 as the International Year for People of African Descent.

## **Lunchtime Seminars**

Eleven lunchtime seminars were held during Semesters I and II of the 2010/2011 academic year. These seminars continued to attract a wide cross-section of the UWI and non-UWI community and were well attended.

## **International Women's Day**

For the entire month of March, the IGDS, St. Augustine Campus commemorated International Women's Day 2011 with its stakeholders.

## **Strengthening National Engagement Processes**

*Water for Life: The Trinidad and Tobago Initiative: A Model for Community Participation*

Partner organisations include: the Royal Bank of Canada, Texas A&M University, the University of East Anglia, Global Water Partnership (Caribbean) and the Women Gender and Water Network. The overall aim of the project is the successful delivery of gender sensitive, educational interventions to improve water safety and water quality in water-scarce communities in the Republic of Trinidad and Tobago.

The IGDS/Women Gender Water Network (IGDS/WGWN) engaged in the planning phase of its 2011 Children's Vacation Water Camps. These camps form part of the larger Children Gender Water Research and Outreach Programme. The 2011 initiative was held in the communities of Matelot, Biche and Icacos for children between the ages of 7- 12 years. The 2011 Children's Water Vacation Camps took place for the period, 18<sup>th</sup> July 2011 to 26<sup>th</sup> August, 2011: July 18 – 29 (Matelot Camp), August 2 – 12 (Biche Camp), August 15 – 26 (Icacos Camp).

In commemoration of World Water Day (March 22), the WGWN held an Educational River Lime at the Matelot Community School, Matelot Village, a gender and water game was developed by the Outreach Desk of the IGDS in collaboration with Dr. Freddi Deare and Keizel Kidd entitled, 'Who Does What? An interactive group exercise exploring gender roles and responsibilities around water use in different communities for ages 8 – 12. Focus groups were held in two schools - Biche (completed January 25<sup>th</sup> 2011) and Curepe.

*Trade-related Workshops*

The Trinidad & Tobago National Working Committee on Trade (NWCT) in collaboration with the Caribbean Policy Development Centre (CPDC) hosted a series of workshops on Trade related Labour and Gender Issues in the context of the CARICOM/CANADA Negotiations. The Institute was invited to design and deliver the Gender and Trade module of three of these workshops July – October 2010.

*Breaking the Silence: A Multi-Sectoral Approach to Preventing and Addressing Child Sexual Abuse in Trinidad and Tobago*

*Rhoda Reddock, Sandra Reid, Jane Parpart, Tisha Nickenig, Kathryn Chan, Keshan Latchman*

**Project Partners:** *Coalition Against Domestic Violence (CADV), Caribbean Health Research Council (CHRC) and Arts in Action (UWI Department of Creative and Festival Arts).*

**Funded and Supported by:** *The UN Trust Fund to End Violence Against Women and the UN International Children’s Emergency Fund (UNICEF), Trinidad and Tobago.*

Breaking the Walls of Silence events that have happened across the country throughout the month of April 2011 in support of the Institute’s Break the Silence: End Child Sexual Abuse Project. Successful marches were held in communities in San Fernando Couva, Tunapuna and Barrackpore and have held two that seem to have been very well-attended and successful. Another successful event occurred on Saturday, April 7<sup>th</sup> 2011 on Murray Street in Port of Spain featuring amazing murals that people drew in support of the campaign. Some of the artwork is on our facebook page.

*Building Responsive Policy: Gender, Sexual Culture and HIV & AIDS in the Caribbean*

**Research Team:**

*Prof. Rhoda Reddock, Dr. Sandra Reid, Dr. Gabrielle Hosein, Dr. Tia Cooper, Ms. Tisha Nickenig, Mr. Keshan Latchman*

This project aims to produce knowledge of the sexual cultures of the Caribbean region and the implications for HIV/AIDS risk. Project research is taking place in three countries throughout the region – Barbados, Suriname, and Trinidad and Tobago. In each research site two common baseline studies are being carried out: a secondary analysis of the political economy of sexuality and HIV/AIDS in each of the selected countries; and an examination of selected media and informational/advocacy campaigns on HIV/AIDS to document and assess the underlying messages that challenge or reinforce the gender-based causes of the epidemic.

The Final Project Evaluation Report was edited and analysed by the Research Team. It was submitted to the UN Trust Fund to End Violence Against Women and UN Women in November 2011.

**Funded and supported by:** The International Development Research Centre (IDRC) and the United Nations Fund for Women (UNIFEM), Caribbean Office.

During the reporting period, the following activities related to the Project outcome evaluation were completed: The Final Project Evaluation Report was edited and analysed by the Research Team. It was submitted to the UN Trust Fund to End Violence Against Women and UN Women in November 2011.

# CENTRES & INSTITUTES

## *A Caribbean Studies Virtual Museum*

Funded through the Government of Trinidad and Tobago Research Grant, this Virtual Museum intends to engage the subject matter of cultural phenomena from a contemporary perspective, while establishing trails and traces to the past. It attempts also to invert the still popular idea of musea as forgotten or outdated relics to be preserved in hard textured form and formats, and tap onto a population of users, local, regional and international who increasingly draw on web based resources to travel vicariously to other countries and cultures.

This project is in the process of being handed over to the University of the West Indies Library to be stored in the D Space and hosted in their collection.

## *Conceptualising Global Democracy,*

**IGDS Researcher:** Prof. Patricia Mohammed

A project of the Centre for Study of Globalisation and Regionalisation, The University of Warwick, Coventry, this is a five-year \$1.5 million initiative to explore how 'rule by and for the people' can operate when addressing global challenges of the present age. The work takes an interregional, intercultural and interdisciplinary approaching addressing this vital issue. The programme orientation further more espouses diversity, empowerment, and practitioner-researcher interchange. The theme being covered in this project by Prof. Mohammed is 'Gender and Global Democracy' ([www.buildingglobaldemocracy.org](http://www.buildingglobaldemocracy.org)).

This project is completed and the findings were presented at two global workshops and conferences - the first in Cairo, December 2009 and the second in Montreal, March 2011, a completed paper entitled "Gender Policies and Global Democracy: Lessons from the Caribbean". It will be published as a chapter in a forthcoming book edited by van Scholte on the theme of Conceptualising Global Democracy. It is already being used widely by policy makers and government officials who work in the area of gender affairs.

## *Gender Sensitivity and Awareness Training – Civilian Conservation Corps*

On behalf of the Ministry of National Security, the IGDS facilitated a skills training programme targeting vulnerable youth between the ages of 15-24. The last workshop was conducted in Sangre Grande on May 19<sup>th</sup> 2011, completing the current cycle of CCC training.

## *Our Story: Women, Peace and Security in Trinidad and Tobago*

Prof. Rhoda Reddock was part of an expert panel that analysed the video presentation of *Our Story: Women, Peace and Security in Trinidad and Tobago*. The public viewing of this 30-minute documentary that tells the story of the impact of gun violence on women and families was held at NALIS and was organised by the Women's Institute for Alternative Development (WINAD) in collaboration with the Gender Affairs Division, Ministry of Planning Economic and Social Restructuring and Gender Affairs on Friday, April 15<sup>th</sup> 2011.

## *Outreach with Non-UWI Institutions*

### **Media Interviews & Feature**

The visibility of the Unit was also enhanced through staff participation in media interviews on radio and television conducted during the period specifically in relation to the November 20<sup>th</sup> 2010 Justice for Children March commemorating Universal Children's Day on the IGDS project, *Breaking the Silence: End Child Sexual Abuse*.

### **IGDS Promotions:**

Several activities were undertaken during the period under review to increase IGDS visibility, as well as to accelerate marketing and promotion of the IGDS teaching programme:

IGDS New Website designed and developed by Kathryn Chan, IGDS Contract Officer, in collaboration with Campus Information Technology, St. Augustine Campus. The new platform has been designed and technically achieved by the CITs personnel. The website will incorporate video,

photos, and text, will interact with IGDS channels on Flickr, You Tube, and Facebook in tune with the current strategies of the CITs and the Marketing and Communications at UWI.

The 2010/2011 IGDS Handbook was produced in August 2010 in time for the new academic year.

Promotions for Breaking the Silence: End Child Sexual Abuse project include the blue teddy bear symbol developed by Ms. Chan (in collaboration with illustrator, Kenneth Scott); the logo is the official symbol for the campaign; other promotional items to raise awareness and support the cause include: t-shirts with the teddy bear logo, info cards, teddy bear lapel pins, teddy bear fridge magnets, buttons, and blue icing cup cakes (donated by Kiss Baking Company). These items were sold at the Universal March for Children which took place on Saturday, November 20<sup>th</sup>, 2010 in POS. All proceeds go towards the campaign.

## Revenue Generating Activities

The IGDS / Women Gender Water Network (IGDS/WGWN) 2011 Children's Vacation Water Camps was funded by Atlantic LNG Co. Ltd. in the amount of TT\$63,430.00. The Ministry of Community Development (CDF) sponsored TTD 240,000.00 and the UWI Department of Chemistry purchased nine water testing kits totalling TT\$5,382.00.

The IGDS' Graduate Programme earned approximately \$100,000.00. Politics, Power and Gender Justice in the Anglophone Caribbean: Women's Understanding of Politics, Experiences of Political Contestation and the Possibilities for Gender Transformation was funded by the International Development Research Centre (IDRC) in the amount of CND \$200,000.00. The Break the Silence campaign received TT\$100,000.00 from the Ministry of National Security and the Campus Research and Publication Fund awarded TT\$40,000.00 for the Environment and Citizenship in the Caribbean project.

## Distinguished Visitors

### **Professor Verene Shepherd**

*University Director and Regional Coordinator of the Institute for Gender and Development Studies  
The University of the West Indies, Mona, Jamaica.*

### **Ms. Roberta Clarke**

*Regional Programme Director  
UN Women Caribbean Office, Barbados*

### **Ms. Tammy Yates**

*Officer-in-Charge, UNFPA Sub-Regional Office for the Caribbean-  
Trinidad and Tobago  
UN Gender Theme Group, UNFPA, Trinidad*

### *Visiting Scholars to the Institute*

#### *Visiting Senior Fellow*

The Unit welcomed **Dr. Rawwida Baksh** in joint collaboration with the Institute of International Relations – UWI, St. Augustine in October 2010. Dr. Baksh is Programme Leader of the Women's Rights and Citizenship Programme at the IDRC Canada and will be supporting the IGDS research project on women in politics.

#### *Visiting US Fulbright Scholars:*

**Dr. Kishi Animashaun Ducre**, Assistant Professor in the Department of African American Studies at Syracuse University – January 2011 to July 2011.

#### *Visiting US Fulbright Doctoral students:*

**Jacob Campbell**, Anthropology, University of Arizona  
**J. Brent Crosson**, Cultural Anthropology, University of California-Santa Cruz

#### *Visiting Doctoral students:*

**Hanna Klien**, Anthropology, University of Vienna  
**Katherine Miranda**, Caribbean literature, University of Puerto Rico, Río Piedras  
**Kavyta Raghunandan**, Centre for Interdisciplinary Gender Studies, University of Leeds (UK)  
**Rebecca Lynch**, Anthropology, University College London  
**Kendra Ann Pitt**, Sociology and Equity Studies in Education at the University of Toronto,



### INSTITUTE OF INTERNATIONAL RELATIONS (IIR)

The Institute of International Relations began Academic Year 2010/2011 with several planned activities starting from the very beginning of the August, 2010 and continuing throughout the year. The 2<sup>nd</sup> August, 2010 began with several of our Caribbean colleagues joining the Trinidad delegation for the start of an AusAID CARICOM Diplomatic training. This was closely followed on 4<sup>th</sup> August, 2010 by a high-level delegation from School of International Studies, Peking University, China.

Our increased programming was intended to maximise synergies among several dimensions: post-graduate degrees, research & publication, alumni development, outreach & income generation. In September 2010, the Institute offered the MSc in Guyana and the start of new academic years 2010/2011 featured orientations for new cohorts. The MPhil/PhD degree was advanced by a series of formal & informal seminars, a couple with the GSB. And a half-dozen post-grads published a special issue of *Caribbean Dialogue* from SALISES on their work. And with the new Foreign Minister, in June 2010 we participated in a retreat for his Ministry on foreign policy.

While calendar year 2010 had opened with a workshop with Project Ploughshares, CARICOM-IMPACS & CD-RAV on SALW, it concluded with another with the same partners to launch a new collaboration funded by DFAIT in Ottawa on 'Strengthening CARICOM Cooperation to Reduce Gun Crime', with our focus with civil society to be on private security companies in the region ([www.ploughshares.ca](http://www.ploughshares.ca)). With UNDP we organised a mid-2010 workshop on 'Armed Violence & the MDGs' & in late-

2010 together launched the 20<sup>th</sup> anniversary *Human Development Report 2010* (<http://hdr.undp.org/en>) which included anticipation of the proposed *Caribbean HDR 2011* on 'citizen security'.

Dr Mark Kirton and team were awarded a subcontract to collect interview data for the latter in a half-dozen CARICOM members for EPTSI (Enhance Public Trust, Security & Inclusion) baseline survey in Guyana also for UNDP ([www.undp.org/gy](http://www.undp.org/gy)). At the end of 2010, we won a consultancy on regional integration from DfID.

In mid-2010 we hosted a series on Canadian-CARICOM with CPDC & NWCT. And in the 'fall' of 2010 we launched two edited collections from Ian Randle on the region: *CARICOM & New Worlds*. In November 2010, Dr Gale Rigobert organised WASD in St Lucia ([www.worldsustainable.org](http://www.worldsustainable.org)). We also hosted two CARICOM workshops on UNSC #1540 on WMD with O'Neil Hamilton – beginning with the first in July, 2010 of Academic Year 2009/2010 and then again in December, 2010 and in October, 2010 in Academic Year 2010/2011, the launch of the T&T Transparency Institute report on the Corruption Perception Index 2010.

IIR in mid-2010 received a high-level delegation from the School of International Studies at Peking University &, with the Office of the Campus Principal, the US ASS for Hemispheric Affairs, Professor Arturo Valenzuela. We received courtesy calls from Ambassadors from the EU, Germany, Netherlands, Switzerland & the UK as well as working visits from heads of ACS, IOM, OAS, UNDP, UNU etc.

Dr Annita Montoute animated & launched a new internship programme with a brunch in new year 2010. Ahead of the campus' 50<sup>th</sup> anniversary in October, we organised an IIR Day with five IIR Senior Research Fellows – Anthony Bryan, Anselm Francis, Johann Geiser, Peter Gonzales & Rosina Wiltshire – the six MScs



to receive distinction at graduation in October 2010 and eminent alums, with the Library nominating 44 of the later for special mention, one per annum. In late-2010, Professor Ramsaran was recognised through the award of emeritus status. A year earlier, Professor Girvan had received an honorary degree at the University of Havana. Professor Girvan was appointed to the UN Committee for Development Policy & as the UN Secretary-General's Special Representative for the Guyana-Venezuela Border Controversy. Occasional seminars were given by Ben Richardson (Warwick), Sheridan Hill (OAS), Taivo Taivenen (Helsinki), Stephen Woolcock (LSE) *et al.*

## SEISMIC RESEARCH CENTRE (SRC)

The Seismic Research Centre (SRC) has been providing Eastern Caribbean governments with expert advice on geologic events and associated hazards affecting these islands for over 50 years. It is the regional agency responsible for monitoring earthquakes and volcanoes and for carrying out fundamental research into these phenomena for the English-speaking islands of the Eastern Caribbean.

The SRC operates the largest network of seismographs and other geophysical monitoring instruments in the Caribbean region. Earthquake and volcano monitoring involve continuous collection and analysis of data and development and maintenance of monitoring techniques and instruments. These activities are the primary focus, but staff may be deployed as needed to any of the contributing countries. The Centre is one of the specialised research institutions of The University of the West Indies and its work directly impacts vulnerable island communities throughout the Eastern Caribbean.

In addition to the routine monitoring of 19 live volcanoes and a seismically active region, the SRC collaborates with local, regional and international agencies on research projects relevant to its core areas of operation (seismology, volcanology and education & outreach) to better understand the geologic processes at work in the region with a view to reducing risk. In recent years, the SRC has played a more active role in promoting geologic hazard awareness and it is also part of a regional effort to establish a tsunami warning system for the Caribbean and adjacent areas. In April 2008, the SRC assumed joint management of the Montserrat Volcano Observatory in an arrangement with the Institut de Physique du Globe de Paris (IPGP) of France.

## Executive Summary

Seismic activity continues to be at an elevated level in the Paria Peninsula and a new area of elevated activity now obtains in the area of Antigua-Barbuda. The seismograph network recorded a minimum of 879 earthquakes in our area of responsibility with 81% of these being located, an increase of just over 10% when compared with the previous reporting period. There were 25 significant felt events for the period, the strongest of which were four magnitude 5.1 events for earthquakes located in the Trinidad and Tobago region, St. Kitts and the Virgin Islands. Apart from the ongoing eruption of the Soufriere Hills Volcano on Montserrat, volcanic activity in the Eastern Caribbean was relatively quiet with most of the volcanoes exhibiting low levels of activity.

In addition to routine monitoring operations academic year 2010-2011 was a busy one with respect to the successful submission and execution of related projects. Two projects of note were continuation of C.O.R.E. (Creating Opportunity from Research Experience) Programme and celebration of Earth Day. Both projects were funded from the SRC Departmental Consultancy Fund. The 2011 C.O.R.E. Programme gave two students an opportunity to undertake a GPS experiment in Trinidad and Tobago. Earth Day was celebrated for the first time in 2010 with an Earth Day Art & Illustration Competition for lower secondary school students in Trinidad & Tobago. The top twelve entries were used to produce an SRC 2011 Calendar.

During the year we were successful in bidding for various grants with colleagues within and outside the region. A strong focus of these projects was the continued improvement of our capacity to detect and quantify the effects of large magnitude earthquakes in the Caribbean. In this regard we learnt, during 2011 of the approval by the Board of the Caribbean Catastrophic Risk Insurance Facility (CCRIF) of a grant (US\$120K), for the installation of an accelerometric network in the Caribbean. We were also informed that the government

of Trinidad and Tobago had approved a grant (US\$1.2M), to undertake seismic microzonation in Trinidad and Tobago. In addition to these initiatives, we continued work on a World Bank funded project (US\$80K grant), executed by the Disaster Risk Reduction Centre (DRRC) at Mona, for the development of a methodology for the estimation of earthquake risk. We also launched a GEM Caribbean Regional Programme with assistance (€45K grant) from the Global Earthquake Model (GEM) Foundation.

As a result of our regional and international collaborations during the period in review we will, over the period 2011-2015 be engaged in the execution of three projects for which grant funds have been obtained from the European Commission. These include: (1) TSUnami Alert REGional (TSUAREG) - a collaborative project (€352K grant) with the Institut de Physique du Globe de Paris (IPGP) through their observatories in Martinique and Guadeloupe for the installation of four VSAT stations in Antigua, Carriacou, Dominica and Saint Lucia; (2) REAKT (Real Time EArthquake RiSk ReducTion) - a collaborative project (€50K grant) that will improve the efficiency of real time earthquake risk mitigation methods and its capability to protect structures, infrastructures and people and (3) VUELCO (Volcanic Unrest in Europe and Latin America: Phenomenology, eruption precursors, hazard foreCast, and risk mitigatiOn) - a collaborative project (€175K grant), with 10 other institutions drawn from the UK, Spain, Italy, Germany, France, Mexico, Ecuador that aims to improve our understanding of the processes behind volcanic unrest and the ability to forecast its outcome.

## Operations

### *Seismograph networks*

The seismograph network operated by the Seismic Research Centre in the Eastern Caribbean currently consists of over 52 instruments that comprise a mixture of short period and broadband seismometers and accelerometers. All seismic stations send their data to an ftp server from where they are automatically sent to the SRC Headquarters at St. Augustine, Trinidad. The system data can be processed locally in real time if deemed necessary.

### *Ground deformation networks*

The SRC now operates a network of twelve continuous GPS stations (cGPS stations) in the Eastern Caribbean. These stations, located in Dominica (3 sites), Grenada, St Vincent, Antigua, St. Kitts, Nevis St. Vincent (2), Saint Lucia and Tobago were all fully operational throughout the period under review. They have been used along with other reference stations within the Caribbean Basin to investigate the tectonic velocity of this region. The network also aids in executing the campaign style GPS measurements used in our volcano monitoring networks. Data from the cGPS network is available online on request.

Two campaigns to monitor ground deformation were conducted during the period; one on Nevis (11–17 October 2010) and another in northern Dominica (18–23 October 2010). During the Nevis campaign a new continuously-operating GPS station was installed on the outskirts of the capital Charlestown. A new continuous GPS station (cGPS) was also installed in Saint Lucia and repairs were done to stations in Dominica. All stations were funded from the SRC Departmental Consultancy Fund.

### *Geothermal monitoring*

The Seismic Research Centre initiated geothermal monitoring of hot springs and fumaroles associated with Lesser Antilles volcanoes in 2001. Routine sampling in islands including Dominica, Saint Lucia, Grenada, St. Vincent, St. Kitts, and Nevis have taken place on a regular basis. No field visits were conducted during the reporting period due to leave of absence of the principal staff member involved in the measurements.

## **Seismic Activity 2010/2011**

During the period, the seismograph network (the ‘TRN network’) recorded a minimum of 879 earthquakes in the area of responsibility, of which a total of 709 events were located (81%), using our own data and the data contributions from Martinique, Guadeloupe, Puerto

Rico and Venezuela. The locations represent an increase of just over 10% when compared with the previous reporting period. There were 25 events reported felt for the period.

The pattern of seismicity seen in the Eastern Caribbean has been changing in recent years from the distribution of previous decades. The low level of seismicity noted in the last report being observed in the Antigua-Barbuda area has been replaced by one of elevated activity. From January to the end of the reporting period 125 earthquakes were located in the area; the largest, of magnitude 5.1, was located west of Saba. Almost 60% of the events for the period were located north of 15°N and serves to emphasise the level of the change in output in the Antigua-Barbuda area. The elevated output level around Dominica, apparent since the 2004 November 21 magnitude 6.0 and 2007 November 29 magnitude 7.3 earthquakes in the area, persists. The dense concentration of epicentres usually seen in the vicinity of the Paria Peninsula continues to be evident, with 167 of the 709 located events (more than 23%) occurring within our area of responsibility south of 11.5°N and west of 61.7°W. The largest on land Trinidad event was of magnitude 4.7 and was located near the north coast.

## **Volcanic Activity 2010/2011**

Generally, the volcanic centres in the Eastern Caribbean have exhibited low levels of activity throughout the review period. In northern Dominica elevated seismic activity which began in June 2009 has diminished compared to that observed during the previous reporting period. In Montserrat, activity at Soufriere Hills volcano has remained low for the whole year and there has been no extrusion of lava. The volcano continues to emit sulphur dioxide at significant levels, but below the eruption average. Ground deformation studies indicate that an island-wide inflationary signal, radiating from the volcano is occurring, similar to previous pauses in activity over the 16 years of the eruption. Seismicity is also low, however short bursts of Volcano Tectonic

# CENTRES & INSTITUTES

earthquakes (up to 30) continued to occur occasionally over periods of approximately 30 minutes. On clear nights, spots of incandescence were visible on the lava dome. This indicates temperatures in fractures near the surface are still in excess of 500°C and all monitoring evidence taken together indicates that the eruption has not ended and that hot gases from depth are still able to escape freely to the surface.

## Research and Innovation

The research effort of the SRC is focused primarily on seismology, volcanology and outreach with a view towards an improvement in our ability to provide accurate and up-to-date information about earthquake and volcanic activity in the Eastern Caribbean.

### *Major Projects Initiated/Completed 2010-2011*

The third **C.O.R.E. (Creating Opportunity from Research Experience) Programme** was held. The SRC introduced this summer internship programme for highly motivated university level students interested in pursuing geoscience careers. Students were provided with an opportunity to work closely with SRC staff on a current research project. This year students were involved in a project with one of our extra-regional collaborators collecting GPS data. **(Funding: SRC DCF TT\$20K)**

**Earth Day Art & Illustration Competition and 2011 Calendar.** The SRC celebrated Earth Day for the first time in 2010 with an Art & Illustration competition for lower secondary school students in Trinidad & Tobago, to raise awareness on geo-hazards that affect the Caribbean. The top twelve entries were selected for publication in the Seismic Research Centre's 2011 calendar which was officially launched in December 2010. **(Funding: SRC DCF TT\$32K)**

Installation of new continuous GPS stations (cGPS) in Nevis and Saint Lucia and additional stations in Dominica. **(Funding: SRC DCF US\$15K)**

### *New and Ongoing Projects*

**GEM Caribbean Regional Programme:** Initiation of a Regional Programme for the Caribbean under the umbrella of the Global Earthquake Model (GEM) (see <http://www.globalquakemodel.org/regional-programmes/caribbean> for details). The Global Earthquake Model (GEM) is a global collaborative effort that brings together state-of-the-art science, national, regional and international organisations and individuals aimed at the establishment of uniform and open standards for calculating and communicating earthquake risk worldwide.

