

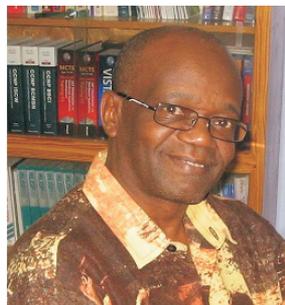
DEPARTMENT OF COMPUTING

Ezra K. Mugisa, PhD, DIC, CITP – Head of Department

WORK OF THE DEPARTMENT

Curriculum Review

The Department continued its curriculum reform, with the revision of second year courses from four to three credit courses. Additionally, two internship courses open to second and final year students were introduced. Students can choose to complete six or three credits by working with one of our industry partners. The first cohort of interns successfully took the course in semester II of the 2011/2012 academic year.



Western Jamaica Campus

The expansion of our programmes continues as approval was given to offer the BSc in Information Technology at the UWI Mona's Western Jamaica Campus (WJC). Approval has also been given to appoint an assistant lecturer, Mr. Ricardo Anderson, to provide tutorial support at WJC.

Research Day Activities

The UWI Cardiac Surgery Simulator was the highlight of the UWI 2012 Research Days, and attracted a lot of media attention, both locally and regionally. Dr. Daniel Coore received the **Principal's award for Innovation** (shared with Dr. Paul Ramphal) at the Research Day Awards Ceremony.

Staffing

Three adjunct professors were added to the cadre of academic staff; Professor Kweku-Muata Osei-Bryson of Virginia Commonwealth University, Professor Robert France of Colorado State University and Dr. Suresh Sankaranarayanan, Associate Professor at Institut Teknologi Brunei. The department has benefited from these collaborations. Professor Osei-Bryson has strengthened our research programme by meeting with staff who supervise graduate students and with the graduate students themselves to offer advice based on his own experiences as a prolific researcher. Dr. Sankaranarayanan and Professor France continue to supervise graduate students. It is hoped that these senior colleagues will participate in curriculum design and development, in developing innovative approaches to course design and delivery and ensuring that teaching design and delivery comply with the quality and educational standards and regulations of the department.

In order to fully support the expanded programmes of the department, we have sought to upgrade the two secretarial positions to those of administrative assistants.

PAPERS PRESENTED

- **Daniel Coore**, “Jamaican Technology Impacting the World: The story of the UWI cardiac surgery simulator”, Caribbean Growth Forum (CGF) Initiative Launch Event. Kingston, Jamaica. June 18-19, 2012.
- **A.G. Hamilton-Taylor**, “Using Interactive Computing in Education and Preservation of African Languages and Indigenous Culture.” The Academy of African Languages and Science, University of South Africa (UNISA), Pretoria, South Africa, May 29, 2012.
- **A.G. Hamilton-Taylor**, “Multimedia Education for the Preservation of African Culture.” An Evening with Dr. Ashley Hamilton-Taylor for Central Johannesburg College, Sunnyside

Park Hotel. Carse O' Gowrie, Johannesburg, South Africa, May 29, 2012.

Peer-reviewed Conference Proceedings

- **Matthew Budram, Daniel Coore.** Automating fluid flow in a cardiac surgery simulator. Proceedings of IEEE SoutheastCon 2012. DOI: 10.1109/SECON.2012.6196961. Orlando, FL, USA. March, 2012
- **Beckford, Carl; Mugisa, Ezra; Brissett, Daine; Carter, Kadira; Jaggon, Christopher and Oneil, Marlon** (2012) Ricoché, A Student-Centric Growth-Oriented Examination Scheduling Algorithm. Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2012: AACE (EDMEDIA 2012), Denver, USA, June 2012.
- **D Gentles and S Suresh,** “Biometric Secured Mobile Voting”, Proceedings of Second IEEE/IFIP Asian Himalayas International Conference on Internet, Kathmandu, Nepal, Nov 4-6, 2011. ISBN: 978-1-4577-1088-9
- **A.G. Hamilton-Taylor,** “A Framework for Innovative ICT Curriculum for Africa and the Diaspora.”, Proceedings of *Second Scramble for Africa Conference*, Africa Institute of South Africa, May 23-24, 2012, Pretoria, South Africa.

PUBLICATIONS

Journal Articles

- * **C Dixon and S Suresh,** “Intelligent Agent based Mobile Real Estate Search and Booking”, *International Journal of Embedded Systems and Computer Engineering*, Vol.4 (1), pp. 43-64, Serial publications, 2012
- * **D Parchment and S Suresh,** “Intelligent Agent based Student Staff Scheduling System”, *International Journal of Computer*

Information System and Industrial Management, Vol.5, pp. 383-404, Dynamic Publishers, 2012

- * **D Gentles** and **S Suresh**, “Application of Biometrics in Mobile Voting”, *International Journal of Computer Networks and Information Security*, Vol.4 (7), pp. 57-68, MECS publishers, 2012.
- * **F Garvey** and **S Suresh**, “Intelligent Agent based Flight Search and Booking System”, *International Journal of Advanced Computer Science and Applications*, Vol.4(1), pp. 12-28, SAI Publishers, 2012
- * **W Lawrence** and **S Suresh**, “Smart Agent learning for Hotel Search System- Android Environment”, *International Journal Information Technology and Computers Science*, Vol.4(9), pp.9-21, Modern Education & Computer Science publisher (MECS), 2012
- * **W Lawrence** and **S Suresh**, “Application of Biometric Security in Agent based Hotel Booking System- Android Environment”, *International Journal Information Engineering and Electronic Business*, Vol. 4(3), pp.64-75, MECS Publishers, 2012
- * **S Bogle** and **S Suresh**, “Job Search System in Android Environment – Application of Intelligent Agents”, *International Journal of Information Science and Techniques*, Vol.2(3), pp. 1-17, AIRCC publishers, 2012
- * **S Bogle** and **S Suresh**, “Biometric Application of Intelligent Agents in Fake Documentation Detection of job Applicants”, *International Journal of Computer Science, Engineering and Information Technology*, Vol.2(1), pp.71-90, AIRCC publishers, 2012
- * **S Suresh** and **L Cox**, “Intelligent Agent based University Search and Admission System - Android Environment”, *International Journal of Computer Information System and Industrial Management*, Vol.4, pp. 35-42, Dynamic Publishers Inc., USA, 2012

INCOME GENERATION

We continued to run a number of income-generating activities as shown in the figure below (all figures are J\$):

Programme/Activity	Income	Expenditure	Net Income
MSc Computer Science	11,550,000	7,920,758	3,629,242
MSc CBMIS	–	–	Not available
Cisco Networking Academy	4,032,500	3,823,836	108,664
Summer School	2,113,429	962,300	1,151,129

The revised MSc in Computer Science accepted eighteen new students. Our Cisco CCNA Professional Certification programme continues to grow. Five new student cohorts began training in this academic year. A shortage of space continues to limit our ability to introduce the other professional certification programmes we have proposed.

PUBLIC SERVICE

Curtis Busby-Earle

- Member, Board of Governors, St. Hugh's Preparatory School, Kingston
- President, PTA, St. Hugh's Preparatory School, Kingston

Ashley Hamilton-Taylor

- Board member