**(Funding: GEM Foundation €45K)**

**Installation of two radon monitoring stations in south-west Tobago:** This study seeks to test the utility of changes in radon output as a seismic surveillance tool in the Eastern Caribbean. It has proved useful in other parts of the World.

**(Funding: SRC DCF and Campus Research and Publication Fund Committee US\$25K)**

**GFDRR Disaster Vulnerability and Risk Assessment Modelling Jamaica and the Greater Caribbean Basin Project:** This is a project managed by the Disaster Risk Reduction Centre (DRRC) and funded by the World Bank to produce a regional scale Risk Atlas for Flood, Hurricane and Earthquake and high resolution maps for similar hazards for four islands. **(Funding: World Bank US\$80K)**

**Montserrat Volcano Observatory (MVO) Management Contract:** this is a management contract for the Montserrat Volcano Observatory for the period April 2008-March 2013. This project supports the full-time employment of five members of staff, several support staff and other associated costs for running the Observatory. **(Funding: Government of Montserrat EC\$23M over 5 years)**

**TSUnami Alert REGional (TSUAREG):** A collaborative project with and funded by the Institut de Physique du Globe de Paris (IPGP) through their observatories in Martinique and Guadeloupe for the installation of four VSAT stations in Antigua, Carriacou, Dominica and Saint Lucia. The objective is to enhance the regional seismograph network for tsunami detection and promote data sharing, which will feed into efforts to better understand the tectonics of the Eastern Caribbean. **(Funding: European Commission €352K)**

**REAKT (Real Time EArthquake RisK ReducTion):** A collaborative three-year project with 23 countries, primarily in Europe. The general objective is to improve the efficiency of real time earthquake risk mitigation methods and its capability of protecting structures, infrastructures and people. The Eastern Caribbean will be a test region for the products developed. **(Funding: European €50K)**

**VUELCO (Volcanic Unrest in Europe and Latin America: Phenomenology, eruption precursors, hazard foreCast, and risk mitigatiOn):** A collaborative four-year project, with 10 other institutions drawn from the UK, Spain, Italy, Germany, France, Mexico, Ecuador. The broad aim is to significantly improve our understanding of the processes behind volcanic unrest and the ability to forecast its outcome aiding decision-making and management in an unrest situation. **(Funding: European Commission €175K)**

**Seismic Microzonation Studies in Trinidad and Tobago:** This project seeks to develop maps showing details of the difference levels of a particular geotechnical hazard that may be triggered by an earthquake in areas of interest e.g. a city. Under the project, seismic microzonation studies will be conducted in strategic areas within Trinidad and Tobago and a programme will be established to enable the updating of such maps to promote the sustainability of this work.

**(Funding: Government of the Republic of Trinidad and Tobago US\$1.2M over 10 years)**

**A New Accelerometric Network to Evaluate and Mitigate Seismic Risk in the Eastern Caribbean and Jamaica:** This project seeks to establish a core network of strong motion instruments in the Eastern Caribbean and Jamaica as a crucial element of implementation of effective disaster risk reduction measures for earthquakes in the region. The key beneficiary will be the people living in the Caribbean since it will build the database necessary for guiding in the construction of earthquake resistant buildings. **(Funding: Caribbean Catastrophic Risk Insurance Facility US\$120K).**

Installation of five strong motion instruments in Trinidad and Tobago as part of a project **funded by the Trinidad and Tobago government** entitled “*Strong Ground Motion Studies in Trinidad and Tobago*”.

**Continuously Operating Caribbean GPS Observational Network (COCONET), an NSF funded project executed by the UNAVCO** consortium, intends to establish 50 new cGPS stations around the Caribbean Basin. SRC will contribute five existing cGPS stations in the Eastern Caribbean, **host four UNAVCO cGPS stations**, so expanding our network, and operate as a regional cGPS data products hub.

## Outreach

The Education and Outreach (E&O) arm of the Centre provides the bridge between the science and societal application of improved knowledge and understanding of the geological hazards. The E&O section coordinates the CORE summer internship programme, develops information material, maintains the Centre’s Internet tools and routinely coordinates seminars and workshops on geo-hazards for the public including special interest groups, community groups and students/teachers.

# CENTRES & INSTITUTES

## *Earth Science Week*

The SRC commemorated Earth Science Week 2010 with an educational earth science poster display on Earthquake Energy in the Young Adult section of the National Library of Trinidad and Tobago. The SRC also delivered an educational workshop to students aged 13 to 14yrs on the science of earthquakes and fundamental earthquake safety information. This workshop and display aimed to encourage student interest in Earth Science research and to promote scientific understanding and awareness of earthquakes in the Eastern Caribbean.

## *Tsunami Smart Workshop*

A Tsunami Smart Teacher Training Workshop was conducted in collaboration with the Office of Disaster Preparedness and Management (ODPM) at the Rudranath Capildeo Learning Resource Centre, Couva, Trinidad. The Workshop was a follow up to the Tsunami and Other Coastal Hazards Warning Systems Project, Public Education and Awareness Component. The Workshop catered for secondary level Geography and Social Studies teachers from Trinidad and Tobago and launched the teacher education products developed under the project. The material was designed to raise awareness of tsunamis and other coastal hazards in the Caribbean and to enhance material already being used within the formal school system.

## *GEM Workshop*

Members of the engineering and scientific communities together with representatives from international funding agencies and other regional stakeholders convened at the Kapok Hotel in Port of Spain Trinidad to launch the Global Earthquake Model (GEM) Caribbean Regional Programme which seeks to establish uniform and open standards for calculating and communicating earthquake risk worldwide.

Participants were introduced to the GEM goals and discussions were held to establish a strategy for achieving them. Through this interaction, it is hoped that gaps

in existing knowledge in the Caribbean regarding earthquake hazard, vulnerability and earthquake risk can be identified and the necessary research prioritised in order to make full use of the GEM software and tools in the Caribbean region.

Minister of Science, Technology and Tertiary Education, Senator The Honourable Minister Fazal Karim, delivered the feature address at the opening ceremony during which he declared his support for the initiative given the Caribbean's vulnerability to natural hazards such as earthquakes, which continue to undermine the region's efforts to attain sustainable development.

## *CORE Summer Internship*

This year's CORE Internship project sought to re-measure a network of 18 campaign stations in Trinidad and Tobago so as to improve the precision of past measurements and better understand the nature of tectonics in the Trinidad and Tobago region. The interns assisted in the occupation of GPS sites and in the compilation and processing of the data.

## *SciTechnofest*

The Centre participated in the NIHERST SciTechnoFest, a biannual national science fair held over two weeks in Trinidad and Tobago. The Centre mounted a display on earthquakes, volcanoes and tsunamis and staff members were on hand to field questions and provide geo-hazard safety information to the public.

## **Partnerships**

On campus, the Centre collaborated with the Departments of Civil Engineering and Surveying and Land Information in the Faculty of Engineering. Beyond the UWI the SRC partnered with a number of academic institutions including the University of Bristol, Department of Earth Sciences, United Kingdom; Universite Antilles Guyane, Guadeloupe; the University of East Anglia, School of Environmental Sciences, United Kingdom; Incorporated Research



Institutions for Seismology; UNAVCO Inc, Boulder, Colorado, USA; the Department of Geology, University of South Florida; the Department of Earth Science, University of Southern California; and the School of Applied Sciences, University of Northampton.

Partners in the field of monitoring & disaster management were Instituto Nazionale di Geofisica e Vulcanologia, Italy; Institut de Physique du Globe de Paris, France ; the Montserrat Volcano Observatory, Montserrat ;the Puerto Rico Seismic Network, the University of Puerto Rico; Fundacion Venezolana de Investigaciones Sismologicas (FUNVISIS), Venezuela; the Coastal Zone Unit, Barbados; the Earthquake Unit, Mona Campus, UWI, Jamaica, the CARICOM Regional Organisation for Standards and Quality; and the Caribbean Disaster Emergency Management Agency.

Support was also provided by the World Bank, the Caribbean Development Bank and Aspinall & Associates of the United Kingdom.

## Projected Activities

The SRC continues to struggle with the limitations of an old building which its current operations have long outgrown. The single most important activity for the Centre for the foreseeable future (until a building is constructed) is active lobbying for and engagement of all stakeholders in pursuing the cause of a new building. The Centre will continue to manage its monitoring operations, seek external funding and undertake research and other projects and continue to develop its outreach programmes as can best be done given current limitations. However, the focus for the SRC over the next biennium will be to secure the construction of a new building.

Some of the other specific projects which are either planned or already underway are summarised below.

**Seismic Hazard Assessment for the Caribbean** A collaborative two-year project to perform seismic hazard assessment for the Insular Caribbean including Belize, Hispaniola (Dominican Republic, Haiti), Suriname and the Guyanas. The project will be funded by the Caribbean Development Bank (CDB) and the Caribbean Regional Organisation for Standards and Quality (CROSQ). It again involves collaboration with the Engineering Seismology team of EUCENTRE to produce a new generation of seismic hazard maps, which will address the challenges encountered in the first project. (US\$230K)

**Young Geoscientists Programme** – An expansion of the existing programme to encourage secondary and undergraduate level students to pursue geoscience careers. This includes further development of the CORE internship programme to allow for participation of students from outside of Trinidad & Tobago and an annual 2-day geoscience career workshop for 3<sup>rd</sup> and 6<sup>th</sup> Form students. (TT \$90K)

**Geoscience Video Documentaries** – Production of three 20-minute educational video documentaries; Earthquakes in the Caribbean, Volcanoes in the Caribbean, Careers in Geoscience. (TT\$80K)

**Neotectonics GPS and EDM experiment (Trinidad and Tobago):** This is a collaborative project with Prof. John Weber from Grand Valley State University (USA). It involves tectonic modelling and the installation of approximately six cGPS stations to monitor near-field deformation throughout the CRF zone. The objective of the project is answer the question related to the seismic hazard of Trinidad, whether the Central Range Fault ( $12 \pm 3$  mm/yr of strike-slip motion) is locked or creeping, or can possibly generate slow earthquakes. It is planned to submit the project under the GEM umbrella to the World Bank.

**Construction of a new Home for the SRC** – at the end of the financial year, the increasingly cramped environment and **the need to lay in two fully appointed containers to increase office space**, with the prospect of an additional one, prompted the suggestion to approach the construction of the new facility for the Seismic Research Centre on a phased basis. A plan for the first phase was received, revised and is being processed by St. Augustine Campus Projects Office. The most recent update suggests that Facilities Management is preparing documents for tender.

**Revised web site for the SRC.** The current web site is now three years old and needs to be updated to be current with the needs of our stakeholders. (TT\$60K).

## SIR ARTHUR LEWIS INSTITUTE OF SOCIAL AND ECONOMIC STUDIES (SALISES)

### Introduction and Overview

The mission of the Sir Arthur Lewis Institute of Social & Economic Studies (SALISES) is “to undertake high-quality research and graduate teaching in the areas of social and economic development policy, governance and public policy with special reference to small developing countries” and a major thrust of its vision is to become “an internationally renowned institution for development policy analysis”. This work carried out in 2010/2011 is in keeping with the mission and vision of the SALISES and with the core objectives of the University’s Strategic Plan 2007-12. Reference in this report is to SALISES (St Augustine) unless explicitly stated otherwise.

The SALISES enjoyed a relatively successful academic year 2010/2011. Once again its staff participated in the teaching programmes of the wider Institute and Faculty and continued supervision of MSc, MPhil and PhD students. This year, three students upgraded from the MPhil to the PhD degree, and it is expected that more shall follow in their footsteps in the 2011/2012 academic year. The Institute continued delivery of the MSc in Development Statistics with a cohort of 20 and graduated nine persons. The programme continues to be targeted at the Caribbean region and serious efforts were undertaken in 2010/2011 to make it available on-line.

The Institute continued its scholarly, professional and outreach activity, which resulted in the publication of journal articles, technical reports and Caribbean Dialogue, the conduct of consulting and executive training programmes and the continuation of the public discussion series, the SALISES Forum. It hosted an international conference on the *Sustainable Development of Coastal Communities: Challenges and Solutions* over

the period June 1-3, 2011. We continued to bid for major research funding and were successful in winning an award worth close to 5 million Euros over three years.

It is the Institute's intention to go even further, in the 2011/2012 and later academic years, in these and other ventures.

## Students

### *Enrollment*

The SALISES (SA) continued its drive to recruit more students at the MPhil/Phd level with an intake of 13 such students in the 2010/2011 academic year. This is the largest intake ever at this level. 20 new students entered to read for the MSc in Development Statistics in 2010/2011 compared to 13 in 2009/2010. All our programmes appear to be more and more attractive.

### *Most outstanding students*

**John Cozier, Rudrawatee Ramgoolam and Mala Jekan** were upgraded from the MPhil to the PhD.

**Cindy Chadband, Claire Moolchan-Pandohie and Marina Smith** graduated with Distinction from the MSc Development Statistics.

### *Student success in academic competitions and awards received*

Preeya Mohan was awarded the Eric Williams Memorial Scholarship to pursue PhD studies. PhD scholarships were also awarded to Simon Clement and John Cozier, while an MPhil scholarship was awarded to Marlene Murray.

In addition to this, four students distinguished themselves by winning awards for placement at prestigious foreign Institutions. Reynatta Wiggins won a split-site Commonwealth scholarship award and to spend one year at the University of Leicester (UK); Alvinelle Matthew won a CARICOM Leadership Scholarship to spend one year at the University of Alberta, Canada; Varuna

Ramlal and John Cozier were funded by the German Bundesbank to attend a workshop in Eltville, Germany.

## Strategy Appraisal

### *Graduate Studies*

Teaching at the SALISES is strictly at the Graduate level so all teaching and learning outcomes are related to Graduate studies. MPhil-PhD students continued to make strides through making seminar presentations, attending conferences and presenting papers there.

### *Research and Innovation*

The SALISES research programme continued apace resulting in the publication of articles in regional and international and Technical Reports. These covered areas, all related to the Caribbean, such as climate change, tourism, crime and violence and migration. The Institute mapped out surveys for Bequia (St Vincent and the Grenadines) and San Pedro (Belize) as part of the IDRC/SSHRC CAN\$2 million funded programme on climate change.

The Institute began or continued work on a number of topics, including the establishment of a Domestic Violence Registry for Trinidad and Tobago; climate change and its impact on tourism; poverty; health care provision; energy efficiency; ageing; biodiversity; sport tourism; elderly victimisation; the financial sector in the Caribbean; Caribbean growth and development; injury prevention and safety promotion; population dynamics in the Caribbean; and social measurement in developing countries.

## Service to UWI 12+1 Countries and Other Underserved Communities

Some of the Institute's teaching and research activity are geared toward service to the UWI12+1 countries. The IDRC/SSHRC funded project on climate change pays special attention to the island of Bequia in St Vincent and the Grenadines and to the Barrier Reef in Belize. One student from each of these countries was offered an undergraduate scholarship from the funds available and should start their programme of study in the 2011/2012 academic year. One MPhil thesis is devoted largely to disaster management in Grenada. Students in the MSc Development Statistics have been encouraged to and have actually pursued research catering to the needs of UWI12+1 countries, in particular, St. Lucia and Montserrat. In addition, Dr. St. Bernard has begun processes to initiate research that will impact positively on data collection activities pertaining to domestic violence and violence against women in Dominica and other eastern Caribbean countries and territories. He also expects to draw on experiences from Belize.

### Faculty Outreach

The SALISES continued its very popular and informative Forum, a public education exercise which deals with topics of national, regional and international interest. The topics treated during the 2011/2012 academic year were *The Death Penalty in Trinidad and Tobago*, *The Current Industrial Relations Climate in Trinidad and Tobago*, *Equality and Diversity in Trinidad & Tobago*, *The People's Partnership Government: one year after* and *The Current State of West Indian Cricket*. The panelists were all distinguished personalities in their own field and the for a themselves were always extremely well attended.

The Institute also hosted an International Conference on the theme *Sustainable Development of Coastal Communities: Challenges and Solutions* over the period June 1-3, 2011. Participants came from all over the world and about 60 papers were presented. Conference participants also included community groups from Canada and Trinidad & Tobago. The Mayor of Port-of-Spain opened the conference, which was attended by the Mayor of Gibsons as part of the Canada delegation.

The Director delivered his inaugural Professorial lecture on the topic *Data Deficiency and Caribbean Development: an Unresolved Dilemma*.

## Revenue Generation

The SALISES (SA) earned income by conducting training programmes in SPSS with the Ministry of Science, Technology and Tertiary Education and Econometric Methods with the First Citizens Bank. This earned a net amount of about \$70,000.00.

## Projected Activities

The SALISES (SA) intends in the coming years to strengthen itself through a number of activities, including:

The continued the implementation of the ICURA Climate Change project, which will begin to see the appearance of published papers from this project as well as further conference papers and the continued supervision of graduate students;

Beginning another major project, funded by the European Union to the tune of 5 million euros, whose theme is Climate Change Adaptation Strategies for Water Resources and Human Livelihoods in the Coastal Zones of Small Island Developing States;

Organising and participating in a series of conferences commemorating 50 years of independence in the English-speaking Caribbean, in particular one in Trinidad on the theme *Trinidad and Tobago at 50: a model nation?*

As part of The University's celebration of the 50<sup>th</sup> anniversary of the Independence of Trinidad & Tobago, the SALISES is planning a discussion series entitled Conversations with Prime Ministers, which will host on separate occasions the four living Prime Ministers of Trinidad and Tobago.

The Institute will also be engaged in the following:  
Seeking funding through commissioned research and from grant agencies with a view to increasing staff complement and financing graduate study, so increasing the number of full-time research students;

Improving the profile of the Caribbean Dialogue and gradually transforming it into an online journal;

Establishment of a Summer Programme of the MSc Development Statistics, principally to facilitate attendance by candidates from the UWI12+1 countries.

## Distinguished Visitors

### Mr. David Abdullah

*Government Senator and President, Federation of Independent Trade Unions (FITUN), Trinidad and Tobago*

### Mr. Gregory Aboud

*President  
Downtown Owners' and Merchants' Association (DOMA)*

### Senator Terrence Deyalsingh

*Opposition Senator  
Member of Parliament  
Trinidad and Tobago*

### Mr. Watson Duke

*President  
Public Services Association (PSA)  
Trinidad and Tobago*

### Dr. Hamid Ghany

*Dean, Faculty of Social Sciences, UWI, St. Augustine*

### Mr. Lennox Grant

*Distinguished Journalist  
Trinidad and Tobago*

### Ms. Merle Hodge

*Former Senior Lecturer in Linguistics, UWI and  
Member of Women Working for Social Progress*

### Honourable Colm Imbert

*Member of Parliament for Diego Martine North-East and  
former Minister of Works and Transport, Trinidad and Tobago*

### Mr. Israel Khan SC

*Attorney-at-Law*

### Honourable Roodal Moonilal

*Member of Parliament for Oropuche East, Minister of Housing and the  
Environment and  
Leader of Government Business in the House of Representatives,  
Trinidad and Tobago*

### Prof. Balwin Mootoo

*Professor Emeritus in Chemistry, UWI, St. Augustine;  
First Vice President of the Trinidad and Tobago Cricket Board and  
Member of the West Indian Cricket Board*

### Mr. Deryck Murray

*Former West Indies Cricketer and former President of the Trinidad  
and Tobago Cricket Board and West Indian Cricket Board*

### Mr. Hollis Nicholas

*Director  
Human Resources  
UWI, St. Augustine*

### Honourable Basdeo Panday

*Former Prime Minister of Trinidad and Tobago*

### Honourable Surujrattan Rambachan

*Minister of Foreign Affairs and Communication  
Member of Parliament for Tabaquite, Trinidad and Tobago*

### Mr. Dinanath Ramnarine

*Former West Indian Cricketer  
President of the West Indian Players Association*

## SPORT AND PHYSICAL EDUCATION CENTRE (SPEC)

The Centre's founding Director, Dr. Iva Gloudon accepted an appointment as High Commissioner to Jamaica, Dominica Republic and Haiti and embarked on two years no pay leave. Ms. Lystra Francis, Senior Administrative Assistant is presently acting Director at the Sports Centre which experienced continued success hosting several landmark activities during the year. One of these was the 2010 edition of the UWI SPEC International Half-Marathon which attracted 1000 local and international athletes.

### Sporting Achievements

The UWI Men's Football Team won the UTT Tertiary Football League for the third consecutive time. The UWI Cricket Team also captured titles in the 20/20 Trinity Cricket League for the second year running as well as the Cave Hill Inter-Collegiate 20/20 Cricket Tournament.

The UWI Netball team won titles in the UTT Tertiary Netball League and the Courts All Sectors League (Alternate Division). The UWI track and field team produced medal winners at the Hampton International Games and the NAAA National Cross Country UWI Women's Tennis Team also copped the East Zone Club Championship title.

### Academic Programmes

The Centre continues to offer the following academic programmes:

*Certificate in The Art & Science of Coaching  
(under the aegis of the School of Education)*

*Minor in Sport Management  
(under the aegis of the Department of  
Management Studies)*

*BSc in Sport Management  
(under the aegis of the Department of  
Management Studies)*

*Post Graduate Diploma and a Masters' degree  
in Sport Management (under the aegis of the  
Department of Management Studies)*

Students continue to be awarded credit for participating in the Minding SPEC co-curricular programme.

### Students

The Centre was proud to provide mentorship for Jehue Gordon, professional athlete and Gold Medalist hurdler at the Junior World Championships in 2009.

There has been a growth in student organised sporting competitions. SPEC continues to assist the Guild of Students as well as the various clubs and faculties on the campus in staging their different sporting events for their members.

Most notable are the Guild of Students' Interfaculty and Hall Sports Week and the GUADIY football leagues. This year the Guild of Students dedicated their Orientation Week of Sporting Activities to the late Jesse Blackman former Sports Co-Coordinator at SPEC.

Students have been using the indoor court five days per week, due to the lack of the outdoor court space. Weekends are allocated for competitive team practice sessions. The outdoor fields are used mainly for cricket, football, rugby, track & field, hockey and sporting festivals. However, scheduled recreational use by students of all SPEC fields is allowed on specific days for use until 9:00pm.

The swimming pool and gym hours have been extended to facilitate the training of the competitive athletes.



Coaching programmes, led by our part-time coaches, in excess of ten disciplines, have also continued. These disciplines include Core Training, Aerobics, Aqua Aerobics, Badminton, Basketball, Cricket, Football (Men & Women), Hockey, Karate, Netball, Rugby, Stretch and Relaxation Classes, Spin Classes, Table Tennis, Taekwondo, Track & Field, Volleyball. Free Massages also continued to be offered to students. Additionally, there were three new fitness classes: Yoga, Aqua Training and Aqua Power Training.

Five athletes participated in UWI Mona Invitational Meet in 2011. The men's and women's Volleyball Teams achieved great success in the University of Trinidad and Tobago's Tertiary League, attaining the first and second place titles.

In May 2011, 153 students together with thirty (30) personnel including coaches, physiotherapists and technical staff represented UWI St. Augustine at the Biannual Campus Games in Cave Hill, Barbados. UWI St. Augustine tied for second place, securing major wins in swimming- the first win in 28 years. The Table Tennis Team has been undefeated since 2007.

## Staff

The UWI – St. Augustine Human Resource Department, in collaboration with SPEC, continues to offer a number of activities (aqua aerobics, aqua training; aqua power training; yoga; stretch) and massage and reflexology in promoting healthy lifestyles through the Wellness programme.

## Outreach

SPEC worked with the Defense Force Physical Training Instructors Programme and several national sporting organisations on administrative initiatives. The Centre provided technical support and a training facility for several national elite athletes, including the Trinidad and Tobago Senior Cricket Team which used the Sir Frank Worrell Cricket Pitch for training and competition.

Practice sessions for international teams participating in the FIFA Under 17 World Cup which was held in Trinidad and Tobago in September 2010, also took place at SPEC. Practice sessions for the National Women's Basketball Team and National Men's and Women's Volleyball Teams were hosted by the Centre, as were ;

The Centre provided programs in Cheerleading, Netball, Volleyball and Tennis to students of the University School and Tennis, Cricket and Football sessions to students at the nearby Lucia's Private Primary School. SPEC was part of the St. Francois Girls' College world-of-work Internship programme and facilitated the University of Trinidad and Tobago (UTT) Service Learning Interns;

The Centre hosted various UWI affiliated summer camps, sponsored the MILAT/MYPART athletes in the UWI SPEC International Half-Marathon and facilitated the International Tennis Federation (ITF) Play Tennis.

SPEC's Tennis Coach, Ms. Rhonda Mohammed coaches the University Junior School Tennis Team; Netball Coach, Ms. Antoinette Gaskin coaches the St. Charles Secondary School Netball Team; and the UWI Netball Students conducted a successful workshop with primary school students in La Fillette during the Easter vacation.

## Revenue Generation

### *International Half-Marathon*

First Citizens continued as the presenting sponsor of the 2010 International Half-Marathon having contributed over **\$350,000.00** towards the event. They have signed a contract for the next three years. Furthermore, corporate sponsorship was received from the Sport Company of Trinidad and Tobago in the amount of **\$125,000.00**. Additional race category sponsorships totaling **\$61,900.00** were received from current suppliers and other companies. This year the registration fee for participants remained at **\$25.00** and there were **1000** registrants. Revenue for the production of **SPEED** in the amount of **\$28,000.00** was received from the sale of full page advertisements in the magazine.

# CENTRES & INSTITUTES

## *Special Trade-off Sponsors (commitment of product)*

Blue Waters  
Gatorade  
Nestle  
Tourism Development Corporation

## *Other Sponsors*

Building Maintenance Services Ltd.  
Caribbean Express Co. Ltd.  
Clark & Battoo Limited  
Grill n More  
Guardian Holdings Limited  
Island Wash Laundry & Dry Cleaning Services  
Lease Operators Limited  
Maraj Hill General Contractors  
Narine Sound Company  
National Lottery Control Board  
Rhand Credit Union Co-operative Society Ltd  
Sport Way International  
Trinidad and Tobago Unit Trust Corporation  
Unilever Caribbean Ltd.  
UWI Alumni Association  
UWI Credit Union  
Wanter Enterprises Ltd.

## *Hampers*

A.S. Bryden  
Bermudez Biscuits Limited  
Glaxo Smithkline  
Hadco Ltd  
Happi Food Ltd  
Holiday Foods  
Johnson & Johnson Trinidad Limited  
Marketing and Distribution  
Nestle Trinidad & Tobago Limited  
Sacha Cosmetics Ltd  
Sunshine Snacks  
Unilever  
Vemco Ltd

## *Facility Rentals*

SPEC earns most of its revenue from facility rentals. The demand for use has been extremely high, but the Centre was unable to satisfy all requests because of student activities during the period. Our competitive teams were given top priority to prepare for the UWI Games 2011. Total rental revenue for 2010/2011 was approximately **\$179,710.00.**

The Centre continues to host many of the university's activities including examinations, graduations and the World of Work programmes.

## **Projected Activities**

Projected activities and upcoming events for the 2011/2012 academic year include introduction of the BSc in Sport and Exercise Science (under the aegis of the Faculty of Medicine); hosting of the UWI T20 Cricket Tournament; preparation for UWI Games MONA 2013; introduction of a UWI Dragon Boat Racing Team; and hosting of the UWI Annual Invitational Volleyball Tournament.

## **Distinguished Visitors**

### **Dr. Kent J. Blumenthal**

*Executive Director  
National Intramural-Recreational Sports Association  
Corvallis, OR, USA*

### **Coach Vern Gambetta**

*Master Coach in Athletic Development  
Spots and Training Systems  
Sarasota, Florida, USA*

### **Dr. R. Kevin Marbury**

*Director  
Old Dominion University  
Norfolk, VA, USA*

# PUBLICATIONS AND CONFERENCES

## Faculty of Engineering

### Journal Publications

#### Department of Chemical Engineering

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**Hosein, R.** and R.A. Dawe (2011) Development of a True Boiling Point Distillation Apparatus, *Journal of Petroleum Science and Technology*, 29 (9) p. 906-913.

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## Department of Geomatics Engineering & Land Management

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## **Department of Geomatics Engineering and Land Management**

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## Other Publications

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## Non-Refereed Publications and Related Works

### Department of Geomatics Engineering and Land Management

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Verrest H, **Mohammed, A** and Morecroft, S. 2011, Towards an Urban Agenda for the Caribbean; Policy Working Paper, CNULM. UWI St Augustine 36 pages.

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**Ramlal, B** and **Sutherland, M.** (2010) Enterprise Wide GIS Situational Analysis Report, Office of Disaster Preparedness and Disaster Management, Ministry of National Security, Government of Trinidad and Tobago, pp 24.

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## Conferences

### Department of Chemical Engineering

#### R.A Dawe

'Maximising Hydrocarbon Recovery – to the last drop.'  
GSTT Conference, Cara Suites  
Claxton bay, Trinidad, June 2011.

**R, Hosein, A.A.** Mohammed, R. **Hosein** and R. Dawe  
*An investigation for a viable method for commercial oil extraction from Trinidad tar sands.*  
GSTT Conference, Cara Suites  
Claxton bay, Trinidad, June 2011.

#### D.A. Janes

*Sourcing-Improvement Experiences in Medium-Sized Enterprises with Dispersed Sites.*  
(IEM011) 5th Project Management Practices in the Caribbean Seminar (PM5), pp 70 -77.  
Faculty of Engineering, UWI, St Augustine, Trinidad & Tobago, October 2010.

#### D.A. Janes

*Desktop Computational Fluid Dynamics with Open-Source Software*  
Paper presented at the (IEM012) Second Industrial Engineering and Management Conference (IEM 2010) "Fostering Engineering Networking, Collaboration and Competence" pp 78-83.  
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#### D.A. Janes

*Can Micro-Algae Help Mitigate Climate Change - Preliminary Growth-Rate Studies*, CAS Abstract #38. Paper presented at the Caribbean Academy of Sciences (CAS) 17th General Meeting and Conference, pp 60.  
St. John's, Antigua, November 2010.

#### W.A. Mellowes

*Science and the Caribbean*  
8<sup>th</sup> IANS Focal Point Meeting on Science and Technology, Mexico City, June /July 2011.

#### Cooper, V. and Mellowes, W.A.

*Water Management in Trinidad and Tobago: Problems, Perspectives, Challenges and the Role of National Academies".*  
Paper presented at the Caribbean Academy of Sciences (CAS) Conference on Climate Change in Antigua, November 2010.

**M. Sahoo**

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**B.J. Tyler.**

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PSA-10,

Gyeongju, Korea.

## Department of Civil and Environmental Engineering

**R. Charles**

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**R.P. Clarke.**

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## Department of Electrical & Computer Engineering

**K.I. Mallalieu**

*ICT: The Driver for Knowledge Based Societies and Transformation*  
7<sup>th</sup> Caribbean Ministerial Strategic Seminar,  
Washington, D.C. March, 2010.

**M. Lessey and K.I. Mallalieu,**

*Mobile Service Cost Profiler*"  
Ninth LACCEI Latin American and Caribbean Conference (LACCEI' 2011), Engineering for a Smart Planet, Innovation, Information Technology and Computational Tools for Sustainable Development, Medellin, Colombia. August 2011.

**K.I. Mallalieu** and L. Gomez,  
*Mobile Money in Support of LAC Micro-economies*  
LATAM Workshop, Microsoft Research Faculty Summit.  
Seattle, WA, USA. July 2011.

**K.I. Mallalieu**

*Twenty-first Century Education*  
Guest Address, Microsoft Education Robotics Conference.  
St. Augustine Trinidad and Tobago. June 2011.

**K.I. Mallalieu**

*Harnessing the Power of Innovation, the Engine for ICT-enabled Caribbean Development*  
Keynote Address. The Caribbean ICT Roadshow.  
Port of Spain, Trinidad and Tobago, February 2011.

**K.I. Mallalieu**

*Mobile Services: The Untapped Resource*,  
8th Caribbean Ministerial Strategic ICT Seminar.  
Port of Spain, Trinidad and Tobago, February 2011.

**K.I. Mallalieu** and C.V. Sankarsingh,  
*Mobile Opportunities: Exploring Innovative pathways for Marginalized Communities (A Trinidad and Tobago Perspective)*  
6<sup>th</sup> Pan-Commonwealth Forum on open Learning.  
Kochi, India, November, 2010.

**K.I. Mallalieu**  
*Digital Inclusion and eCitizens*  
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Port of Spain, Trinidad and Tobago, November 2010.

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## Department of Geomatics Engineering & Land Management

**R. Al-Tahir,** Arthur, M. and Davis, D  
*Low cost aerial mapping alternatives for natural disasters in the Caribbean.*  
FIG Working Week.  
Morocco, May 2011

**R. Al-Tahir**  
*Applications of remote sensing in forest monitoring and sustainability.*  
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Trinidad, December 2010

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Trinidad, December 2010

A. Jehu and **Al-Tahir, R.**  
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S. Hosein, **Al-Tahir, R.** and Chadee, D.  
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S. Manickchand and **Al-Tahir, R.**  
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N. Pitamber and **Al-Tahir, R.**  
*A spatial analysis approach to studying mud volcano distribution in Trinidad.*  
URISA 5<sup>th</sup> Caribbean GIS Conference.  
Trinidad, December 2010

**D. Davis,** Ramsahai, I., Higgins, M., Kealy, A., and Al-Tahir, R.  
*Evaluating the quality of GNSS CORS data for seismic monitoring in the South-Eastern Caribbean.*  
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**D. Davis.** Nanlal, C. and Sutherland, M.  
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**E.P. Edwards**  
*Spatial Data Infrastructure to Support Land Administration in Tobago.*  
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V. Grant-Harry, V. and **Edwards, E.P**  
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URISA 5<sup>th</sup> Caribbean GIS Conference.  
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**C. Griffith-Charles**  
*Land Policy and Land Administration in Trinidad and Tobago: The Need for Clear Focus.*  
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Malta, May 2011.

**C. Griffith-Charles and Sutherland, M.**  
*Cadastral Records and the Impact of Sea Level Rise.*  
Land Conference 2011.  
UWI, St. Augustine, April 2011

**C. Griffith-Charles**

*Land Titling and Registration: Options and Impacts.*  
Land Conference 2011. April 2011

**C. Griffith-Charles**

*Voluntary Guidelines for Good Governance in Land Tenure.*

Land Conference 2011.

UWI, St. Augustine, April 2011

**C. Griffith-Charles**

*Good Governance and Natural Resources Tenure in the Caribbean Subregion.*

Regional Central America and Caribbean Consultation Meeting. "FAO Voluntary Guidelines on responsible governance of tenure of land and other natural resources"

Panama City, Panama September 2010.

**R. Jadoo and Opadeyi, J.**

*The Design of a Postal Code System for Trinidad and Tobago Using GIS Concepts.*

6<sup>th</sup> Caribbean URISA Conference. St. Ann's, Trinidad, December 2010.

**M. Mycoo**

*A New Tourism, Green Economy and Climate Change Adaptation: A Case Study of Barbados, 'Challenges of the Independence Experience in Small Developing Countries,'*

Sir Arthur Lewis Institute for Social and Economic Studies (SALISES),

Kingston, Jamaica March, 2011

**M. Mycoo and Sutherland, M.**

*New Approaches to Sustainable Development of Coastal Rural Communities and Economies: Climate Change and Sea Level Rise in Grande Riviere, Trinidad*

'Challenges of the Independence Experience in Small Developing Countries,'

Sir Arthur Lewis Institute for Social and Economic Studies (SALISES),

Kingston, Jamaica March, 2011.

**M. Mycoo and Sutherland,**

*Climate Change and Physical Development Threats, Challenges and Adaptation Responses in Coastal Communities: Grand Riviere, Trinidad*

Sir Arthur Lewis Institute for Social and Economic Studies (SALISES),

Port of Spain, Trinidad, June 2011.

**Mohammed A.**

*Engagement with Haiti in the Post-earthquake period: Illustrated with issues from the Built Environment,*  
Proceedings of Conference on Education for all and the MDGs, International Association of Universities, UNESCO, Paris, December 2010, pp 52-59.

**A . Mohammed**

*Urban Profiling methodologies for Secondary Cities in Haiti.*  
Workshop on the Planning for Regions and Secondary Cities in Haiti organised by UNHabitat/ Ministry of Planning and External Cooperation, Haiti, February 2011.

**A . Mohammed**

*The Need for Simultaneous Planning, Implementation and Municipal Reform in the Reconstruction of Haiti,*  
Caribbean Construction Forum, Trinidad, March 2011.

**J. Opadeyi**

*Benchmarking Disaster Risk Management Tools in the Hemisphere: a look at the BTool*

Encounter of Santa Marta: From theory to Practice. Santa Marta, Colombia. April, 2010.

**J. Opadeyi, Thongs, G., Joseph, D. and Bradshaw, S.**  
*Development of a GIS-Based Flood Risk Model for Caribbean*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad. December. 2010

**J. Opadeyi, Thongs, G., Fouchong, L., Smith, R., Joseph, D., and Bradshaw, S.**

*Development of a GIS-Based Landslide Risk Model for Caribbean*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad, December 2010

**J. Opadeyi, Thongs, G., Fouchong, L., Smith, R., Joseph, D., and Bradshaw, S.**

*Development of a GIS-Based Landslide and Flood Risk Model for Caribbean*

5<sup>th</sup> Annual Caribbean Conference on Comprehensive Disaster Management.

Montego Bay, Jamaica, December 2010.

**J. Opadeyi, Thongs, G., Fouchong, L., Joseph, D., and Bradshaw, S.**

*A Multi-factor Approach to Landslide and Flood Susceptibility Mapping.*

5<sup>th</sup> Annual Caribbean Conference on Comprehensive Disaster Management.

Montego Bay, Jamaica, December 2010.

**J. Opadeyi**, Jadoo, R., and Rajkumar, W.

*Conceptual and Logical Design of a GIS-based Watershed Risk Assessment Application*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad. December 2010

**J. Opadeyi**, Thongs, G., and Williams, A.

*Development of Topographic Information Systems for the Island of Trinidad*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad. December. 2010

**J. Opadeyi**, and Thongs, G.

*Estimating Land Availability for Development Programs in Trinidad*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad. December. 2010

**J. Opadeyi**, and Thongs, G..

*Biophysical Characteristics of Land Cover in Trinidad: 1976-2007*

6<sup>th</sup> Caribbean URISA Conference.

St. Anns, Trinidad. December. 2010

**J. Opadeyi** and **Al-Tahir, R.**

*Satellite Remote Sensing for Climate Change Adaptation Planning and Monitoring: Science for Policy Making.*

UNESCO Ministerial workshop on Climate Change Adaptation in the Caribbean: Science, Ethics and Policies. Basseterre, Saint Kitts and Nevis; March 2011.

**J. Opadeyi** and Jadoo, R.

*Building a Spatial Database for Earthquake Risk Assessment and Management in the Caribbean.* GEM Caribbean

Regional Workshop.

Trinidad, May 2011;

**Ramlal B.** (2011) *Workload Policies for University Staff in a Time of Financial Challenges, in Sustainable Funding of Higher Education in Challenging Times: Papers*

presented at a seminar hosted by the West Indian Group of University Teachers (WIGUT), UWI, St. Augustine, Published Proceedings edited by Shamin Renwick and Lynda Quamina-Aiyejina, WIGUT, 43-47.

**B. Ramlal**

*Developing Data Sharing Policies for the Caribbean Region*

URISA's 5<sup>th</sup> Caribbean GIS Conference,

Port of Spain, Trinidad, December, 2010.

S. Sookram, and **Sutherland, M.**

*Grande Riviere, Trinidad and Tobago: The Vulnerability of a Coastal Community to Sea-level Rise.*

The Sustainable Development of Coastal Communities: Challenges and Solutions

Sir Arthur Lewis Institute of Social and Economic Studies (SALISES),

Trinidad and Tobago, June 2011.

M. Mycoo and **Sutherland, M.**

*Climate Change and Physical Development Threats, Challenges and Adaptation Responses in Coastal Communities: Grande Riviere, Trinidad.*

The Sustainable Development of Coastal Communities: Challenges and Solutions

Sir Arthur Lewis Institute of Social and Economic Studies (SALISES),

Trinidad and Tobago, June 2011

T. Tienaah, Nichols, S., Forbes, D. and **Sutherland, M.**

*Mobilizing Local Knowledge to Bridge Information Gaps in Climate Change Adaptation Planning.* The Sustainable Development of Coastal Communities: Challenges and Solutions

Sir Arthur Lewis Institute of Social and Economic Studies (SALISES),

Trinidad and Tobago, June 2011.

**Sutherland, M.**, *Implementing a Marine Cadastre (or other similar marine information systems).*

Proceedings of the Plenary Session of the 11th South East Asian Survey Congress, Kuala Lumpur, Malaysia, June 2011.

**Sutherland, M.**

*Improving the administration of marine and coastal spaces: The marine cadastre component.*

Proceedings of the International Federation of Surveyors Working Week 2011, Marrakech, Morocco, May 2011.

**Sutherland, M.** and A. Seeram

*Sea level rise modeling in support of socioeconomic impact analysis: Grande Riviere, Trinidad and Tobago.* Proceedings of the International Federation of Surveyors Working Week 2011, Marrakech, Morocco, May 2011.

Davis, D., C. Nanlal, and **Sutherland, M.**

*Towards the development of a methodology for vertical separation models in the Caribbean.* proceedings of the International Federation of Surveyors Working Week 2011, Marrakech, Morocco, May, 2011

C. Griffith-Charles and **Sutherland, M.**

*Cadastral Records and the Impact of Sea Level Rise* Land Conference 2011,

The University of the West Indies, St. Augustine, April 2011.



S. Sookram and **Sutherland, M.**  
*The vulnerability of coastal communities to sea level rise: A case study of Grande Riviere, Trinidad and Tobago*  
SALISES 12th Annual Conference,  
Kingston, Jamaica, March 2011

M. Mycoo and **Sutherland, M.**  
*New approaches to sustainable development of coastal rural communities and economies: Climate change and sea level rise in Grande Riviere, Trinidad*  
SALISES 12th Annual Conference,  
Kingston, Jamaica, March 2011

## Technical Presentations

### Department of Geomatics Engineering & Land Management

Opadeyi, J. and **R. Al-Tahir**, Satellite remote sensing for climate change adaptation planning and monitoring: Science for policy making. The UNESCO workshop on Climate Change Adaptation in the Caribbean: Science, Ethics and Policies. Basseterre, Saint Kitts and Nevis, March 2011.

**Davis, D.**, Applying GNSS and CORS Technology to Land Development: A Cadastral Perspective. Land Conference 2011 – Land Ownership in Trinidad and Tobago: Issues and Challenges, Institute of Surveyors of Trinidad and Tobago, UWI St. Augustine, April 2011.

**Griffith-Charles, C.**, The Justifications to the Land Surveyors Legislation Amendments, CPD Meeting of the Institute of Surveyors of Trinidad and Tobago (ISTT). October 2010.

**Mycoo, M.** Experience with the establishment of research networks with partners in the North and South and the promotion of demand-driven research. Innovative approaches and partnerships to advance the UN Habitat Partnership University Initiative, London, UK, May 2011.

**Mycoo, M.** Association of Professional Engineers of Trinidad and Tobago . Presented on Disasters by Design: A Disaster Preparedness Plan for Flooding in Port of Spain Trinidad, Trinidad, January 2011.

**Opadeyi, J.**, R. Jadoo, and G. Thongs Integrated GPS/GIS-Based Flood Emergency Response Protocol”. Technical paper presentation made to the Department of Emergency Management, The British Virgin Islands; March 2011.

**Opadeyi, J.**, R. Jadoo, and G. Thongs Integrated GPS/GIS-Based Flood Emergency Response Protocol, Technical paper presentation made to the Department of Emergency Management, Anguilla, March 2011.

**Opadeyi, J.**, R. Jadoo, and G. Thongs GIS Applications Development in Support of Environmental Information Management and Advisory System, Paper presented at the GEF Full Size Project Demonstrating the Implementation of a Sustainable Island Resource Management Mechanism (SIRMM) Workshop; Environment Division, St. John’s, Antigua and Barbuda; March 2011.

**Opadeyi, J.** Development of a Community-based Disaster Risk Management Benchmarking Tool [Community\_BTool], paper presented at the OECS Interim Workshop on Mainstreaming Disaster Risk Management in OECS States. Anguilla, April 2011.

**Opadeyi, J.** Methodology for Vulnerability Assessment and Quantitative Risk Assessment in the Caribbean, Presentation made at the R3i Inception workshop. Aruba, May 2011

**Opadeyi, J.** The Design and Development of Postal Code System for Trinidad and Tobago. Paper presented at the TTPost National Stakeholders’ Consultation on Postal Code and Addressing Systems for Trinidad and Tobago. Crowne Plaza, Trinidad, May 2011.

**Opadeyi, J.** Implementation of GIS in Tobago Schools, paper presented at the School Principals’ Conference, Vanguard Hotel, Tobago, May 2011.

**Opadeyi, J.** The Role of Higher Education in Sustaining National Water Information Systems in the Caribbean, paper presented at the IWCAM/CEHI Water Information Systems Experts Workshop. St. Lucia, June 2011.

**Opadeyi, J.** Climate Change Science, Forecasting, and Foresighting in the Caribbean, paper presented at the UNESCO Regional Workshop on Climate Change Education for Sustainable Development in the Caribbean. Tortola, June 2011.

**Ramlal, B.** GIS Development in Trinidad and Tobago: Current Status, Invited Panel Presentation at Workshop on Maximizing Geographic Information Systems - Local Application, Caribbean Opportunities, Ministry of Local Government, GORTT and the Caribbean Telecommunications Union. Kent House, Maraval, May 2011.



**Ramlal, B.** National Spatial Data Infrastructure in Trinidad and Tobago: Current Status, Invited Presentation at Seminar hosted by the Lands and Surveys Division and the Latin American Development Bank on the GEOSUR Portal, Department of Geomatics Engineering and Land Management, UWI, St. Augustine, April 2011.

**Ramlal, B.** The Role of Spatial Information in Disaster Planning for Ports of Spain, Invited Presentation at Association of Professional Engineers of Trinidad and Tobago's seminar on A Disaster Preparedness Plan for Port of Spain, Bureau of Standards, Macoya, January 2011.

**Ramlal, B.** The Future of GIS in Trinidad and Tobago, Invited presentation at a Roundtable discussion at the URISA's Caribbean GIS Conference, Cascadia Hotel, Port of Spain, December 2010.

**Sutherland, M.** Implementing a Marine Cadastre (or other similar marine information systems), special invited paper for presentation at the Plenary Session of the 11th South East Asian Survey Congress, Kuala Lumpur, Malaysia, June 2011.

**Sutherland, M.** Global Marine Spatial Data Infrastructure: Towards its realisation, e-Navigation Workshop on Creating a Framework for Data Access and Information Services under the Scope of SOLAS, Monaco, November 2010.

# Faculty of Humanities & Education

## Journal Publications

**Abdul-Majied, S.** (2010) "Don't treat me like I'm bad!": Social competence and teacher roles in young children's social development at three primary schools in Trinidad. *Caribbean Curriculum*, 17, 85-114

**Barrow, D.** (2011) Professional education development in the context of Tobago: Teachers' concerns with change. *Caribbean Curriculum*, 18, 43-67.

**Braithwaite, B., Kathy-Ann Drayton and Alicia Lamb** (2011). The History of Deaf Language and Education in Trinidad and Tobago since 1943. *History in Action*, Vol. 2:1 <http://www.mainlib.uwi.tt/epubs/historyaction/papers/braithwaitedraytonlamb.pdf>

**Boufof-Bastick, B.** (2010) A Culturometric analysis of fear of crime in Trinidad. *Caribbean Journal of Criminology and Public Safety*, Vol. 14 (1 -2).

**Boufof-Bastick, B.** (2010) A Culturometric exploration of intrusions of globalization on transnational identities: The Jamaican example. *Journal of Identity and Migration Studies*, Vol. 4 (1), 91-109

**Burke, S.** (2010) Promoting Creative Industries: The Trinidad and Tobago Experience. *UNDP Poverty and Social Policy*, Vol.XI

**Chinnien, S.** (2011) La déconstruction de l'Histoire dans *Le Passage du Milieu* de Guy Deslauriers", *Interculturel* N 15, Lecce, Italy, pp. 227- 252

**Dedovets, Z.** (2011) Increasing learner's level of motivation in mathematics education through the use of uncompleted situations. *The Literacy Information and Computer Education Journal (LICEJ)*, 2, 2, ISSN: 2040 2589, UK.

**De Lisle, J, Joseph-Hyland, S., & Bowrin, S.** (2011). "A little leaven corrupteth the whole lump": Academic cheating as a hindrance to achieving quality academic outcomes in higher education. *Caribbean Teaching Scholar*, Vol. 1(1), 5-19.

**De Lisle, J.** (2011). The benefits and challenges of mixing methodologies and methods: Lessons learnt from implementing qualitatively-led mixed methods research designs in Trinidad and Tobago. *Caribbean Curriculum*, Vol. 18, 87-120.

**Fergus, C.** (2010) From Prophecy to Policy: Marcus Garvey and the Evolution of Pan-African Citizenship. *The Global South*, Special Issue: The Caribbean and Globalization, Vol. 4.2. pp. 29-48

**Fergus, C.** (2011) The Jamaican Historical Review. *Special Issue: Law and Order in Nineteenth Century Jamaica and Trinidad and Tobago*, Vol. XXV

**Fergus, C.** (2011) Abolitionism and Imperialism in Britain, Africa, and the Atlantic. Derek Peterson (ed.). *New West Indian Guide* vol. 86-3 & 4, Athens OH: Ohio University Press

**Figuera, R.** (2010) Convention, Context and Critical Discourse Analysis: 'Jim the Boatman' (1846) and the Early Fiction of Trinidad. *New West Indian Guide*, Vol. 84: 3&4 <http://www.mainlib.uwi.tt/epubs/historyaction/index.htm>

**Lyndersay, D.** (2011) Mirrors of Society: Games Nigerian Children Played and their links within the Caribbean. *Journal of Black and African Arts & Civilization*. Vol. V, No. 1.

**Maharaj-Sharma, R.** (2010) Young people's views on the importance of conserving the environment. *Caribbean Curriculum*, 17, 1-15.

**Maharaj-Sharma, R.** (2011) A comparative study of the impact of students' feelings regarding the use of nuclear energy. *Science Education International*, Vol 22. No.1, p18-30, Mar 2011.

**Maharaj- Sharma, R.** (2011) What are students' ideas about the concept of an electric current? A primary school perspective. *Caribbean Curriculum*, 18, 69-85.

**Matthews, G.** (2011) Unrepentant Eurocentric Historiography in the Movie *Amazing Grace* of Freedom. *History in Action* the online journal of the History Department, St Augustine Campus, the University of the West Indies. Ed. Basil Reid, Second Issue.

**Matthews, G.** (2010) Part II of Unrepentant Eurocentric Historiography in the movie *Amazing Grace* of Freedom. Published at <http://engagemagazine.com/Magazine-Content/Articles/December-10/From-America-to-Trinidad-and-Tobago--Beginnings-of.aspx> December 1

**Matthews, G.** (2010) Part III of Unrepentant Eurocentric Historiography in the Movie *Amazing Grace* of Freedom. Published at: <http://engagemagazine.com/Magazine-Content/Articles/December-10/From-America-to-Trinidad-and-Tobago--Beginning-%281%29.aspx>.

**Matthews, G.** (2010) From America to Trinidad and Tobago: Beginnings of the Church Part I of three part series. Published online by *Engage Magazine A Global Mission Magazine of the Church of the Nazarene*, Germany. Managing Editor Gina Pottenger. <http://engagemagazine.com/Magazine-Content/Articles/November-2010/Trinidad-and-Tobago--Beginnings.aspx>

**Meir, C.** (September 2010) 'The Heads and Tails of the Kingdom': *Mrs. Brown* and Devolutionary Scotland". *The International Review of Scottish Studies*, Vol. 35, pp. 123-148.

**Mideros, D. and Roberts, N.** (2010) "Post it notes": Students' perceptions on assessment and reflective learning in the foreign language learning process using wikis. *Journal of Education, Informatics and Cybernetics*, Vol. 2.3: 9-15.

**Molina, G.** (2010) El reinicio de la historia y el siguiente hombre. *Revista Riff-Raff*, 43, pp. 29-35. Zaragoza (Spain).

**Molina, G.** (2010) Epilírica. *Revista Caja Negra* 8. Universidad Autónoma de Puebla (Mexico).

**Regis, F.** (March 2011) The *Dougla* in Trinidad's Consciousness. *History in Action, Online Journal of the Department of History St. Augustine*, Vol. <http://www.mainlib.uwi.tt/epubs/historyaction/papers/regist.pdf>

**Roberts, N. and Mideros, D.** (2010) "Post it notes": Students' perceptions on assessment and reflective learning in the foreign language learning process using wikis. *Journal of Education, Informatics and Cybernetics*, Vol. 2.3: 9-15.

**Singh, S.** (2010) The Ramayana in Trinidad: A Socio-Historical Perspective. *The Journal of Caribbean History*. Vol. 44:2: 201-223

**Teelucksingh, J.** (2010) History of the Church of the Nazarene in Trinidad and Tobago. *History in Action, Online Journal of the Department of History St. Augustine* [<http://www.mainlib.uwi.tt/epubs/historyaction/index.htm>]

**Teelucksingh, J.** (2010) Eric Williams: The Myth and the Man. *Global South SEPHIS e-magazine*, Vol. 6 No. 1 pp. 63-65

**Teelucksingh, J.** (Fall 2010) Beyond Blackness: CLR James the Working Class Messiah. *CLR James Journal*, Vol. 16, no 1, 67-82

**Teelucksingh, J.** (Fall 2010) Charisma and Controversy in Jamaica's Dancehall Culture. *Global South SEPHIS e-magazine*, Vol 7, no. 3, 37-49

**Toussaint, M.** (March 2011) A Review of Selwyn Ryan, *Eric Williams: The Myth and the Man*, 2009. *History in Action, Online Journal of the Department of History St. Augustine*. ISSN 2221-7886 Vol. 2 No. 1

**Toussaint, M.** (August 2010) Political Independence in the Caribbean: Some Reflections. *The R-Evolutionary*, Vol. 1 Issue 8 Independence Day Edition.

**Watson, D.** (December 2010) Teaching Teachers to Think': Reflective Journaling as a Strategy To Enhance Students' Understanding And Practice Of Academic Writing. *Journal of College Teaching and Learning*, Vol 7, Number 12, (11-18). ISSN: 1544-0389 (Print), ISSN: 2157-894X (Online).

**Yamin-Ali, J.** (2010) "Context" - The magic of foreign Language teaching. *Caribbean Curriculum*, Vol. 17, 17-32

## Books

**Aiyejina, F.** (2010) Ed. with Judy Stone *Moving Right Along: Caribbean Stories in Honour of John Cropper*. Caroni: Lexicon Trinidad Limited.

**Boufof-Bastick, B.** (2010) *Language Education and Policy in Fiji: A Culturometric Investigation of Ethnic Values. Volume Two - How Culture Determines Language Attainment*. Saarbrücken, Germany: Lambert Academic Publishing. p508.

**Boufof-Bastick, B.** (2010) *Language Education and Policy in Fiji: A Culturometric Investigation of Ethnic Values. Volume One - Discovering the Cultures of Fiji*. Saarbrücken, Germany: Lambert Academic Publishing. p526.

**Brereton, B.** (2010) *From Imperial College to University if the West Indies: A History of the St. Augustine Campus, Trinidad and Tobago*. Ian Randle. p147.

**Burke, S.** (2010) *Policing the Transnational: Cultural Policy Development in the Anglophone Caribbean*. Saarbrücken, Germany: Lambert Academic Publishing.

**Farquharson, J.T.** (2011) Ed. with Lars Hinrichs *Variation in the Caribbean: From Creole Continua to Individual Agency*. Amsterdam: John Benjamins Publishing Company.

**Pouchet, A.M.** (2010) *The literary portrayal of Juan Vicente Gómez*. Saarbrücken, Germany: Lambert Academic Publishing.

**Rahim, J.** (2011) Ed. with Barbara Lalla *Created in the West Indies: Caribbean Perspectives on V.S. Naipaul*. Jamaica: Ian Randle Publishers.

**Rahim, J.** (2011) *Redemption Rain: Poems*. Toronto. TSAR Press.

**Reid, B.** (2010) *Archaeology, GIS and Cultural Resource Management in Trinidad*. Saarbrücken, Germany: Lambert Academic Publishing.

**Teelucksingh, J.** (2010) *The Lost Gospel: Blacks and Christianity in North America*. Cambridge Scholars Publishing.

**Thomas, N.** (2011) *The Intellectual Roots of Slavery in the British West Indies*. Saarbrücken, Germany: Lambert Academic Publishing. p196

**Youssef, V.** (2011) *Finding Self in the Transition from East to West, Bindi: the Multifaceted Lives of Indo-Caribbean Women*. Mona, Jamaica: UWI Press

## Refereed Publications: Chapters in Books

**Ali, T.** (2010) (Re) Visiting Dominica's Past; (Ad) Venturing into her Future: Interrogating Identity Formation in Marie-Elena John's Unburnable. In *A Sea of Heteroglossia: Pluri-Lingualism, Pluri-Culturalism, and Pluri-Identification in the Caribbean*. Nicholas Faraclas, Ronald Severing, Christa Weijer, Elisabeth Ehteld, Marsha Hinds-Layne and Elena Lawton de Torruella Eds. Curacao: Institute for Language Planning of Curacao and University of the Netherlands Antilles

**Antoine-Dunne, J.** (2011) Keeping an Eye on Naipaul. Naipaul and the Play of the Visual. in *Created in the West Indies: Caribbean Perspectives on V. S. Naipaul*. Jennifer Rahim and Barbara Lalla Eds. Kingston and Miami: Ian Randle

**Antoine-Dunne, J.** (2011) The Divisions that Bind: Thinking through Race in Anglophone Caribbean Literature. In *The Routledge Companion to Anglophone Caribbean Literature*. Michael Bucknor and Alison Donnell Eds. London: Routledge

**Antoine-Dunne, J.** (2011) 'Look we Movin Now': The Interface between Film and Literature. In *The Routledge Companion to Anglophone Caribbean Literature*. Michael Bucknor and Alison Donnell Eds. London: Routledge

**Boufof-Bastick, B.** (2011) A Culturometric assessment of affective language attainments of modern language undergraduates in Trinidad. In *Language, Society and Culture*. ?

**Boufof-Bastick, B.** (2010) Using comparisons within language examination results to validate language teaching assumptions. In *Studies about Language*. No. 17

**Boufof-Bastick, B.** (2010) Using Culturometrics to assess undergraduates' levels of foreign language enculturation: A wake-up call. In *Humanising Language Teaching*. ?

**De Lisle, J., T. Seemungal, S. Teelucksingh, K. Mungrue, & S. Williams** (2011) Are female students better at breaking bad news? Implications for the design of communication skills training. In *Health Communication in the Caribbean and Beyond: A Reader*. Godfrey A. Steele Ed. Jamaica: UWI Press

**Farquharson, J.** and L. Hinrichs Eds. (2011) Introduction. In *Variation in the Caribbean: From Creole Continua to Individual Agency*. Amsterdam: John Benjamins Publishing Company

**Fergus, C.** (2011) Emancipation and 'Military Necessity' during the Haitian Revolution: challenging the hegemonic paradigms of slavery and freedom. In *Free at Last?: Reflections on Freedom and the Abolition of the British Transatlantic Slave Trade*. Amar Wahab and Cecily Jones, eds. UK: Cambridge Scholars Publisher.

**Fowler, C.J.H., J. Van Helvert, & L. O'Neill** (2011). Methods for living labs. In *Handbook of emergent technologies in social research*. S. Biber Ed. London: OUP

**Franco, H.** (2010) Tradition Reaffirming Itself in New Forms – An Overview of Trinidad and Tobago Folk Dances. In *Making Caribbean Dance: continuity and creativity in island cultures*. Ed. Susanna Sloat, University Press of Florida, Gainesville, 2010, p.297

**Jackson, E.** (2011) Gender and Space in Postcolonial Fiction: South Asian Novelists Re-Imagining Women's Spatial Boundaries. In *Postcolonial Spaces: The Politics of Place in Contemporary Culture*. Andrew Teverson and Sara Upstone Eds. Basingstoke and New York: Palgrave Macmillan

**Mohammed, J.** (2010) Learning experiences, learning materials: Textual relationships. In *Peace, democratization and reconciliation in textbooks and educational media*. M. Horsley & J. Mc Call Eds. Vestfold, Norway: IARTEM

**Morgan, P.** (2011) Beyond Fragile Homes: Indo-Trinidadian Women Constructing Habitable Narratives. In *Bindi: The Multifaceted Lives of Indo-Caribbean Women*. Rosanne Kanhai Ed. Mona: The University of the West Press.

**Morgan, P.** (2011) When the Rainbow is not Enough: Using African American Literature to Demystify Race in a Caribbean Tertiary Environment. In *Teaching African American Women's Writing*. Gina Whisker Ed. London: Palgrave Macmillan Press.

**Rahim, J.** (2011) The Shadow of Hanuman: V.S. Naipaul and the 'Unhomely' House of Fiction. In *Created in the West Indies: Caribbean Perspectives on V.S. Naipaul*. Jennifer Rahim and Barbara Lalla Eds. Jamaica: Ian Randle Publishers.

**Singh, S.** (2011) Women and the Ramayana Tradition in Trinidad. In *Bindi: The Multifaceted Lives of Indo-Caribbean Women*. Roseanne Kanhai Ed. St. Augustine: The University of the West Indies Press.

**Teelucksingh, J.** (2010) C.L.R. James (1901-1989): The Black Jacobin. In *The Human Tradition in the Black Atlantic World*. Karen and Racine and G. Mamigonian Eds. Maryland: Rowman and Littlefield Publishers.

**Toussaint, M.** (2011) Engendering Nationhood: Women in Social and Political Activism in 20<sup>th</sup> Century Trinidad and Tobago. In *Engendering Caribbean History Cross Cultural Perspectives. A Reader*. Verene Shepherd Ed. Kingston: Ian Randle Publishers.

**Youssef, V., Harricharan, M. and Williams, S.** (2011) The need to teach medical students non-verbal skills with multicultural sensitivity. In *Health Communication in the Caribbean and Beyond: A Reader*. Godfrey Steele Ed. Jamaica: UWI Press.

## Conference Presentations

### S. Abdul-Majied

*A spotlight on social competence development: Teaching strategies and classroom experiences provided for young children in Trinidad*

Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

### F. Aiyejina

*In the Beginning: Earl Lovelace in the Frog Hopper*  
11<sup>th</sup> International Conference on Caribbean Literature  
Trinidad and Tobago, November 2010

### T. Ali

*White Man vs. Black Man: Exploring Euro-Centric Sexuality in David Dabydeen's Turner and its Historical impact on Lower Strata Afro-Caribbean Masculinities*  
13<sup>th</sup> Annual Eastern Caribbean Island Cultures Conference "The Islands in Between": Language, Literature and Culture of the Eastern Caribbean  
Guyana, November 2010

### T. Ali

*Androcentrism vs. Androgyny: Taming the Dragon in Earl Lovelace's The Dragon Can't Dance*  
11<sup>th</sup> International Conference on Caribbean Literature (ICCL)  
Trinidad, November 2010

### J. Antoine-Dunne

*Reconfiguring Identity. "Ghosts and Prophets at the Crossroads"*  
New Geographies: Studies in Postcolonialty and Globalization Conference  
UWI, St Augustine, March 2011

### J. Antoine-Dunne

*Caribbean Film and Education*  
Caribbean Studies Association Conference  
Curacao, May 2011

### J. Antoine-Dunne

*Introduction to Ava and Gabriel, film by Felix de Rooy and Norman de Palm*  
Caribbean Studies Association Conference  
Curacao, May 2011

### J. Antoine-Dunne

*Caribbean Modernism*  
Afromodernisms 2 Conference  
University of Liverpool, July 2011



**B. Brereton**

*All ah we is not one: Afro-centric History in a Pluralist Nation.*

Annual Conference of Society for Caribbean Studies  
Southampton, UK, July 2010

**B. Brereton**

*Ethnic Histories: The Indocentric Narrative of Trinidad's History*

International Conference on the Global South Asian  
Diaspora  
St. Augustine, Trinidad, June, 2011

**B. Brereton**

*Jubilees: How Trinidad remembered Victoria's Jubilees, the Jubilee of Emancipation and the Centenary of British Rule*

35<sup>th</sup> Conference of the Society for Caribbean Studies  
Liverpool, UK, June/July 2011

**B. Boufoyo-Bastick**

*Checking the assumption of test measures as fair predictors of language attainment outcome*

3<sup>rd</sup> International Conference on Education, Economy  
and Society  
Paris, August, 2011

**B. Boufoyo-Bastick**

*Forging Progressive Democracy in Multi-cultural Developing Countries: A Culturometric Investigation of Trinidad Socio-educational Policies*

3<sup>rd</sup> International Conference on Education, Economy  
and Society  
Paris, August, 2011

**B. Boufoyo-Bastick**

*Culturometric comparisons of National and Transnational identities evaluating policies for national unity and ethnic equities in developing multicultural countries: A case of Trinidad*

Conference on New Geographies: Studies in Post-  
Coloniality and Globalization  
UWI St Augustine March 2011

**N. Bruni**

*Calypso de Tatiana Lobo: un análisis afrorrealista en la literatura de Costa Rica*

Sexto Congreso Internacional. Literatura: Memoria  
e Imaginación de Latinoamérica y el Caribe. CIALC,  
UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the  
Pan-African Studies Department  
University of Louisville,  
UWI, St. Augustine, Trinidad, August 2010

**S. Burke**

*Cultural Policy in the age of Multilateral Trade Agreements: A Caribbean Perspective*

The International Conference on  
Cultural Policy Research (ICCPR)  
Finland, August 2010

**S. Burke**

Keynote Address: *The role of arts education on development*

The Caribbean Educative Arts Conference

Barbados, October 2010

**S. Burke**

*Transforming attitudes, reframing actions: a pathway to cultural sector development*

The Conference on the Economy (COTE)

UWI, St Augustine, October 2010

**M. Cain & Phillip-Peters, S.**

*An exploration of students' experiences in an online programme*

Schools of Education Biennial Conference

Ocho Rios, Jamaica, June 15-17, 2011

**H. Cateau**

*The Limits of Control - Planters, Attorneys and Enslaved Workers on British West Indian Plantations*

Conference "Re-Thinking the Fall of the Planer Class"

University of Southampton, 2011

**S. Chinien**

*The diverse figures of the narrative voice in Chamoiseau's works*

UWI, Cave Hill Campus, Barbados, October 2010

**S. Chinien**

*The dynamics of the narrative voice in Chamoiseau's literary and cinematographic works*

11<sup>th</sup> International Conference on Caribbean Literature

Trinidad-and-Tobago, November 2010

**S. Chinien**

*La déconstruction de l'Histoire chez Guy Deslauriers.*

New Geographies Conference, Department of Liberal Arts  
Trinidad and Tobago, March 2011

**S. Chinien**

*La déconstruction de la cartographie de l'imaginaire chez Chamoiseau*

Caribbean Studies Association Conference

Willemstad, Curaçao, May 2011

**L. Cowie**

*Aspectos socioculturales de la migración intercaribeña*

2<sup>do</sup> Coloquio Migración y Oralidad

Chilpancingo, Guerrero, México, May 2010



**L. Cowie**

*Salud y prostitución en Según la costumbre (2003) de Gonzalo Mallarino Flórez*  
Sexto Congreso Internacional. Literatura: Memoria e Imaginación de Latinoamérica y el Caribe. CIALC, UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the Pan-African Studies Department, University of Louisville  
UWI, St. Augustine, Trinidad, August 2010

**K. Crichlow**

*Figures Trapped at the Forest's Edge: the art and imagination of Alfred Codallo*  
Society for Caribbean Studies 34th Annual Conference  
Southampton University, UK, July 2010

**J. De Lisle**

*Challenges and Benefits of utilizing a multiphase mixed method design to evaluate the continuous assessment programme in the Republic of Trinidad and Tobago* [Methodology]  
Seventh Mixed Methods International conference  
University of Leeds, June 2011

**J. De Lisle**

*Judging inequality in a national education system: Analyzing Data from national and international assessments for the republic of Trinidad and Tobago*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**J. De Lisle**

*Secondary school entrance examinations in the Caribbean: Legacy, policy, and practices within an era of seamless education*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**J. De Lisle**

*Challenges and Benefits of utilizing a multiphase mixed method design to evaluate the continuous assessment programme in the Republic of Trinidad and Tobago* [process]  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**J. De Lisle**

*Does stratification help explain inequalities in educational achievement for Trinidad and Tobago: Lessons from the PIRLS 2006 and PISA 2009 international assessments*  
Education Conference of the UWI Department of Behavioural Sciences, "Maximizing the Role of Education in a Changing Society"  
UWI, St Augustine, January 2011

**J. De Lisle**

*Poverty concentration and underachievement in urban and rural primary schools in Trinidad and Tobago: A mixed methods, multi-site case study.*  
Paper delivered at the Education Conference of the UWI Department of Behavioural Sciences, "Maximizing the Role of Education in a Changing Society",  
UWI, St Augustine, January 2011

**J. De Lisle**

*Using a mixed methods research design to deconstruct the nature of low academic performance in primary schools facing exceptional challenge within the Republic of Trinidad and Tobago*  
24<sup>th</sup> ISCEI Conference,  
Limassol, Cyprus, January 2011

**J. De Lisle**

*In search of evidence-based policy and best practice: Addressing gender differences in schooling within the English-speaking Caribbean*  
24<sup>th</sup> ISCEI Conference,  
Limassol, Cyprus, January 2011

**J. De Lisle**

*Data-driven decision-making as a tool in decentralization: Empowering education districts and schools in Trinidad and Tobago through enhanced data use*  
24<sup>th</sup> ISCEI Conference  
Limassol, Cyprus, January 2011

**J. De Lisle, Joseph-Hyland, S., & Bowrin-Williams, C. (2010).**

*"A little leaven corrupteth the whole lump": Academic cheating as a hindrance to achieving quality academic outcomes in higher education*  
CANQATE International Conference, "Continuously enhancing the quality of higher education for global competitiveness"  
Port of Spain, Trinidad, November 2010

**J. De Lisle**

*Ensuring quality in the teaching profession in the context of cross-border higher education service providers*  
CANQATE International Conference "Continuously enhancing the quality of higher education for global competitiveness"  
Port of Spain, Trinidad, November 2010

**R. Diago**

*Papel de la memoria en algunas investigaciones científicas sobre Latinoamérica y el Caribe. Una aproximación.* Sexto Congreso Internacional. Literatura: Memoria e Imaginación de Latinoamérica y el Caribe. CIALC, UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the Pan-African Studies Department, University of Louisville  
UWI, St. Augustine, Trinidad, August 2010

**J. Farquharson**

*Monolingual Gods and Schizophrenic Worshippers: Deconstructing Linguistic Hegemony in Jamaican Religion*  
New Geographies: Studies in Post-coloniality and Globalisation  
UWI, St. Augustine, Trinidad, August 2010

**J. Farquharson**

*Maroon Language, History, and Language History*  
Third International Maroon Conference  
Portland, Jamaica, June 2011

**J. Ferreira**

*De John Jacob Thomas (1869) à aujourd'hui (2011): L'archivage et la préservation de l'histoire littéraire du créole à base lexicale française de la Trinité.*  
Colloque International on Patrimonialisation et Développement dans la Caraïbe et les Amériques  
Cayenne, March 2011

**J. George James, F., Jameson, M., Williams, V., & Ryan, M.**

*Empowering parents to enhance their children's school performance: A Trinidad and Tobago pilot study*  
Schools of Education Biennial Conference,  
Ocho Rios, Jamaica, June 2011

J. Fournillier, **George, J.**, McLean, C. A.  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

F. James, **George, J.**, & Herbert, S.  
*A research led evaluation to enhance the preparation of school leaders to deliver education for the public good*  
CCEAM SYMPOSIUM entitled Educational leadership for the public good: Theory and praxis AERA 2011  
New Orleans, USA, April 2011

**R. Gibbons**

Feature speaker: *Challenges of Caribbean Arts Education*  
2nd Caribbean Arts Education Festival  
Barbados, October 2010

**R. Gibbons**

*Caribbean Roots/Routes*  
3rd Mercado Cultural  
Cartagena, Colombia, December 2010

**R. Gibbons**

Keynote paper on *Ritualizing Carnival Violence* –  
Graduate Conference *the Gayelle*  
University of Puerto Rico, April 2010

**S. Herbert & Pierre, P.**

*Finding the culture space in the education classroom*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

Ali, S., Augustin, D., **Herbert, S.**, Phillip-Peters, S., Yamin-Ali, J.

*Is anyone listening? Stakeholders' perspectives on the in-service Diploma in Education programme at the UWI St. Augustine Campus*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**E. Jackson**

*Transcending the Politics of 'Where You're From': Postcoloniality, Cosmopolitanism and Globalization in Jhumpa Lahiri's Interpreter of Maladies and Andrea Levy's Fruit of the Lemon*  
New Geographies: Studies in Postcoloniality and Globalization conference  
UWI, St Augustine, March 2011

**F. James, George, J., & Herbert, S.**

*A research led evaluation to enhance the preparation of school leaders to deliver education for the public good*  
CCEAM SYMPOSIUM entitled Educational leadership for the public good: Theory and praxis AERA 2011  
New Orleans, USA, April, 2011

J. George James, F., **Jameson M.**, Williams, V., & Ryan, M.  
*Empowering parents to enhance their children's school performance: A Trinidad and Tobago pilot study*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**M. Jameson**

*Are we being served? Meeting the needs of employers in the tourism industry*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**C. Lal**

*Impact of Globalisation on Literature*  
Maple Leaf Writers' Foundation of Edmonton  
Edmonton, Canada, May 2011

**C. Lal**

*Evolution of New Thought in Contemporary Punjabi Poetry*  
International Punjabi Literature Academy  
San Francisco, USA, May 2011

**S. Lochan**

*An exploration of the experiences of beginning to teach of some teachers in the Diploma in Education programme at the School of Education, UWI, St. Augustine*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**D. Lyndersay**

*Transformative Art: the experience of March to Caroni*  
Caribbean Educative Arts Festival  
Barbados, October 2010

**G. Matthews**

*Sex Across the Colour Line: White females and Non White Males in the West Indies in the pre-emancipation period*  
43<sup>rd</sup> Annual Conference of the Association of Caribbean Historians  
Puerto Rico, May 2011

**C. Meir**

*Ismail Merchant, Harry Alan Towers and Post-Imperial 'British' Cinema*  
Accounting for Creativity: The Film Producer in British Cinema conference  
Bristol, UK, April 2011

**C. Meir**

*Towards a Critical Typology of Caribbean Co-Production*  
Conference on New Geographies: Studies in Post-Coloniality and Globalization  
UWI, St Augustine, March 2011

**C. Meir**

*Transnational Co-Production in the Caribbean: Ismail Merchant's The Mystic Masseur as Commonwealth Pudding*  
Islands in Between Conference  
Georgetown, Guyana, November 2010

**J. Mohammed**

*Reforming the foundations: Building community*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

**G. Molina**

*El humor como arma subversiva en la poesía de Roque Dalton*  
XII Congreso de la SOLAR (Sociedad Latinoamericana de Estudios sobre Latinoamérica y el Caribe)  
Universidad Nacional de Costa Rica. November, 2010

**P. Morgan**

*Indigenous Constructs of Carib-being and Becoming*  
Conference on New Geographies: Studies in Post-Coloniality and Globalization  
UWI, St Augustine, March 2011

**L. Noel**

*Promoting Creative Industries Sector Workshop*  
International Trade Centre and Expoartesania de Colombia  
Colombia, September 2010

**J. Ovid**

*Voces subversivas femeninas en Por supuesto de Ignacio Retes*  
Sexto Congreso Internacional. Literatura: Memoria e Imaginación de Latinoamérica y el Caribe. CIALC, UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the Pan-African Studies Department, University of Louisville  
UWI, St. Augustine, August 2010

Ali, S., Augustin, D., Herbert, S., **Phillip-Peters, S.**, Yamin-Ali, J.

*Is anyone listening? Stakeholders' perspectives on the Diploma in Education (2004-2009) programme*  
Schools of Education Biennial Conference  
Ocho Rios, Jamaica, June 2011

Herbert, S., & **Pierre, P.**

*Finding the culture space in the education classroom*  
Schools of Education Biennial Conference  
Mona, Sunset Jamaica Grande Resort and Spa, Ocho Rios, Jamaica, June 15-17, 2011

**Pouchet A.**

*Huérfanos de lo urbano*  
IV Congreso Internacional  
Universidad de Puerto Rico, Arrecibo, November 2010

**Pouchet A.**

*Lo desafiante de los cuentos de Mario Guevara Paredes*  
Sexto Congreso Internacional. Literatura: Memoria e Imaginación de Latinoamérica y el Caribe. CIALC, UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the Pan-African Studies Department, University of Louisville  
UWI, St. Augustine, August 2010

**J. Rahim**

*'I Have Drawn a Line through Me': the Father Figure in Contemporary Caribbean Fiction*  
13<sup>th</sup> Annual "Islands-In-Between" Conference  
Georgetown, Guyana, November, 2010

**J. Rahim**

*Postcolonialism at the Crossroads: Re-routing to Annancy*  
New Geographies: Studies in Postcoloniality and  
Globalization International Conference  
UWI, St. Augustine, March 2011

**G. Rampaul**

*Sam Selvon's West Indian London*  
London City, London Studies Conference,  
London, UK, July 2011

**G. Rampaul**

*An Island is a World?: Can/Should Caribbean Literature  
be Read as World Literature?*  
1<sup>st</sup> Annual Conference on The Rise of World Literature  
Beijing, June 2011

**G. Rampaul**

*'Black Skin, White Mas': The Politics of Playing Britannia  
in Sam Selvon's Moses Migrating*  
The Islands in Between Conference  
Guyana, November 2010

**G. Rampaul**

*Crossroads: Appropriations of Shakespeare in Davlin  
Thomas's Lear Ananci and Hamlet Eshu*  
3<sup>rd</sup> Annual International Conference on Philology,  
Literatures and Linguistics, Athens Institute for  
Education and Research  
Greece, July, 2010

**L. Regis**

*The Badjohn in the Fiction of Earl Lovelace*  
International Conference on Caribbean Literature  
Port of Spain, November 2010

**L. Regis**

*From Kambule to Carnival*  
Unity in Diversity International Conference, University  
of Szczecin  
Poland, October 2010

**L. Regis**

*The 1970 Black Power Revolution in the Calypso*  
Black Power Conference  
UWI, St Augustine, September 2010

**N. Roberts**

*Postmodern Education: Teaching Literature in a Foreign  
Language*  
International Online Language Conference (IOLC 2010)  
(ONLINE), September, 2010

**N. Roberts**

*Queering Race: Analysing Gender Identity in Sirena  
Selena vestida de pena by Mayra Santos Febres*  
New Geographies in Postcoloniality and Globalisation  
Conference  
UWI, St. Augustine, Trinidad, March 2011

**K. Sanderson-Cole**

*The Creolization of Form: Popular Romance and Cultural  
Identity in Gloria Naylor's Mama Day*  
Unity in Diversity International Conference on the  
Niche Areas in Commonwealth Linguistics, Literature  
and Culture  
University of Szczecin, Poland, October 2010

**K. Sanderson-Cole**

*Aligning Content and Intent: Revamping Tertiary Level  
English Language Foundation Courses- English for  
Academic Purposes- A Case Study*  
ICERI 2010 International Conference of Education  
Research and Innovation  
Madrid, Spain, November 2010

**J. Sánchez**

*El Dragón podría danzar: la traducción del continuum  
oralidad-escritura en la literatura caribeña*  
11th International Conference on Caribbean Literature  
Trinidad & Tobago, November 2010

**J. Sánchez**

*Reconstrucción dialectal: la traducción de la oralidad de  
Earl Lovelace en 'A Brief Conversion*  
Sexto Congreso Internacional Literatura: Memoria  
e Imaginación de Latinoamérica y el Caribe (por los  
derroteros de la oralidad y la escritura)  
Trinidad & Tobago, August 2010

**S. Singh**

Trinidad Hinduism: Negotiating Ideology, Landscape  
and Practice  
43<sup>rd</sup> Annual Conference of the Association of Caribbean  
Historians  
San Juan, Puerto Rico, May 2011

**S. Singh**

The Ramleela in Trinidad  
3<sup>rd</sup> International Ramayana Conference,  
Northern Illinois University, September 2010

**S. Singh**

*The Role of the Indian Diaspora in Trinidad and Tobago*  
Conference on Building a New Partnership Between  
India and the Caribbean: The Role of Diaspora.  
UWI, St. Augustine, June 2011

**G. Skeete**

*Applied Literature and the Civics Classroom: Merle Hodge's 'Teachable Moments' in Crick, Crack Monkey, For the Life of Laetitia and "Limbo Island."*

The Sixth International Conference: Literature, Memory and Imagination in Latin America and the Caribbean  
UWI, St. Augustine, August 2010

**M. Toussaint**

*Technology and Education in Trinidad & Tobago – A blessing or curse? Some reflections on Negative and Positive Implications*

Education Conference: Maximizing the Role of Education in a Changing Society  
UWI, St. Augustine, September 2010

**M. Toussaint**

*Walter Rodney: The Trinidad (and Tobago) Dimension*  
43<sup>rd</sup> Annual Conference of the Association of Caribbean Historians  
Barbados, May 2011

**R. Walker**

*La madama como personaje literario en la literatura latinoamericana*

Sexto Congreso Internacional. Literatura: Memoria e Imaginación de Latinoamérica y el Caribe. CIALC, UNAM, COSTAATT, CENLAC, UAEM, SOLAR and the Pan-African Studies Department, University of Louisville  
UWI, St. Augustine, August 2010

**D. Watson**

Awarded 'Best Paper' for the presentation *Teaching Students to Think: Reflective Journaling as a Strategy to Enhance Students' Understanding and Practice of Academic Writing*

Las Vegas International College Teaching & Learning Conference  
Las Vegas, October, 2010.

**D. Watson**

*The 'T' in Reflection: Developing Teaching Philosophies and Motives as Part of Teacher Education*

3<sup>rd</sup> Annual Edition ICERI 2010 (International Conference of Education, Research and Innovation)  
Madrid, Spain, November 2010

**V. Youssef**

*The discourse and counter-discourse of globalization: a Caribbean case study*

New Geographies: Studies in Postcoloniality and Globalization  
UWI, St. Augustine, March 2011

## Conferences Papers/ Proceedings

**Dedovets, Z.** (2011) 'Uncompleted' situations as the tool for developing motivation in the mathematics classroom at secondary school. In *Proceedings of Canada International conference on Education (CICE-2011)* Canada, University of Toronto.

**Dedovets, Z.** (2011) The organization of students' research activities for geometry learning. In *Proceeding of the International Conference "Modern educational Scientific approaches, experience, problems, prospects.* Penza, V. G. Belinsky Penza State Pedagogical University, Russia (PSPU), V.1. p. 46-48, ISBN 978-5-94321-205-5.2011

**Fowler, C. J. H.,** Nkambule, D., & Vilakati, N. (2010). An investigation of the academic performance of distant and conventional students studying commerce at the University of Swaziland. In *Proceeding of the 6<sup>th</sup> Pan Commonwealth Forum*, India.

**Mideros, D.** (2010) "Latin American Soap Operas": A Quest for Critical Listening in Spanish as a Foreign Language. In *Frontiers of Language Teaching: Proceedings of the 2010 International Online Language Conference (IOLC 2010)* Edited by Azadeh Shafaei, 2010. 216-230.

**Roberts, N.** (2010) "Postmodern Education: Teaching Literature in a Foreign Language" in *Frontiers of Language and Teaching: Proceedings of the 2010 International Online Language Conference (IOLC 2010)* Ed. Azadeh Shafaei, Boca Raton: Universal-Publishers, 2010. 230-235

## Exhibitions

**Kenwyn Crichlow** exhibited at the Royal Commonwealth Society in London on 23 September to 11 October, 2010.

**Kenwyn Crichlow** exhibited "Modern Art" at the Y Gallery in Port-of-Spain, Trinidad in September 2010

## Reviews

**Fergus, C.** (2010) Review of *Contrary Voices: Representation of West Indian Slavery, 1657-1834*. Karina Williamson, ed. Jamaica: University of the West Indies Press

**Fergus, C.** (2010) Review of *Who Abolished Slavery: Slave Revolts and Abolitionism: A Debate with João Pedro Marques*. SEYMOUR DRESCHER & PIETER C. EMMER (eds.). New York: Berghahn Books

**Pemberton, R.** (2011) Review of Learie Luke in NSWG in *Engendering Women*, Ian Randle

**Roberts, N.** (December 2010) Review of “*The Devil in the Details: Cuban Antislavery Narrative in the Postmodern Age*,” by Claudette Williams. *Caribbean Quarterly*

**Teelucksingh, J.** (Spring 2011) Review of “*Before Borwn: Heman Marion Sweat, Thurgood Marshall and the Long Road to Justice*,” *Western Journal of Black Studies*, vol. 35, no. 2 (Spring 2011), 157

## Other Publications

**De Lisle, J.** (2010) *Evaluation of the Continuous Assessment Programme: Final Report*. Port of Spain: Ministry of Education

**Mohammed, J.** (2009). *QRC 5<sup>th</sup> Hall of Honor Inductees*. (Compilation of short biographies of 21 alumni)

Renwick, S., & **Quamina-Aiyejina, L.** (2011) (Eds). *Sustainable funding of higher education in challenging times: Papers presented at a Professional Development Seminar organized by the West Indies Group of University Teachers (WIGUT), St, Augustine, Trinidad and Tobago, 4 March 2010*. St. Augustine, Trinidad: WIGUT, 2011, 73p

**Quamina-Aiyejina, L.** (2011) *Anguilla: A partially annotated bibliography*, compiled by Lynda Quamina-Aiyejina. St, Augustine, Trinidad: CERIS, School of Education, 2011, iii, 171 p. Prepared on the occasion of the Anguilla Conference: Beyond Walls: Multidisciplinary perspectives, convened by the UWI Open Campus Anguilla at the Training Room, National Bank of Anguilla, the Valley, Anguilla, April 28-29, 2011.



# Faculty of Medical Sciences

## Journal Publications

### Department of Pre-Clinical Sciences

**Addae, J. I.**, Ali, N., & Stone, T. W. (2011). Effects of AMPA and clomethiazole on spreading depression cycles in the rat neocortex in vivo. *European Journal of Pharmacology* 653, 41-46.

Stone, T. W., Lui, C., & **Addae, J. I.** (2011). Effects of ethylenediamine, a putative GABA-releasing agent on rat hippocampal slices and neocortical activity in vivo. *European Journal of Pharmacology* 650, 568-578.

Forrest, C. M., **Addae, J. I.**, Murthy, S., Darlington, L. G., Morris, B. J., & Stone, T. W. (2011). Molecular changes associated with hippocampal long-lasting depression induced by the serine protease subtilisin-A. *European Journal of Neuroscience*. 34, 1241-1253.

Dhanookdhary A., Gomez A., Khan R., Lall, A., Murray D., Prabhu D., Ragoonath A., Singh N., Tewari S. & **Youssef, F.F.** (2010) Substance use among university students in the English Speaking Caribbean: Evidence from a Trinidad & Tobago University. *West Indian Medical Journal* 59(6):641-9.

**Youssef F.F.**, Dookeeram K., Basdeo V., Francis E., Doman M., Mamed D., Maloo, S., DeGannes J., Dobo L., Ditshotlo P., & Legall G. (2011) Stress alters personal moral decision making *Psychoneuroendocrinology* Epub ahead of print doi:10.1016/j.psyneuen.

Phillips C.M. & **Odekunle A.** (2011). The organization of the Brainstem Nuclei Associated with the vagus nerve in the Agouti (*Dasyprocta Leporina*): A neurohistological study. *West Indian Medical Journal*; 60(1): 47 -53.

Suepaul SM, **Carrington C.V.**, Campbell M., Borde G. and Adesiyun A.A. (2011). Seroepidemiology of leptospirosis in livestock in Trinidad. *Tropical Animal Health and Production*. 43(2): 367-75.

Andall-Brereton G.M., Hosein F., Salas R.A., Mohammed W., Monteil M.A., Goleski V., Severini A., Quesnel S.M. **Carrington, C.V.**, Boodram L.L., Boisson E., Akpaka P., Paul R.C. (2011). Human Papillomavirus genotypes and their prevalence in a cohort of women in Trinidad. *Revista Panamericana de Salud* 29(4):220-6.

Padhi A., Moore A.T., Brown M.B., **Foster J.E.**, Pfeffer M., Brown C.R. (2010). Isolation by distance explains genetic structure of Buggy Creek virus, a bird-associated arbovirus. *Evol Ecology*. 25 (2): 403-416.

**Nayak B.S.**, Maharaj N., Lue-Fatt L., Legall G. (2011) Relationship of Biochemical parameters, BMI and blood pressure with age, gender and ethnicity of Trinidadian type 2-diabetic subjects. *Archives of Physiology and Biochemistry* [Epub ahead of print].

**Nayak B.S.**, Maharaj N., Maharaj S.S., Evernden K., Fane U., Lue-Fatt L., Maharaj D., Maharaj S., Maharaj V., Maloney V. (2011) Relationship of dyslipidemia and uric acid with the risk of myocardial infarction among hypertensive patients in Trinidad. *Archives of Physiology and Biochemistry* [Epub ahead of print].

Geetha B., **Nayak B.S.**, Naveen D.R., Shantharam M. (2011) Microalbuminuria (MAU) and its relationship with anthropometric variables in type 2 diabetic and non diabetic females of Dakshina Kannada district in Indian population. *International Journal of Pharmacy and Biological Sciences* 5:1-2.

Geetha B., **Nayak B.S.**, Shantaram M. (2011) Management of newly diagnosed diabetes by *Trigonella foenum-graecum*. *IJRAP* 2 (4): 1231-1234.

Geetha B., **Nayak B.S.**, Mayya S., Shantaram M. (2011) Evaluation of glycemic status and risk of cardiovascular diseases in type 2 diabetes of western coastal area of Dakshina Kannada district population. *Biomedicine* 31 (3): 1-4.

**Nayak B.S.**, Mungrue K., Gopee D., Friday M., Garcia S., Hirschfeld E., Grant C., Henry J., Chadband A., Gardider K., Gaborone N., Wright S., Baptise A. (2011) Epidemiology of multiple myeloma and the role of M-band detection on serum electrophoresis in a small developing country: A retrospective study. *Archives of Physiology and Biochemistry* 117(4): 236-240.

**Nayak B.S.**, Butcher D.M., Bujhawan S., Chang D., Chang S., Cabral-Samaroo D., Cadan S., Buchoon V., Budhram L., Boyce M., Teelucksingh S. (2010) The association of low serum creatinine, abnormal lipid profile, gender, age and ethnicity with Type II diabetes mellitus in Trinidad & Tobago. *Diab Res Clin Pract*. 2011 doi:10.1016/j.diabres.12.017.

**Nayak B.S.**, Marshall J.R., Ramdath D.D., Isitor G., Xue S, Shi J. (2011) Wound-healing properties of the oils of *Vitis vinifera* and *Vaccinium macrocarpon*. *Phytother Res* 37(2):147-58.

Kandimalla B.H., Sirjusingh A., **Nayak B.S.**, Maiya S.S.(2011) Early antenatal serum lipid levels and the risk of pre-eclampsia in Trinidad and Tobago. *Archives of Physiol Biol* 117: 215-221.

Mohan J.S., Lip GY, Blann AD, Bareford D, Marshall JM. (2011) Endothelium-dependent and endothelium-independent vasodilatation of the cutaneous circulation in sickle cell disease. *Eur J Clin Invest.* 41: 546-51. Epub 2010 Dec 15.

**Rao S.R.**, Ovchinnikov N., Jagessar A., Rao R.T., Gajula S.S., Rao C. (2011) An unusual case of congenital anomaly of the heart. *Revista Argentina de Anatomia Clinica*, 3 (1): 57-63.

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## Abstracts

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## Books & Book Chapters

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## Conference Presentations

### Department of Pre-Clinical Sciences

**J. Addae and T. Stone**

*Effects of ethylenediamine - a putative GABA-releasing agent - in rat hippocampal slices and neocortical activity in vivo.*

Society for Neuroscience Abstracts  
November 2010

**C. V. Carrington**

*Introduction to Genomics: Implications for Anaesthesiology and Peri-operative care.*

Update 2010 on Perioperative Care  
Port-of-Spain, Trinidad, November 2010

**O.M. Allicock, P. Lemey, A.J. Tatum, O.G. Pybus, B.A. Mueller, S.N. Bennett, M.A. Suchard, J.E. Foster and C.V. Carrington**

*Spatiotemporal dynamics of Dengue viruses in the Americas.*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**A.J. Auguste, A.P. Adams, N.C. Arrigo, R. Martinez, A.P. Travassos da Rosa, A.A. Adesiyun, D.D. Chadee, R.B. Tesh, C.V. Carrington and S.C. Weaver**

*Isolation and characterization of sylvatic mosquito-borne viruses in Trinidad: enzootic transmission and a new potential vector of Mucambo virus.*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**C.V. Carrington**

*Genomics - The future of personalised medicine.*

Annual Meeting of the Barbados Association of Medical Practitioners

Bridgetown, Barbados, May 2011

**C. Cuthbert, J.E. Foster, and D.D. Ramdath**

*Comparison of methylation status of the insulin receptor substrate 2 genes among the major ethnicities of Trinidad.*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**F. Youssef**

*Social Stress: Can it influence moral decision making?*

The Social Brain 2011, MRC Cognition and Brain Sciences Unit

Cambridge, UK, April 2011

**K. Manohar Maharaj, K. Saugh, G. Millar, P. Minocha, A. Mohammed, C. Mohammed, R. Mohammed, C. Rolle, T. Thibelang and F.F. Youssef**

*Assessing the Moral Competence of Students of the University of the West Indies*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**K. Dookeeram, V. Basdeo, E. Francis, M. Doman, D. Mamed, S. Maloo, J. DeGannes, L. Dobo, P. Ditshotlo, and F.F. Youssef**

*Social Stress modulates personal moral decision making*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**G. Davis, N. Baboolal, S. Teelucksingh., J. Ramesar and A.McRae**

*Investigating cognitive function in type 2 diabetic patients using multiple testing instruments: A case controlled study.*

Caribbean Health Research Council Annual Scientific Meeting  
Guyana, April 2011

## School of Dentistry

### R. Rafeek

International Association of Paediatric Dentistry (IAPD)  
23<sup>rd</sup> Conference  
Athens, Greece, June, 2011

### R. Naidu

International Association of Paediatric Dentistry (IAPD)  
23<sup>rd</sup> Conference Poster Presentation  
Athens, Greece, June, 2011

### S. Marchan

Caribbean Dental Convention  
Bridgetown, Barbados, April, 2011

### T. Percival

International Association of Paediatric Dentistry (IAPD)  
23<sup>rd</sup> Conference  
Athens, Greece, June, 2011

### L. Coldero

American Association of Endodontists Annual  
Conference  
Texas, USA, April, 2011

## School of Veterinary Medicine

### T. Auguste

*Uterine Prolapse in Two Bitches*  
Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

N. George, K. Persad, R. Sagam, **A. Basu, V. Offiah, A. A. Adesiyun**, and W. Harewood

*Efficacy of commonly used anthelmintics on gastrointestinal nematodes of sheep in Trinidad*  
The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

A. Gordon, J. Marshall, K. Ramadass, **A. Stewart-Johnson**, K. Verstappen, J. Wagenaar, and **A. A. Adesiyun** *Occurrence of resistance to methicillin and other antimicrobial agents amongst S. aureus isolated from pigs and their human handlers in Trinidad.*  
The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

R. Harris, K. Sankar, J. Small, R. Suepaul, **A. Stewart-Johnson** and **A. A. Adesiyun**

*Prevalence and characteristics of enteric pathogens in diarrhoeic and non-diarrhoeic foals in Trinidad*  
The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

L. Koma, N. Mootoo, C. Legall, A. O. Adogwa and N. Singh  
*A non-invasive evaluation of the agouti abdomen with diagnostic ultrasound*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

L. Koma, N. Mootoo, C. Legall, A. O. Adogwa and N. Singh

*An evaluation of thoracic and abdominal radiographic anatomy of the agouti*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

S. Montserin, **K. Muñoz, A. Basu** and **R. Seebarsingh, R.**

*Platynosomum fastosum Kossack, 1910 (Trematoda, Dicrocoeliidae) infection of a short-haired cat in Trinidad*  
Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**S. Robertson, A. Boldilenyane**, and **T. Tshkudu**

*A comparative study of the blood supply to the brain of the agouti and rabbit*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**T. Ganesh** and **S. Bridglalsingh**

*Surgical Management of Long Bone Fractures in dogs: 53 cases (April 2009 – March 2010)*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

**T. Ganesh, C. Legall** and **S. Bridglalsingh**

*Femoral Head and Neck Excision (FHNE) Arthroplasty in dogs – Two year study with special reference to surgical indication and outcome*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

**K. Georges**, C. Ezeokoli, D. Peterson, O. Spargano, R. Belgrave

*Detecting tick-transmitted haemopathogens of horses using a reverse line blot assay. Tick and Tick Borne Pathogens 7*  
Zaragoza, Spain, July 2011

**K. Georges, C. Ezeokoli, O. Sparagano, N. Seepersad, A. Pottinger, T. Auguste** and S. Tasker

*A comparison of a quantitative real time PCR and Reverse Line Blot Hybridization in detecting Candidatus Mycoplasma haemominutum, Mycoplasma haemofelis and Candidatus Mycoplasma turencis infections of domestic cats in Trinidad and Tobago with a nnppte on risk fatcord for haemoplasma infections*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

**N. Mootoo, L. Koma, C. Legall, A. O. Adogwa, M. Singh**  
*An evaluation of the thoracic and abdominal radiographic anatomy of the agouti (Dasyprocta leporina) in Trinidad*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

#### **A. Phillips**

*Harmful algal blooms in the Caribbean*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

**A. Phillips, K. Metivier, C. Ezeokoli, R. Holder, T. Alleyne**

*Seroprevalence of porcine reproductive and respiratory syndrome virus and pseudorabies virus in Trinidad and Tobago swine*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

#### **R. Seebaransingh**

*A review of surgical biopsies submitted to the School of Veterinary Medicine, UWI: 2006-2008*

The 26<sup>th</sup> Biennial Caribbean Veterinary Medical Association Conference  
Ocho Rios, Jamaica, November 2010

#### **G. Williams**

*Management of equine stromal abscess with the use of a conjunctival pedicle flap*

Faculty of Medical Sciences Research Day  
St. Augustine, Trinidad, December 2010

## **School of Pharmacy**

**P. Sealy, D. Ignacio, M. Manjunath and W. Swanston**  
*Surveillance of Antibiotic Resistance at Tertiary Institutions in Trinidad*

Faculty of Medicine Sciences Research Day  
St. Augustine, Trinidad, December 2010

#### **P. Sealy**

*The In-Vitro Efficacy of Antifungal Impregnated Biodegradable Bone Delivery Systems*

The Caribbean Academy of Sciences (CAS)  
Antigua, November 2010

**P. Sealy, D. Ignacio, M. Manjunath and W. Swanston.**  
*Surveillance of Antibiotic Resistance at Tertiary Institutions in Trinidad*

The Caribbean Academy of Sciences (CAS)  
Antigua, November 2010

**R. Extavour, D. Pellow and B. Scantlebury**  
*Continuing Education Needs of Caribbean Association of Pharmacists*

The 30<sup>th</sup> Annual Convention of the Caribbean Association of Pharmacists  
Castries, St. Lucia, August 2010

# Faculty of Science & Agriculture

## Journal Publications

### Department of Agricultural Economics and Extension

Arthur R and **Nichols S.** (2011) Nutritional knowledge, attitudes and dietary behaviour among state employees in Trinidad and Tobago. (Published Abstract) *American Journal of Epidemiology*; 173(Suppl): S32

**Ganpat, W.** and Webster N (2010). An Agricultural Apprenticeship Program for youth in Trinidad, West Indies. Can it meet the Caribbean's urgent need for younger farmers? *Journal of Youth Development – Bridging theory and Practice*. Vol. 5. No. 1:43-53

Harris, E., **Pemberton C.**, and De Sormeaux A. (2010) "The Impact of the Banana Trade Regime (BTR) and the Banana War on Dominica's Banana Industry." *Tropical Agriculture* Vol. 87, no.4: 182-198

**Nichols S** and Dabrell R. (2011) Polycystic ovary Syndrome (PCOS) and its nutritional antecedents in a multiethnic population (Published Abstract). *FASEB Journal*. 25:lb226.

**Pemberton, C.**, Harris E., and **Patterson-Andrews H.** (2010) "Cultural Bias in Contingent Valuation of Copper Mining in the Commonwealth of Dominica" *Ecological Economics* Vol. 70, Issue 1, 15 (November 2010): 19- 23.

Ramcharitar-Bourne A, **Nichols S**, Badrie N. (2011) Anthropometric characteristics and predictors of adiposity among preschool children in a multiethnic population. (Published Abstract) **FASEB Journal**. 25:lb232

Ramcharitar-Bourne A, **Nichols S**, Badrie N. Diagnostic Performance of Recommended Anthropometric Indices in Predicting Excess Adiposity in a Caribbean Preschool Population. **Obesity** 19: S41: 751-P

Ramdwar, M and **W Ganpat** (2010). Likelihood of students in the formal education system in Trinidad to pursue agriculture as a profession and the implications for development. *Journal of Agricultural Education* Vol. 51 (4): 28-37

### Department of Food Production

Broomes, J. and **N. Badrie.** (2010) *Effects of low-methoxyl pectin on physicochemical and sensory properties of reduced -calorie sorrel/roselle (Hibiscus sabdariffa L.) jams.* *The Open Food Science Journal*, 4: 43-50.

Mollineau, W.M., A.O. Adogwa and **G.W. Garcia.** (2011) Liquid and Frozen storage of Agouti (*Dasyprocta leporina*) Semen extended with UHT Milk, Unpasteurized Coconut Water and Pasteurized Coconut Water. *Veterinary Medicine International*, Volume 2011, Article ID 702635, doi:10.4061/2011/702635

Guimaraes, D.A., R.L. Ramos, O.M. Ohashi, **G.W. Garcia** and W.G. Vale. (2011) Plasma concentration of progesterone and 17 $\beta$ -estradiol of black-rumped agouti (*Dasyprocta leporina*) during the estrous cycle. *Rev. Biol. Trop. (Int. J. Trop. Biol. ISSN-0034-7744)* 59(1): 29-35

Mollineau, W.M., Adogwa, A.O. and **G.W. Garcia.** (2010) Improving the efficiency of the preliminary electro-ejaculation technique developed for semen collection from the Agouti (*Dasyprocta leporina*). *Journal of Zoo and Wildlife Medicine*, 41(4):633-637.

Wuddivira, M.N., Ekwue, E.I. and **Stone, R.J.** (2010) Modelling Slaking Sensitivity to Assess Degradation of Humid Tropic Soils under Intense Rainfall. *Land Degradation and Development Journal*, 21:61-73.

**Wilson, Marisa.** (2011) "The moral economy of food provisioning in Cuba." *Food, Culture and Society* (Berg) 15(3): 1-15.

**Wilson, Marisa.** (2011) 'Social property in Cuba: The ideal versus the reality.' *Journal of the Anthropological Society of Oxford (JASO)*, N.S. 2(1): 90-100 ([http://www.isca.ox.ac.uk/fileadmin/ISCA/JASO/JASO\\_2011/JASO03\\_1\\_2011Wilson.pdf](http://www.isca.ox.ac.uk/fileadmin/ISCA/JASO/JASO_2011/JASO03_1_2011Wilson.pdf)).

**Wilson, Marisa L.** (2010) "The revolutionary revalorization of *campesinos* (peasants) in Cuban history and implications for food security in present-day Cuba." *History in Action* 1(1): 1-6. (<http://www.mainlib.uwi.tt/epubs/historyaction/index.htm>).



## Abstracts

**Wuddivira, M.N.**, E.I. Ekwue and R.J. Stone. (2011) Predicting the stability and erodibility of humid tropical soils under intense rainfall. *Geophysical Research Abstracts*, Vol. 13, EGU2011-12554, 2011, EGU General Assembly 2011.

### Non-refereed Articles

**Badrie, N.** (2011) Over-view of the status and potential of breadfruit (*Artocarpus altilis*) and breadnut (*Artocarpus camansis*) in St. Kitts and Nevis. Wednesday 27<sup>th</sup> July, 2011, St. Kitts.

**Badrie, N.** (2011) Strategies and Plan for Developing a breadfruit (*Artocarpus altilis*) and breadnut (*Artocarpus camansis*) in St. Kitts and Nevis. Processing. Wednesday 27<sup>th</sup> July, 2011, St. Kitts.

**Badrie, N.** (2011) Breadfruit Workshop Feedback Department of Agriculture, Baserre, St. Kitts.01/06/11.

**Badrie, N.** (2011) 'Agro-processing potential for breadfruit (*Artocarpus altilis*) & Breadnut (*Artocarpus camansis*) in St. Kitts and Nevis. Department of Agriculture, St. Kitts, July 2<sup>nd</sup>, 2011.

**Badrie, N.** S.Y. De Leon and R.A. Talukdhher. (2011) 'Community food security: strategies tested in Trinidad and Tobago, Philippines and Bangladesh'. Presentation number 093-04, New Orleans, USA. 06/12/11

**Badrie, N.** and S.Y. De Leon. (2011) Some Initiatives in Science, Technology and Innovation (STI) for Youth in Trinidad and Tobago (T&T) and the Republic of the Philippines (RP). The World of Food Science. Institute of Food Technologists and the International Union of Food Science and Technology. 7pp. Accessed 07/02/11. <http://www.worldfoodscience.org/cms/?pid=1005615&printable=1>

**Wilson, Marisa L.**, S. Hutchinson and C. Pemberton. (2010) *Food Security and climate change: socio-economic and environmental considerations*. UN (FAO) Policy brief for CARICOM/CARIFORUM region.

## Department of Chemistry

Schulze-Makuch, D., **S. Haque**, S. Hallam, M. Resendes de Sousa Antonio, D. Ali, R. Hosein, Y.C. Song, **D.M. Beckles**, E. Guinan and H. Lehto. (2011). Microbial life in a liquid asphalt desert. *Astrobiology*. 11:241-258.

**Nigel Kevin Jalsa.** (2011) Regioselective removal of the anomeric *O*-benzyl from differentially protected carbohydrates. *Tetrahedron Letters*, 52, 6587-6590.

**Kumar, Arvind;** Borthakur, Rosmita; Koch, Angira; Chanu, Oinam B.; Choudhury, Sanjesh; Lemtur, Aka; Lal, Ram A.. (2011), Synthesis and characterization of heterobimetallic molybdenum and nickel complexes derived from polyfunctional disalicylaldehyde oxaloyldihydrazone. *Journal of Molecular Structure* 999(1-3), 89-97

**Kumar, A.;** Lal, R. A.; Chanu, O. B.; Borthakur, R.; Koch, A.; Lemtur, A.; Adhikari, S.; Choudhury, S. Synthesis and characterization of a binuclear copper (II) complex [Cu(H<sub>2</sub>slox)]<sub>2</sub> from polyfunctional disalicylaldehyde oxaloyldihydrazone and its heterobinuclear copper(II) and molybdenum(VI) complexes. *Journal of Coordination Chemistry* (2011), 64(10), 1729-1742

Lal, R. A.; Chanu, O. B.; Borthakur, R.; Asthana, M.; **Kumar, A.;** De, A. K. 2011. Synthesis and characterization of molybdenum (V,VI) complexes derived from bis(2-hydroxy-1-naphthaldehyde) malonoyldihydrazone. *Journal of Coordination Chemistry*, 64, 1393-1410

Lal, R. A.; Basumatary, D.; Chanu, O. B.; Lemtur, A.; Asthana, M.; **Kumar, A.;** De, A. K. 2011. Synthesis, characterization, reactivity, and electrochemical studies of manganese (IV) complexes of bis(2-hydroxy-1-naphthaldehyde)adipoyldihydrazone. *Journal of Coordination Chemistry*, 64(2), 300-313

Bonnie J Tyler, Steffen Dambach, Sebastian Galle, **Richard E. Peterson**, and Heinrich F. Arlinghaus 2011. An Investigation of the Utility of Laser-SNMS for the Detection of Polyaromatic Hydrocarbons in Individual Atmospheric Aerosol Particles Anal. Chem., • DOI: 10.1021/ac2008338

Peter N. Nelson, Henry A. Ellis, **Richard A. Taylor;** 2011. Odd-even alternation in a homologous series of Zinc(II) *n*-alkanoates; *Journal of Molecular Structure* 968, (1-3), 10-15.



**Richard A. Taylor**, Henry A. Ellis; Odd-even thermotropic mesomorphic and melting behaviour of a homologous series of Zinc(II) *n*-alkanoates; *Molecular Crystals and Liquid Crystals* 548, 2011, 37-54.

#### Refereed Reviews

**Arvind Kumar**, S. S. Sun, A. J. Less. (2010). in Photophysics of organometallics. Alitor J. Lees (Vol. Editor) Photophysical and Photochemical Properties of Organometallic Rhenium diimine compounds. *Topics in Organometallic Chemistry*, (29), 1-35 (Springer).

### Department of Life Sciences

**Chadee, D.D.**, Mohan, ARM, Cumberbatch A and Adesiyun, A.A. (2010). Revised incidence of Leptospirosis in Trinidad and Tobago, West Indies. *Acta Tropica* 113: 207.

Hemme, R.R., Thomas, C.L., **Chadee, D.D.** and Severson, D.W. (2010). Influence of urban landscapes on population dynamics in a short-distance migrant mosquito: evidence for dengue vector *Aedes aegypti*. *PLoS Neglected Tropical Diseases*, 4: e634 (1-9)

**Chadee, D.D.** (2010). Diel oviposition periodicity of *Aedes aegypti* (L.) (Diptera: Culicidae): effects of forced egg retention. *Bulletin of Entomological Research*, 100:599-603.

**Chadee, D.D.** and Ritchie, S (2010). Oviposition behaviour and parity rates of *Aedes aegypti* collected in sticky traps in Trinidad, West Indies. *Acta Tropica*, 116:212-216.

Auguste, A.J., Paige Adams, A., Arrigo, N.C., Martinez, R., Travassos Da Rosa, A.P.A., Adesiyun, A.A., **Chadee, D.D.**, Tesh, R.B., Carrington, C.V.F., and Weaver, S.C. (2010). Isolation and characterization of sylvatic mosquito-borne viruses in Trinidad Enzootic transmission and a new potential vector of Mucambo virus. *American Journal of Tropical Medicine and Hygiene*, 83: 1262-1265.

Polson, Karen A., Samuel C Rawlins, William G Brogdon and **Dave D Chadee** (2010). Organophosphate Resistance in Trinidadian strains of *Aedes aegypti* mosquitoes *Journal of the American Mosquito Control Association*, 26:403-410.

**Chadee, D.D.** and Ritchie, S (2010). An evaluation of three *Aedes aegypti* trapping methods in urban and rural areas in Trinidad, West Indies. *Journal of Vector Ecology*, 35: 395-400.

Polson, Karen A., Samuel C Rawlins, William G Brogdon and **Dave D Chadee** (2010). Use of Biochemical Assays to Detect and Assess Resistance in Trinidadian strains of *Aedes aegypti* mosquitoes. *Acta Tropica* 117: 31-39.

Schneider, J.R., **D.D. Chadee**, A. Mori, J. Romero-Severson and D.W. Severson (2010). Heritability and phenotype plasticity of adult body size in the mosquito *Aedes aegypti* and implications for dengue virus transmission. *Infection, Genetics and Evolution*, 11: 11-16.

Jacob, B.G., **D.D. Chadee** and R.N. Novak (2011). Adjusting second moment bias in Eigenspace using Bayesian Empirical Estimators, Dirichlet tessellations and Worldview 1 data for predicting *Culex quinquefasciatus* habitats in Trinidad. *Journal of Geographical Information System*, 3: 18-48.

Polson, Karen A., Samuel C Rawlins, William G. Brogdon and **Dave D Chadee** (2010). DDT and Pyrethroid Resistance in Trinidad and Tobago strains of *Aedes aegypti* *Bulletin of Entomological Research* 101: 435-441.

Mohammed, A and **D.D. Chadee** (2011). Effects of different temperature regimens on the development of *Aedes aegypti* (L.) (Diptera: Culicidae) mosquitoes. *Acta Tropica*, 119: 38-43.

Mohan, A.R.M and **D.D. Chadee** (2011). Knowledge, Attitudes and Practices of households regarding Leptospirosis in Trinidad, West Indies. *International Health* 3: 131-137.

Avila-Rostant O., **Lennon A.M.**, Umaharan P. (2010) Spathe color variation in *Anthurium andraeanum* (Hort.) and its relationship to vacuolar pH. *HortScience* 45: 1768-1722

**Avila-Rostant O., Lennon A.M., Collette V., Umaharan P.** (2011) Determination of expression patterns of flavonoid biosynthetic genes in cultivars of *Anthurium andraeanum* towards understanding regulatory control of spathe colour. *Tropical Agriculture (Trinidad)* 88: 10-17

**Jayaraj, J.** and Punja, Z.K. (2010). Commercial extract from the brown seaweed *Ascophyllum nodosum* reduces fungal diseases in greenhouse cucumber. *Journal of Applied Phycology*, DOI 10.1007/s10811-010-9547-1.

Jayaraj, J., Bhuvaneshwari, R., Rabindran, R., Muthukrishnan, S. and Velazhahan, R. 2010. Oxalic acid induced resistance to *Rhizoctonia solani* in rice is associated with induction of phenolics, peroxidase and pathogenesis-related proteins. *Journal of Plant Interactions*, 5: 147-157.

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Harris, S; Ramnarine, I.W. Smith Henrik G. (2010) Picking personalities apart: estimating the influence of predation, sex and body size on boldness in the guppy *Poecilia reticulata* OIKOS 119 (11): 1711-1718

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## Department of Computing & Information Technology

Bachu, E., M. Bernard, (2011) Enhancing Computer Programming Fluency through Game Playing, *International Journal on Computing*, Vol. 1, No. 3, 2011

Goodridge, W., (2011), Examining a new Decision Making Technique and its application to the Software Procurement Process. *Cyber Journals: Multidisciplinary Journals in Science and Technology, Journal of Selected Areas in Software Engineering (JSSE) On-line Journal: Vol.01 (2011) pgs. 8-15.*

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## Department of Mathematics and Statistics

Avuraye, F.I, **B. S. Bhatt**, P. Nagarani (2011) On the solution of the convective – diffusion equation. *Int J. Pun S Appl Math* 68, 1:37 – 53

**Wahid, S.**, (2011) An Efficient Combinatorial Dual-Fusion Modification of Bernstein's Polynomial Approximation Operator. *Journal of Applied Mathematics*. Vol-2: 1535 - 1538

**Wahid, S.**, (2011) An Efficient Approximation Using Probabilistically Improved Combinatorial Structure of Bernstein's Polynomial Operators Weights through the Fusion of Dual-Perspectives. *Journal of Mathematics Research* Vol 3 No.3: 59-62

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## Department of Chemistry

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Mahabir, R.S. and **D.D. Chadee** (2010). Impact of road networks on the distribution of Dengue haemorrhagic Fever cases in Trinidad, West Indies. Presented at the 59<sup>th</sup> Annual meeting of the American Society of Tropical Medicine and Hygiene, November 2-7<sup>th</sup> 2010, Atlanta, Georgia, USA.

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**Chadee, D.D.** (2011). Dengue Fever Control using the Best Practice approach in Trinidad and Tobago. Presented at the 3<sup>rd</sup> Meeting of the Bill and Melinda Gates Grant on the "Development and proof of efficacy of a lethal ovitrap for dengue prevention" on 9<sup>th</sup> -12<sup>th</sup> April 2011 at Tulane University, New Orleans, Louisiana, USA.

Mohan, ARM and **Chadee, D.D.** (2011). Assessing the state of human leptospirosis in Trinidad and Tobago using the evidence based approach. Presented at the 56<sup>th</sup> Annual Council and Scientific Meetings of the Caribbean Health Research Council, April 4-6, 2011, Princess Hotel, Georgetown, Guyana, South America.

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## Department of Computing & Information Technology

Gajraj, R., **M. Bernard**, M. Williams, L. Singh. 'Transforming Source Code Examples into programming Tutorials', 6th International Multi-conference on Computing in the Global Information Technology, ICCGI2011, Luxembourg, 2011

Bachu, E., **M. Bernard**. 'Enhancing Computer Programming Fluency through Game Playing', 4<sup>th</sup> Annual International Conference on Computer Games, Multimedia and Allied Technology (CGAT 2011), Malaysia, 25-26<sup>th</sup> April, 2011

R. Seegobin and **M. Hosein**. *Expanding the COPAR service using mutual exclusion, optimization and C++ threads in Opnet modeler*. The Tenth IASTED International Conference on Parallel and Distributed Computing and Networks PDCN 2011 February 15 – 17, 2011, Innsbruck, Austria.

V. Kalloo and **P. Mohan**. *A Comparison of Students' Perceptions with their Actual Usage of Mobile Learning for High School Mathematics* 6<sup>th</sup> International Conference on e-Learning (ICEL 2011) Kelowna, BC, Canada, June 27-28, 2011, 164-172.

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S. Sultan and **P. Mohan**. *A Framework for Collaborative Disease Management Using Mobile Technologies* ATA 16th Annual International Meeting and Exposition Tampa, Florida, USA, 2-4 May 2011.

**Khan K. and A. Nikov**. An approach for quick ergonomic risk evaluation of companies with computer-aided workplaces, Proc. 5<sup>th</sup> European Computing Conference ECC '11 Paris, France, April 28-30, 2011, pp. 152-157.

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## Department of Physics

**S. Haque**. Research seminar presented in psychology – “Decay of life events” - presented at The Department of Behavioural Sciences (UWI) research seminar series, March, 2011

Dirk Schulze-Makuch, **S.Haque**, Marina Resendes de Sousa Antonio, Denzil Ali, Riad Hosein, Young C. Song, Jinshu Yang, Elena Zaikova, Denise M. Beckles, Edward Guinan, Harry J. Lehto and Steven J. Hallam, “Microbial Life at Low Water Activity: A Natural Liquid Asphalt Lake and Titan,” European Astrobiology Network Association, July 11-14, 2011 (Germany)

**Davinder Pal Sharma** and Jamin Atkins, “FPGA Based Embedded Solution for Automatic Speech Recognition” IEM 2010 Conference on Fostering Engineering Networking, Collaboration and Competence, 7-8 October 2010, UWI, Trinidad, Pp. 146-152

**Indra Haraksingh** and Randy Koon Koon “Conceptual Model for Geothermal Energy Investigation in the Caribbean- proceedings of the Stanford Geothermol Workshop 2011, Vol 34, page 932 – 943.

**Indra Haraksingh** “Geothermal Energy Development in the Caribbean” with special focus on Nevis” Proceedings World Renewable Energy congress 2010, Abu Dhabi

## Cocoa Research Unit

Ali, N.A; Baccus-Taylor, G.S.H.; Sukha D.A. and Butler D.R. (2010). The effect of micro-organisms and fermentation time on cacao (*Theobroma cacao* L.) flavour. Proceedings of the 16<sup>th</sup> International Cocoa Research Conference, Bali, Indonesia. (ISBN 978-065-959-5) pp. 1561-1569.

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Iwaro, A.D., Bekele, F.L., Butler, D.R., Singh, V., Holder-John, A., Bharath, S., Surujdeo-Maharaj, S., Thévenin, J.-M., Deberdt, P. and Bidaisee, G.G. (2010). Recent progress in breeding for specific traits in cocoa to meet challenges to production. *Proceedings of the International Congress on Tropical Agriculture: Overcoming Challenges to Developing Sustainable Agri-Food Systems in the Tropics*, Port of Spain, Trinidad, 30 November – 5 December 2008, Hyatt Regency, Trinidad. Trinidad: The University of the West Indies, pp. 43-52.

Sukha, D.A. Davrieux, F. Boulanger, R. Assemat, S. Alter, P. and Butler, D.R. (2010). Characterisation of the Imperial College Selections according to their biochemical composition, aroma volatile fingerprints and sensorial profiles. Proceedings of the 16<sup>th</sup> *International Cocoa Research Conference*, Bali, Indonesia. (ISBN 978-065-959-5) pp. 813-821.

Maharaj, K., Maharaj, P., Bekele, F.L., Ramnath, D., Bidaisee, G.G., Bekele, I., Persad, C., Jennings, K., and Sankar, R. (2010). Trinidad Selected Hybrids: An investigation of the phenotypic and agro-economic traits of selected varieties. Proceedings of the 16th International Cocoa Research Conference, Bali, Indonesia, 9-14 November 2009: Cocoa Producers' Alliance, Lagos, Nigeria, pp. 63-72 (ISBN 978-065-959-5).

### Conference Proceedings (Non Refereed)

K. Maharaj, F.L. Bekele, D. Ramnath, P. Maharaj, R. Sankar, I. Bekele, K. Jennings, G.G. Bidaisee and C. Persad. Phenotypic Evaluation of Traditional Cacao Varieties Selected on Farms in Trinidad and Tobago and Trinitarios from the International Cocoa Genebank, Trinidad. Presented at the Final Workshop of the World Bank Development Market Place project entitled: *"Identification and promotion of ancient cacao diversity through modern genomics methods to benefit small-scale farmers"* - World bank Project TF 093747 (DM 2008), Ortinola Estate, Maracas Valley, Trinidad, July 14, 2011.

## Technical Presentations

### *Cocoa Research Unit*

Presented the results of a "Diagnostic survey of the cocoa industry in the Caribbean region" between January to May 2011 in the following countries: Belize, the commonwealth of Dominica, Grenada, Jamaica as part of a Centre for the Development of Enterprise funded project *"Caribbean Fine and Flavour cocoa Industry and commercialisation in the Caribbean Region"*



## Faculty of Social Sciences

### Journal Publications

#### Department of Behavioural Sciences

Surrett, R. Chadee, Derek, Young J and Heath, L. (2011). Preventative and Punitive Support: The Role of the Media. *Crime, Media and Culture*, 7(3): 1-17.

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Sogren M., Jones A., Nathaniel K & Cameron- Padmore J. (2011) Reconfiguring Social work Education to Fight HIV-AIDS: A Model for Developmental Contexts, *Social Work Education*, DOI:10.1080/02615479.2011.599841 ISSN 0261-5479 print/1470-1227 online <http://dx.doi.org/10.1080/02615479.2011.599841>

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Emmanuel Janagan. Johnson. (2011): Understanding and Protecting children from sexual abuse (CSA) – breaking the silence. *Journal of School of Social Work*, 8(1): 03-06 ISSN No. 0976-3759 (Non-ISI/Non-SCOPUS Cited Publication)

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Pierre, M., Chadee, D. & Bazalais, K. (2011). Perceptions of Racism as a Predictor of Psychological Distress. *Social and Economic Studies*, 60(2): 105-125.

Dylan Kerrigan. 'Individualism, Group recognition and the Social recognition of Race on Reality TV' in *Critical Approaches to Discourse Analysis Across Disciplines*, Volume 5, Issue 1. (2011)

Dylan Kerrigan. 'Only West Indians: Creole Nationalism in the British West Indies.' *Wadabagei*, Vol 13, No.2 (2010).

#### Reviews

Dylan Kerrigan. 'Make it New: the Thought of New World: The Quest for Decolonialisation.' *The Caribbean Review of Books*, March 2011.

Dylan Kerrigan. 'Antonio Gramsci.' *Marx and Philosophy Review of books*, February 2011.

Dylan Kerrigan. 'Creole to the World: Globalisation and the Post-Creole Imagination: Notes of Feeing the Plantation.' *The Caribbean review of books*, January 2011.

Dylan Kerrigan. 'The Return of the native: The Amerindians.' *The Caribbean Review of Books* October 2010.

#### Department of Management Studies

Chambers, D., Roberts, S. and **Lewis-Cameron, A.** (2010). (eds) *Papers from Conference Proceedings of the 1<sup>st</sup> International Tourism Conference – Beyond the Boundary: Creating New Epistemologies in Tourism, Tourism and Hospitality Research*, 10, 4

#### Department of Economics

**Alghalith M** (2011) Optimal option pricing and trading: a new theory. *Journal of Derivatives and Hedge Funds*, 17, 181-185.

**Alghalith M** (2011) An Alternative Method of Stochastic Optimization: the portfolio model. *Applied Mathematics*, 2, 912-913.

**Alghalith M** (2011) General closed-form solutions to the dynamic optimization problem in incomplete markets. *Applied Mathematics*, 2, 433-435.

**Alghalith M** (2011) Portfolio optimization without the self-financing assumption. *Advances in Pure Mathematics*, 1, 81-83.

**Alghalith M** (2011) Endogenous risk measures. *Advances in Pure Mathematics*, 1, 28-29.

- Alghalith M** (2011) Adding one risk to another: generalizing background risk. *Revista de Economia del Rosario*, 14, 57-60.
- Alghalith M** (2011) Exact Taylor series with fixed coefficients. *International Journal of Mathematics, Game Theory and Algebra*, 20.
- Alghalith M** (2011) Hedging and production decisions under uncertainty: a survey. *International Journal of Mathematics, Game Theory and Algebra*, 20.
- Alghalith M** (2011) "New solutions to nonlinear ordinary differential equations. *Advances in Pure Mathematics*, 1, 3-4.
- Alghalith M** (2011) "A New Method of Estimating the Asset Rate of Return. *Theoretical Economics Letters*, 1, 1-2.
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- Alghalith M** (2010) The interaction between food prices and oil prices. *Energy Economics*, 32, 1520-1522 .
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- Laloo, R., **Alghalith, M., Franklin, M.,** and Floros, C. (2011) *Hedging with a Generalized Basis Risk: Empirical Results*. International Journal of Financial Markets and Derivatives (IJFMD).
- Joseph, S., **Franklin, M. and Hosein, R.,** *Remittances and Economic Development- the developmental impact of remittances in the Caribbean - a comparative analysis: Evidence from St. Lucia and Trinidad and Tobago*. Global Development Studies Vol. 6 Winter 2009 – Summer 2010. Nos. 1-2. 183 – 233
- Pantin, D., and M. Attzs,** (2010). Coastal Resources and Sustainable Economic Development in Caribbean SIDS: an overview. *The Shades of Blue: upgrading coastal resources for the Sustainable Development of the Caribbean SIDS*. 6-22
- Moya, R., **A-M. Mohammed,** S. Sookram. (2010) Productive Development Policies in Trinidad and Tobago: A Critical Review. *IDB Working Paper Series #115*.
- Mohammed, A-M** and E. Strobl. (2011) Good Governance and Growth in Developing Countries: A Case Study of Regulatory Reforms in the Telecommunications Industry. *Journal of Industry, Competition and Trade*, 11
- Mohammed, A-M,** S. Sookram and G. Saridakis. 2011. Do Victims of Crime Fear Crime More? Empirical Evidence from the Survey of Living Conditions (2005) of Trinidad and Tobago. *Social and Economic Studies*. (June) Volume 60, Issue 2, 127-144.
- Henry, L.** and N. Bissessar (2010) Trouble in Paradise: The impact of the Global Financial Crisis on the Caribbean, *Global Development Perspectives*, 6
- Hosein, R.,** and N. Derrick and R.Gookool (2010) Corporate Social Responsibility, Multinational Corporations in the Oil Sector and Agricultural Production in Host Economies. *Global Development Studies*.
- Hosein, R.,** and R. Gookool (2010) Hydrocarbon Exports and Food Insecurity in a Small Petroleum Rich Economy. *Social and Economic Studies*
- Hosein R** and Khadan J, (2011). "Exploring the potential benefits of the proposed CARICOM-Canada Free Trade Arrangement (FTA)", *Journal of International and Global Economic Studies*, 4(1), June 2011, 74-87.
- Hosein, R.** (2010) Booming Mineral Resources and the Imperative of Economic Diversification *Journal of West Indian Engineering*
- Hosein, R.,** S. Joseph (2010) Direct Diaspora Investments in the Caribbean – Opportunities and Prospects for Economic Development *Global Development Studies Vol. 6 Winter 2009 – Summer 2010*. Nos. 1-2.
- Teelucksingh, S.,** S. Eckert and P.A.L.D. Nunes (2011) Marine Turtles, Ecosystem Services and Human Welfare in the Marine Ecosystems of the Caribbean Sea: A Discussion of Key Methodologies, *Études Caribéennes*
- Teelucksingh, S.,** and C. Perrings (2010) Biodiversity Indicators, Ecosystem Services and Local Livelihoods in Small Island Developing States (SIDS): Early Warnings of Biodiversity Change, *UNEP Ecosystem Services Economics Working Papers*
- Teelucksingh, S.,** and P. A.L.D.Nunes (2010) Biodiversity Valuation in Developing Countries: A Focus on Small Island Developing States (SIDS), *FEEM Working Paper*

**Theodore, K., and P. Edwards-Wescott** (2011). An Assessment of Primary Health Care. The Caribbean Pre and Post Alma Ata Declaration and A Way forward. *International Journal of Humanities and Social Sciences*. 1:8

**Theodore, K.** (2011) Chronic Non-Communicable Diseases and The Economy. *West Indian Medical Journal*. 60(4):392-6.

## Books/Chapters in Books/ Articles

### Department of Behavioural Sciences

Chadee, Derek (ed) *Theories in Social Psychology*. Oxford: Wiley- Blackwell – 306 pages

Chadee, Derek: “Reactance Theory: Towards Freedom.” In Derek Chadee (ed) *Theories in Social Psychology*. Oxford: Wiley- Blackwell

Emmanuel Janagan. J. (2011): *Indian Dalits: Conflicts Identity and Tolerance*. VDM publications, Germany. ISBN-13: 978-3-639 35961-9

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Emmanuel J.J., Patil, K. (2011). *Professional challenges of social workers in delivering Services towards Social Development in Rural India: Social Development in India: New Vistas and Challenges* Bharathidasan University. Trichirappalli, South India

Emmanuel J.J., Adb Wahab, H., Subramaniam T. (2010): *Research as Social Work: Experimental Research on the application of counselling Techniques among the Students with Behavioural Problems in India*. ‘Paradigm in Social Sciences Research- A new Horizon’, Bharathidasan University. Trichirappalli, south India.

Emmanuel J., J., Haris Abd Wahab (2010) *Social Dynamics of ‘Affirmative Action’ in the world with special reference to details in India, :‘Social Issues-Problems and Perspectives’* Vikarma Simhapuri University, Sonali publications, India 2010, xxii, 478 p, ISBN: 978-8-184112-75-7

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Ramlogan, R & Persadi, N. (2010). *Commonwealth Caribbean Business Law*, 2<sup>nd</sup> Edition, Routledge/ Cavendish Press, London.

Lewis-Cameron, A. and Roberts, S. (2010). (eds) *Marketing Island Destinations: Concepts and Cases*, London: Elsevier.

### Department of Economics

**Hosein, R.** (2010) Trade Policy in the Caribbean in Caribbean Trade Policy and Development. Ed. Caribbean Development Bank.

**Hosein, R. and Franklin, M.** (2011) Funding Tertiary Level Education in Trinidad and Tobago: An Assessment of the Merits of a Graduate Tax in *Sustainable Funding of Higher Education in Challenging Times: Papers Presented at a Professional Development Seminar Organized by WIGUT*, St. Augustine. S. Renwick & L. Quamina-Alyejina (editors).

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**Teelucksingh, S.**, and Nunes, P.A.L.D. and Ding, H. (2010) European Forests and Carbon Sequestration Services: An Economic Assessment of Climate Change Impacts in *Valuation of Regulating Services of Ecosystems: Methodology and Applications*, Eds. Pushpam Kumar and Michael Wood, Routledge Explorations in Environmental Economics.

**Teelucksingh, S.**, Ghermandi, A., Nunes, P.A.L.D., Portela, R. and Rao, N. (2011) Recreational, Cultural and Aesthetic Services from Estuarine and Coastal Ecosystems in *“Ecological Economics of Estuaries and Coasts”*. Eds. van den Belt M. and Costanza R. In Wolanski E. and McLusky D.S. *Treatise on Estuarine and Coastal Science*. Burlington MA: Academic Press.

## Conference Presentations/ Proceedings

### Department of Management Studies

**Davis-Cooper, G** and Roach, C.

*“Increasing Teaching and Learning Effectiveness at the University of the West Indies, St. Augustine Campus, In an Era of Change and Reform.”*

The 34<sup>th</sup> TTPA Conference at Troy’s University, Richmond Virginia USA, May 2011.

**Davis-Cooper, G**

*“Reviewing the Literature – Critical Thinking & Analysis”*

Strategic Writing for Post Graduate Students of the University of the West Indies, St. Augustine, Department of Behavioural Sciences, Faculty of Social Sciences, UWI St. Augustine, April, 2011.

**Lewis-Cameron, A**

*“Tourism, Culture and The Creative Industries: Exploring the Linkages”*

Conference Chair/Coordinator for the 2<sup>nd</sup> International Conference on Tourism, UWI, St. Augustine, January 18-21, 2012 presented by Acolla Lewis-Cameron

### Department of Economics

*“Economic Policy Formation and Program Implementation in the Context of the Caribbean Reality”*  
UWI Annual **Conference on the Economy** (COTE 2010), The Department of Economics, UWI St. Augustine, October 7th -8th 2010. COTE 10: <http://sta.uwi.edu/conferences/10/cote/>

## Technical Reports

### Department of Economics

**Attzs, M** (2011) Study on the Vulnerability and Resilience of Caribbean SIDS United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) Consultancy for Caribbean Countries of ECLAC. 69 pages

**Attzs, M** (2011) Report on Prospects for Mainstreaming Renewable Energy in CDB BMCs: Antigua and Barbuda, Barbados, Bahamas, Belize, Dominica & St. Kitts Nevis Caribbean Development Bank, Wildey, Barbados 71 pages

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**Henry, L.** (2010) Firm Weaknesses and Regulatory Reform in the Non-Bank Financial Sector in *CARICOM Trade and Investment Report: Strategies for Recovery, Renewal and Reform.*

# ANSA McAl Psychological Research Centre

## Journal Publications

Surette, R., **Chadee, D.** & Young, J. (2011). Preventative and punitive criminal justice support: Social psychological assessment of the media. *Crime, Media & Culture*, 7(1), 31-48.

Pierre, M., **Chadee, D.** & Bazelais, K. (2011). Perceptions of racism as a predictor of psychological distress. *Social and Economic Studies*, 60:2, 105-125.

## Chapter in Book

**Chadee, D.** (2011). Reactance theory: Towards freedom. In D. Chadee (ed.). *Theorizing in Social Psychology* (pages 13-43). Oxford: Blackwell.

## Conferences

### **Chadee, D.**

*HIV/AIDS Stigmatization: The Impact of Ethnicity and Religion.*

2<sup>nd</sup> World Conference on Positive Psychology, Philadelphia Marriott, July 2011.

### **Philip, J.**

*Healthcare Students' Attitudes towards Patients living with HIV/AIDS.*

The 18<sup>th</sup> International AIDS Conference, Theme: Rights Here, Rights Now. Vienna, Austria, July 2010.

### **Philip, J.**

*Healthcare Students' Willingness to Interact with Patients Living with HIV/AIDS (PLHIV): Examining the influence of Attributions, Prejudicial Evaluation, Perception of Occupational Risk and Emotions.*

The 56<sup>th</sup> Annual Scientific Meeting of the Caribbean Health Research Council (CHRC) Guyana, April 2011.

### **Philip, J.**

*HIV-related Attitudes and Healthcare.*

The 36<sup>th</sup> Annual Caribbean Studies Association (CSA) Conference,

Theme: Building a New House: Towards New Caribbean Futures in an Age of Uncertainty, World Trade Centre, Curacao, May /June 2011.

### **Philip, J.**

*Health Practitioners' Attitudes toward Patients Living with HIV/AIDS.*

The 3<sup>rd</sup> Joint Meeting of CHART – CCAS – CDC, Theme: Harmonizing Quality Clinical Care and Laboratory Diagnostics on Behalf of Persons Most at Risk of HIV/AIDS in the Caribbean. Montego Bay, Jamaica, August 2011.

### **Philip, J.**

*Cognitive and Affective Factors Affecting Healthcare Students Attitudes Toward Patients living with HIV/AIDS.*

Caribbean HIV Conference, Theme: Strengthening Evidence to Achieve Sustainable Action. The Bahamas, November 2011.

### **Yearwood, R.**

*Fear of HIV/AIDS and perception of personal risk: Examining the impact on stigma towards persons living with HIV/AIDS (PLHIV) and intentions to be HIV tested.* The 36<sup>th</sup> Annual Caribbean Studies Association (CSA) Conference, Theme: Building a New House: Towards New Caribbean Futures in an Age of Uncertainty. World Trade Centre, Curacao, May/June 2011.

### **Yearwood, R.**

*Examining the impact on stigma towards persons living with HIV/AIDS (PLHIV) and intentions to be HIV tested.* The 3<sup>rd</sup> Joint Meeting of CHART – CCAS – CDC, Theme: Harmonizing Quality Clinical Care and Laboratory Diagnostics on Behalf of Persons Most at Risk of HIV/AIDS in the Caribbean. Montego Bay, Jamaica, August 2011.

# Caribbean Centre for Money & Finance (CCMF)

## Journal Articles

**Polius, D.T** and L. Sahely (2011) Monitoring Banking Sector Soundness in the Eastern Caribbean Currency Union: A Multivariate Data Analysis Approach. *International Research Journal of Applied Finance*, 2(2): 110-143.

**Alghalith, M.** and D.T. Poliuis (2011) A New Method of Estimating the Asset Rate of Return. *Theoretical Economics Letters*, 1(1):1-2.

## Conferences

**D. Poliuis**  
*Price Setting Behavior in Saint Lucia: Evidence from CPI Data.*  
Seminar on Price Formation and Inflation Dynamics in the Caribbean, Accra Beach Resort, Barbados, July 2010.

**D. Poliuis**  
*Monitoring Banking Sector Soundness in the Eastern Caribbean Currency Union: A Multivariate Data Analysis Approach.*  
Annual Monetary Studies Conference,  
Central Bank of Trinidad and Tobago, November 2010.

**D. Poliuis**  
*The Interaction between the Stock Market and Consumption: A Stochastic Factor Model.*  
Biennial Conference on Business Banking and Finance,  
Hilton Hotel, June 2011.

**D. Seerattan**  
*Spreads in the Jamaican Foreign Exchange Market during Tranquil and Volatile Periods.*  
42<sup>nd</sup> Annual Monetary Studies Conference, Central Bank of Trinidad and Tobago,  
Port of Spain, Trinidad and Tobago, November 2010.

**J. Jhinkoo**  
*Fiscal Convergence – Is it a necessary criterion for the CMU?*  
42<sup>nd</sup> Annual Monetary Studies Conference.  
Trinidad and Tobago, November 2010.

**J. Jhinkoo**  
*Substitution Effects across Saving Instruments in a Low Interest Rate Environment: The Case of Trinidad and Tobago.*  
43<sup>rd</sup> Annual Monetary Studies Conference.  
Barbados, November 2011.



# Centre for Health Economics (HEU)

## Conference Presentations & Publications

### K. Theodore

*Economic Impact of Climate Change on the Health Sector in Trinidad and Tobago* ECLAC.

Fourth Meeting of the High-Level Advisory Committee (HLAC) Review of the Economics of Climate Change in the Caribbean

Hyatt Regency Hotel, Trinidad and Tobago, April 2011.

### K. Theodore

Keynote Speaker - *The Economics of Non-communicable Diseases*

3<sup>rd</sup> Annual Conference of nephrology and Hypertension Caribbean Institute of Nephrology

Rose Hall Resort, Montego Bay, Jamaica, January 27- 30, 2011.

### K. Theodore. & H. Ali

*The Economics of Climate Change on the Health Sector* Departments of Economics and HEU Centre for Health Economics

Demas Rampersad Seminar Series

SALISES, November 2010.

### K. Theodore

*Towards a UWI Research Programme in Health*

Faculty of Medical Sciences Research Day

EWMSC Amphitheatre, November 2010.

### K. Theodore

Panel Chair- Session on, *Role of the Department of Economics in Charting the Way Forward for Caribbean Development*

Conference on the Economy (COTE) 2010

UWI, St. Augustine, October 2010.

### K. Theodore

*Responding to Non-communicable Diseases in Trinidad and Tobago*

Inter-American Development Bank (IDB) Social Protection and Health Network of the Regional Policy Dialogue on, "Improving Chronic Disease Prevention and Management in Latin America and the Caribbean" Santiago, Chile, September 30<sup>th</sup> to October 1<sup>st</sup> 2010

### K. Theodore, H. Ali, & T. Simon

*Economics of Climate Change: Towards a National Health Sector Assessment - Trinidad and Tobago.*

ECLAC

Meeting of the High-Level Advisory Committee (HLAC) Review of the Economics of Climate Change in the Caribbean

UNECLAC, Port-of-Spain Trinidad, September 2010.

### K. Theodore

*Equity and Health in Jamaica*

EquiLAC Countries Studies

PAHO

Mexico, August 2010.

### S. Lalta

*Controlling Health Care Costs in the Caribbean*

31<sup>st</sup> Annual Conference of the Insurance Association of the Caribbean,

Port of Spain, Trinidad and Tobago, June 2011.

### S. Lalta

*Financing Health Services in Jamaica, 1962—2062'-Lead Author*

Jointly with Jasper Barnett and Charlton McFarlane of the Ministry of Health Jamaica

SALISES, Jamaica Annual Research Conference,

SALISES Mona Campus Kingston, Jamaica, March 2011.

### H. Bailey

Results from a New *Visual Analogue Scale Protocol for EQ-5D Valuations.*

International Society for Pharmacoeconomics and Outcomes Research, 16<sup>th</sup> Annual International Meeting Baltimore, Maryland, May 2011

# Institute for Gender and Development Studies (IGDS)

## Peer Reviewed Publications

**Mohammed, P.** (2011). *Islands as Crossroads - Sustaining Cultural Diversity in Small Island Developing States*. The United Nations Educational, Scientific and Cultural Organization (UNESCO), pp. 129 – 140.

## Film Production

**Mohammed, P.** and **M. Mooleedhar**. *Seventeen Colours and a Sitar*, Director of Photography Reginal Pollard. Documentary film screened at the 2010 Trinidad and Tobago Film Festival on Friday, October 1<sup>st</sup>, 2010 at the Institute of Critical Thinking.

**Mohammed, P.** *The S Factor*, Documentary film. Edited by M. Mooleedhar for the Family Planning Association of Trinidad and Tobago on the rights of sex workers and policies pertaining to sex and sexuality. Featuring original interviews. 15 min, 2010.

## Books

**Hosein, G.** 'Activism in Academia: Twenty-first Century Caribbean Feminist Dilemmas', in *Gender Issues and Caribbean Scholarship: Interdisciplinary Perspectives*, edited by Eudine Barriteau, Cave Hill, Barbados: The University of the West Indies Press.

**Mohammed, P.** *An Oasis of Ideas, Learning and Leadership: UWI St Augustine at 50*, Segment 1, 2010.

**Mohammed, P.** *Gender-sensitive policy making in the Caribbean: A Manual 2<sup>nd</sup> Edition*. Prepared by P. Mohammed with J. Wedderburn (FES) and C. Babb (CPDC). Friedrich Ebert Stiftung (FES), Caribbean Office, Jamaica, Caribbean Policy Development Centre, Barbados with the IGDS, UWI, St. Augustine, 58 pages. 2010.

**Parpart, J.** 'Choosing Silence: rethinking voice, agency and women's empowerment', pp. 1-15; Naila Kabeer, "Voice, Agency and the Sounds of Silence: a comment on Jane L. Parpart's paper," pp. 16-20; Parpart, "Response to Kabeer," pp. 21-24. Working Paper #297, *Gendered Perspectives on International Development*, Center for Gender in a Global Context, Michigan State University, 2010.

**Parpart, J.** 'Preface: Engendering Global Restructuring in a Post-9/11 World', pp. xx – xxii, in M. M. and A. S. Runyon (eds.), *Gender and Global Restructuring: Sightings, Sites, and Resistances*, 2<sup>nd</sup> edition (London: Routledge, 2010).

**Parpart, J.** and H. Veltmeyer, 'Critical Development Studies: the Itinerary of an Idea' and Jane Parpart, 'Gender, empowerment and development', in Henry Veltmeyer, ed., *Tools for Change: a handbook for critical development studies* (Halifax: Fernwood Press, 2010).

**Parpart, J.** 'Masculinity, Poverty and the 'New Wars'', in S. Chant, ed., *The International Handbook on Gender and Poverty* (London: Elgar, 2010).

**Parpart, J.** 'Silenced Visions of Citizenship, Democracy and Nation: African MPs in Rhodesian Parliaments, 1963-1978' in Sabelo Ndlovu- Gatsheni and James Muzondidya, eds., *Redemptive or Grotesque Nationalism? Rethinking Contemporary Politics in Zimbabwe* (Oxford: Peter Lang, 2010).

**Pangsapa, P.** and M.J. Smith (2011) 'Transforming Labour Standards into Labour Rights' in *The Business of Human Rights*, A. Voiculescu and H. Yanacopulos (eds), (London: Zed, 2011). HB: ISBN-9781-84813-8636; PB: ISBN-9781-84813-8629; EB: ISBN-9781-84813-8643.

Smith, M. J. and **P. Pangsapa** (2011) 'Corporate Responsibility, Human Rights, International Labour Standards, and Environmental Sustainability' in *The Business of Human Rights*, A. Voiculescu and H. Yanacopulos (eds), (London: Zed, 2011).

**Reddock, R.** 'Changes in HIV needs identified by the National AIDS Hotline of Trinidad and Tobago', *Rev Panam Salud Publica*. Vol. 27, No. 2, pp. 93–102 (with Sandra D. Reid and Anders. L. Nielsen, 2010).

## Conferences Presentations

### K. Chan

*About the Media Campaign*  
Break the Silence: End Child Sexual Abuse Regional Conference  
UWI St. Augustine May 2011.

### G. Hosein

*An Introduction to the IDRC- Power, Politics and Gender Justice Research Project*  
Caribbean Women's Regional Colloquium on *Women Leaders as Agents of Change*  
UN Women, the Commonwealth, the Organization of American States, and the Caribbean Institute for Women in Leadership (CIWiL).  
Hilton Hotel, Port of Spain, Trinidad: 2011

### D. McFee

*Totin Feelings: Gendered Notions of Rank among Youth in Trinidad & Tobago*  
Caribbean Studies Association 36th Annual Conference, Curacao, May /June 2011

### P. Mohammed

*The Usual Suspects: Multicultural Policies and Change*  
Ministry of Arts and Multiculturalism National Symposium  
Centre of Excellence, Trinidad, October 2010.

### P. Mohammed

*Listening to Paintings: Cultural Mythologies of Gender in the Caribbean*  
Centre for Latin America and The Caribbean, for the CERLAC Public Lecture Series.  
York University, Toronto, Canada: November 2010.

### P. Mohammed

*Gender Politics and Global Democracy: Insights from the Caribbean Building Global Democracy* organized by Jan Van Scholte (Warwick U.) with Stiveni Halapua (Tonga), Xu Jiajun (China), Nadia Moustafa (Egypt) and discussant Richard Falk (Princeton University)  
International Studies Association Annual Convention on Global Governance: Political Authority in Transition  
Montreal, Canada, March 2011.

### T. Nickenig & T. Cooper

*Studying sex: Researching sexualities in the Caribbean, Challenges and Lessons from the field on the Caribbean Feminist Epistemologies, Theories and Methodologies*  
Panel  
IGDS Biennial Symposium *Contemporary Issues in Caribbean Research on Gender and Feminism*  
UWI Cave Hill Campus, Barbados February 2011.

### T. Nickenig

*A Political Economy of Sexuality in Trinidad and Tobago*  
UN Women for Building Responsive Policy: Gender, Sexual Culture and Implications for HIV in the Caribbean research project  
UN Women, Barbados, March 2011

### T. Nickenig

*Reflections on the Implementation of the Model*  
Break the Silence: End Child Sexual Abuse Regional Conference  
The Action Research Intervention Model  
UWI St. Augustine, May 2011.

### P. Pangsapa

*Searching for Belonging and Security: Transnational lifestyles and gender transformation among Trinidadian*  
Pan-European International Relations Conference, Stockholm, September 2010.

### P. Pangsapa

*Education as a Tool for Advocating Change*  
Education, Training, Advocacy: Pathway to Achieving Excellence  
Feature Address at ASPIRE's Annual International Women's Day Breakfast Meeting  
Port of Spain, Trinidad, March 2011

### J. Parpart

*Searching for Belonging and Security: Transnational Lifestyles and Gender Transformation among Trinidadians*  
Pan-European International Relations Conference  
Stockholm, September 2010.

### J. Parpart

*Exploring the Transformative Potential of Gender Mainstreaming*  
On Track with Gender project sponsored by the Ministry of Foreign Affairs of the Netherlands, Rabdboud University Nijmegen, the Netherlands and a number of NGOs  
The Hague, The Netherlands, February 2011

### J. Parpart

*Choosing Silence: Rethinking Voice, Agency and Women's Empowerment*  
Questioning Silences/Questioning Voice Panel  
New Geographies: Studies in Postcoloniality and Globalization International Conference  
UWI, St. Augustine, March 2011

**J. Roach Baptiste**

*Piety and subjectivity: Muslim women's subject formation  
Jamaat al Muslimeen in Trinidad* for the Analyzing  
Gendered Power Panel  
IGDS Biennial Symposium Contemporary Issues in  
Caribbean Research on Gender and Feminism  
UWI Cave Hill Campus, Barbados, February 2011

**J. Roach Baptiste**

*Race-ing and Gendering Violence*  
Caribbean Studies Association 36th Annual Conference  
Curacao, May/June 2011

**J. Roach Baptiste**

*Shahada: Young African-Trinidadian Women's Attempt to  
Reclaim Security and Space*  
Silence Gender and Agency in an Increasingly Violent  
World Panel  
Women's Worlds Conference, *Inclusions, Exclusions,  
Seclusions: Living in a Globalized World* Ontario,  
Canada, June 2011

**R. Reddock**

*Gender and the Movement for Caribbean Regional  
Integration: Back to the future*  
UWI-Commonwealth Conference  
UWI, Mona, Jamaica: February 2011

**R. Reddock**

*Understanding and Preventing Child Sexual Abuse and  
HIV Risk: Presentation of Research Findings and an  
Intervention Model*  
Break the Silence: End Child Sexual Abuse Regional  
Conference  
UWI St. Augustine, May 2011

**R. Reddock**

*Up Against a Wall: Muslim Women's Struggle to reclaim  
Masjid space in Trinidad and Tobago*  
South Asian Diaspora Conference  
UWI St. Augustine Campus: May/June 2011

**R. Reddock**

*Building a New House Towards New Caribbean Futures in  
an Age of Uncertainty,*  
An Inter-generational Sharing: Exploring Ageism and  
Diverse Femininities  
Caribbean Studies Association 36th Annual Conference  
Curacao, May/June 2011

**C. Thomas**

*Afro-Caribbean Village Poetics and the Discourse of  
Schizophrenic Time*  
Decoding Desire: Sexuality and Transgression in  
Imaginative Literature Panel  
New Geographies: Studies in Postcoloniality and  
Globalization Conference  
UWI, St. Augustine, March 2011

# Institute of International Relations (IIR)

## Journal Publications

**Ashworth, L.M.** (2010). Commonwealth Perspectives on International Relations. *International Affairs*, 86(5):1149-1165.

**Ashworth, L.M. & Shaw, T.M.** (2010). Comparative Commonwealth: an overlooked feature of global governance? *Third World Quarterly* 31(2): 333-346.

**Bishop, M, L.** (2011). "Coalescing for Change? Novel Coalitions in the UK and Trinidad and Tobago", *The Round Table*, 100, (412).

**Bishop, M, L.** (2010). "Tourism as a Small-State Development Strategy: Pier Pressure in the Eastern Caribbean?" *Progress in Development Studies*, 10, (2):99-114.

**Shaw, T.** (2010). "Commonwealth Perspectives on International Relations" with Lucian M. Ashworth *International Affairs* 86(5), 1149-1165.

**Shaw, T.** (2010). "Comparative Commonwealth: an overlooked feature of global governance?" *Third World Quarterly* 31(2), 2010: 333-346.

## Publications

**Anatol, M.** (2011). *Our Caribbean in the New Millennium: Caribbean and Latin American Integration: Caricom and Cuba: Challenges and Possibilities*, 4<sup>th</sup> International Workshop of the Faculty of Social Sciences, University of Oriente, Santiago de Cuba. Published in "IV Taller Científico Internacional Nuestro Caribe en el Nuevo Milenio", Faculty of Social Sciences, University of Oriente. ISBN Number: 978-959-207-407-1.

**Anatol, M.** (2011). *The Caribbean in the 21<sup>st</sup> Century: Economic Development of Small Island States in the 21<sup>st</sup> Century: The advantages of Hemispheric Cooperation Initiatives*, 4<sup>th</sup> International Conference of the University of Havana, Cuba. Published in "El Caribe en el siglo XXI: Coyunturas, Perspectivas y Desafíos" (The Caribbean in the 21st Century: Joins, Prospects and Challenges).

**Anatol, M., Kirton, R.M. and Niki Braithwaite.** (2010). "The Political Culture of Democracy in Trinidad and Tobago 2010: Democracy in Action", Inter American Development Bank, Trinidad.

**Anatol, M., Kirton, R.M. and Braithwaite, N.** (2010). "The Political Culture of Democracy in Suriname 2010: Democracy in Action", InterAmerican Development Bank, Trinidad.

## Books

Shaw, T (2011). *Inter-American Cooperation at a Crossroads*, in Gordon Mace & Andrew F Cooper (eds), London: Palgrave Macmillan for CIGI.

## Books Reviewed

Mohammed, Debbie A. (2010). Governance in the non-independent Caribbean: challenges and opportunities in the twenty-first century. Edited by Peter Clegg and Emilio Pantojas-Garcia. *The Round Table: The Commonwealth Journal of International Affairs*, Ian Randle publication 2009.

## Monographs

**Bishop, M.L.** and Payne, A.J. (2010) Caribbean Regional Governance and the Sovereignty/Statehood Problem, *The Centre for International Governance Innovation Caribbean Paper No. 8*, Waterloo, Canada. [www.cigionline.org](http://www.cigionline.org).

## Non-Refereed Reports

**Bishop, M, L., Girvan, N., Shaw, T, M., Kirton, R.M., Mohammed, D., Scobie, M., Anatol, M., and Mike, S.** (2011). "Caribbean Regional Integration." Report published by the UWI Institute of International Relations in conjunction with the UK Department for International Development (DFID).

**Braithwaite, T.** (2011). "Capturing Caribbean Publications: the Beneficial Role of the Regional ISBN Agency", *Library Review*, 60(1):15 – 23. <http://www.emeraldinsight.com/10.1108/00242531111100540>

**Kirton, M. & Roach, K.** (2010). "Bridging Transportation Gaps in Latin America and The Caribbean: Prospects and Potential for Maritime Transportation Cooperation in Trinidad and Tobago and Venezuela" in G. Rigobert and A. Asam (eds.) *World Development Outlook 2010*, Sussex, WASD Publications.

**Kirton, M.** (2010). "Security and Confidence Building Measures within the Framework of UNASUR and CARICOM" in Anton De Kom University of Suriname, *Enhancing security in The Hemisphere, Building Security and Strengthening Cooperation; A Multidimensional Approach to Security*, Leysweg, IIR. ADEKUS, Leysweg, Suriname.

**Kirton, M., Anatol, M. & Braithwaite, N.** (2010). "The Political Culture of Democracy in Trinidad and Tobago in 2010: Democracy in Action" Report. InterAmerican Development Bank, Trinidad

**Kirton, M., Anatol, M. & Braithwaite, N.** (2010). "The Political Culture of Democracy in Suriname". Report. Inter American Development Bank, Trinidad

## Articles/Papers in Non-Refereed Publications

**Montoute, A.** (2011). Civil Society Participation in EPA Implementation: How to make the joint CARIFORUM EC Consultative Committee work effectively? *ECDPM Discussion Paper 119*. Maastricht: ECDPM.

**Montoute, A.** (2011). Emerging players in the Caribbean: What implications for the Caribbean, their relations with the EU and the ACP. *ECDPM Discussion Paper 116*. Maastricht: ECDPM.

## Conference Presentations

**M. Bishop** and V. Muzaka  
"The End of Trade Multilateralism"

British International Studies Association (BISA) Annual Conference,  
Manchester, UK, April 2011.

**M. Bishop**, T. Heron and A. Payne  
"Caribbean Development Alternatives and the CARIFORUM-European Union Economic Partnership Agreement,"  
International Studies Association Convention,  
Montréal, Canada, March 2011.

**Mohammed, D.**  
"Increasing the Caribbean Community Exports under the EPA Policy Considerations for Building Regional Competitiveness."  
International Studies Association Annual Convention,  
Montreal, March 2011

**Scobie, M.**  
*Caribbean Sea and Environmental Law*  
Sustainable Development of Coastal Communities  
Challenges and Solutions  
Sir Arthur Lewis Institute for Social and Economic Studies (SALISES), June 2011.

**Shaw, T.**  
"What Prospects for Regional Development/Security in Africa and the Caribbean in a G20 Era?" Beijing Forum:  
"Challenge, Responsibility, and Vision: We are the Youth of the World."  
Beijing, China, November 2010.



# Seismic Research Centre (SRC)

## Journal Publications

Bozzoni, F., Corigliano, M., Lai, C.G., **Salazar, W.**, Scandella, L., Zuccolo, E., **Latchman, J.**, **Lynch, L.**, and **Robertson, R.** (2011) Probabilistic seismic hazard assessment at the Eastern Caribbean islands. *Bulletin of the Seismological Society of America*, 101(5):2499–2521, doi: 10.1785/0120100208.

Cioni, R., Bertagnini, A., Andronico, D., **Cole P.D.**, Mandula, F. (2011) The 512 AD eruption of Vesuvius: complex dynamics of a small scale subplinian event. *Bulletin of Volcanology*, 73(7): 789-810, doi: 10.1007/s00445-011-0454-3.

D’Oriano, C., Cioni, R., Bertagnini, A., Andronico, D., **Cole P.D.** (2011) Dynamics of Ash-dominated eruptions at Vesuvius: the post-512AD AS1a event. *Bulletin of Volcanology*, 73(6): 699-715, doi: 10.1007/s00445-010-0432-1.

**Fournier, N.**, Moreau, M., & **Robertson, R.** (2011) Disappearance of a crater lake: implications for potential explosivity at Soufriere volcano, St. Vincent, Lesser Antilles. *Bulletin of Volcanology*, 73(5): 543-555, doi: 10.1007/s00445-010-0422-3.

Gottsmann, J., De Angelis, S., **Fournier, N.**, Van Camp, M., Sacks, S., Linde, A., Ripepe, M. (2011) On the geophysical fingerprint of Vulcanian explosions. *Earth and Planetary Science Letters*, 306(1&2): 98-104, doi: 10.1016/j.epsl.2011.03.035.

Joseph, E. P., Fournier, N., Lindsay, J.M., Fischer, T.P. (2011) Gas and water geochemistry of geothermal systems in Dominica, Lesser Antilles island arc. *Journal of Volcanology and Geothermal Research*, 206(1&2): 1-14, doi: 10.1016/j.jvolgeores.2011.06.007.

**Latchman, J.L.**, Morgan, F.D.O., Aspinall, W.P. and Gay, D. (2011) Magnitude production imbalances and the present seismogenicity state of the San Andreas Fault system. *Tectonophysics*. 511: 134-147, doi: 10.1016/j.tecto.2011.09.011.

Roman, D.C., Savage, M.K., Arnold, R., **Latchman, J.L.** and DeAngelis, S. (2011). Analysis and forward modeling of seismic anisotropy during the ongoing eruption of the Soufrière Hills Volcano, Montserrat

(1996-2007). *Journal of Geophysical Research*. 116: (B03201) doi: 10.1029/2010JB007667.

Vargas Franco, R.D., Thouret, J.-C., Delaite, G., van Westen, C., Sheridan, M.F., Siebe, C., Mariño, J., Souriot, T., and **Stinton, A.** (2010). Mapping and assessing volcanic and flood hazards and risks, with emphasis on lahars, in Arequipa, Peru. *Geology Society America Special Paper*, 464: 265-280, doi:10.1130/2010.2464 (13).

Wadge, G., **Cole, P.**, **Stinton, A.**, Komorowski, J.-C., **Stewart, R.**, and Toombs, A.C. (2011). Rapid topographic change measured by high-resolution satellite radar at Soufrière Hills Volcano, Montserrat, 2008-2010. *Journal of Volcanology and Geothermal Research*, 199(1&2):142-152, doi:10.1016/j.jvolgeores.2010.10.011.

## Invited Reviews

**Latchman, J.L.** 2011. V. Pisarenko and M. Rodkin: Heavy-Tailed Distributions in Disaster Analysis. *Mathematical Geosciences*. 43(4): 502-502, doi: 10.1007/s11004-011-9339-4 (Book Review).

## Conferences

**R. Robertson, W. Salazar, M. Higgins, C. Le Barrie, L. Lynch, J. Latchman, O. Graham, M. Johnson, L. Brown.** *Development of a Caribbean Risk Atlas for Earthquake Hazards.* 5<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management; Oral Presentation, Montego Bay, Jamaica, December, 2010.

**W. Salazar, J. Latchman, L. Lynch, R. Robertson,** F. Bozzoni, M. Corigliano, C.G. Lai, L. Scandella, E. Zuccolo. *Probabilistic Seismic Hazard Assessment of the Eastern Caribbean Islands.* 5<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management; Poster Presentation, Montego Bay, Jamaica, December, 2010.

**R. Robertson, L. Lynch, J. Latchman, W. Salazar, S. Edwards, C. Ash, O. Graham, C. Le Barrie, M. Johnson.** *Earthquake Safety in Trinidad and Tobago – A call for action!* 5<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management; Oral Presentation, Montego Bay, Jamaica, December, 2010.

**A . Stinton and P. Cole**

*Localised coarse lithic breccias from channelised pyroclastic density currents, Soufrière Hills Volcano, Montserrat*, Abstract V11E-04;  
Oral Presentation Fall Meeting, AGU,  
San Francisco, Calif., December, 2010.

**R. Robertson**

*Eastern Caribbean Seismograph Networks. Geophysical Hazards and Plate Boundary Processes in Central America, Mexico and the Caribbean: A Workshop to Build Seismological Collaboration and Capacity*, Oral Presentation  
Heredia, Costa Rica, October, 2010.

**M. Bernstein, E.S. Calder, P.D. Cole, A.J. Stinton**

*The 8 January 2010 Vulcanian explosion at Soufrière Hills, Montserrat: Setting and Observations from Thermal and Video Imaging*.  
Soufrière Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat, April 2011.

**Christopher T, Barclay J, Humphreys M, Plail M, Cole PD, Hards V, Loughlin S.C, Henton S.** *Petrological and Geochemical variations at the Soufrière Hills Volcano 2000-2010.*

Soufriere Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat, April 2011.

**Christopher T, Edmonds M, H. Odbert, Hards V, Cole P.D, Loughlin S.C.**

*Magma Chamber Dynamics as revealed by the SO<sub>2</sub> flux variation at Soufriere Hills volcano 2002-2010.*  
Soufriere Hills Volcano 15 Years on conference, MVO,  
Oral Presentation,  
Montserrat, April 2011.

**Christopher T, Barclay J, Humphreys M, Plail M, Cole PD, Hards V, Loughlin SC, Henton S.** *Petrological and Geochemical variations at the Soufrière Hills Volcano 2000-2010.*

Soufrière Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat, April 2011.

**Cole PD Stinton AJ Odbert HM, Bernstein M, Stewart RC.** *Relatively large volume pumice poor Vulcanian explosions at Soufriere Hills Volcano, Montserrat.*

Soufrière Hills Volcano 15 Years on conference, MVO,  
Oral Presentation  
Montserrat, April 2011.

**Cole PD, Stinton AJ, Odbert HO Stewart RC.**

*Pyroclastic density currents associated with laterally directed pumiceous explosions at Soufriere Hills, Montserrat.*

Soufrière Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat, April 2011.

**Cole P, A. Stinton, Odbert, H. and R. Stewart.**

*Pyroclastic density currents associated with laterally directed pumiceous explosions at Soufriere Hills, Montserrat.*

Abstract V11E-06, 2010 Fall Meeting, AGU, Oral  
Presentation,  
San Francisco, Calif., 2010.

**Duarte E, Fernández E Cole PD.**

*The Recent Pyroclastic Flows from Arenal Volcano: Lessons and comparisons.*

Soufrière Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat, W.I., 4-8 April 2011.

**Froude, MJ Barclay, J, Simmons P, Darnell A, Stone, J, Cole PD.**

*15 years of geomorphic evolution: reviewing patterns of lahar deposition in the Belham River Valley, Montserrat.*

Soufrière Hills Volcano 15 Years on conference, MVO,  
Poster Presentation,  
Montserrat. W.I., April 2011.

**Joseph E.**

*Geothermal monitoring as a tool for volcanic surveillance, and monitoring health hazards from volcanic emissions.*

INEES Geothermal Energy Workshop, Physics  
Department, Oral Presentation,  
UWI, St. Augustine, January, 2011.

**Joseph E, Fournier N, Lindsay J, and Fischer T.**

*Application of geothermal monitoring for volcanic surveillance in the Lesser Antilles.* Soufrière Hills Volcano 15 Years on conference, MVO, Oral Presentation,  
Montserrat, W.I., April 2011.

**Joseph E**, Fournier N, Lindsay J, and Fischer T.  
*Geochemical investigations of volcanic-hydrothermal systems of the Lesser Antilles.*  
IUGG 2011 General Assembly, Oral Presentation,  
Melbourne, Australia, June/ July 2011

**Latchman J.**

*Long-range earthquake triggering near Tobago, West Indies: precursory indicators.* International Union of Geodesy and Geophysics Conference, Oral Presentation, Melbourne, Australia, June/ July 2011

**Odbert HM, Stewart RC, Cole PD, Stinton AJ**, Bass V, Christopher T, Syers R, Ripepe M., Hughes M.  
*The thrills and spills of Phase 5: Observations of the Soufrière Hills Volcano, 2009-2010.* Soufrière Hills Volcano 15 Years on conference, MVO, Oral Presentation, Montserrat, W.I., April 2011.

**Odbert H., R. Stewart, V. Bass, P. Cole, A. Stinton, T. Christopher**, & M. Ripepe. *Multiparameter Observations of Cyclic Eruptive Activity on Montserrat, 2009-2010*, Abstract V31E-03, 2010 Fall Meeting, AGU, Oral Presentation, San Francisco, Calif., Dec. 2010.

**Robertson D, Joseph E**, Fournier N, and Woith H.  
*Relating lake level and lake temperature to hydrological loading for the Boiling Lake, Dominica.* IUGG 2011 General Assembly, Poster, Melbourne, Australia, June/ July 2011

**Richard R. E.A.**, Lynch, L. L., Latchman, J.L., Stewart, R., Salazar, W., Joseph, E.P., Edwards, S.  
*A Sustainable Port of Spain in the Context of Seismicity in Trinidad and Tobago.*  
Symposium in Commemoration of the 97<sup>th</sup> Anniversary of the Restoration of Civic Rights to the City of Port of Spain, June 2011.  
Oral Presentation. 13p,

Jan Lindsay, Axel Schmitt, Robert Trumbull, Daniel F. Stockli, **Richie Robertson**, Tracy Howe, Phil Shane.  
*Evolution, time scales and hazards at large silicic systems in island arcs: insights from the Soufriere Volcanic Complex, Saint Lucia*, Oral Presentation, IUGG, Australia, 2011.

Stinton AJ, **Cole PD, Odbert HM**, Stewart RC.  
*Overview of the 11 February 2010 partial dome collapse event at the Soufrière Hills Volcano.* Soufrière Hills Volcano 15 Years on conference, MVO, Oral Presentation, Montserrat, W.I., 4-8 April 2011.

Stone J, Aspinall W, **Odbert HM, Cole PD.**  
*Development of in-house elicitation and risk assessment capabilities at Montserrat Volcano Observatory.*  
Soufrière Hills Volcano 15 Years on conference, MVO, Oral Presentation, Montserrat, W.I., 4-8 April 2011.

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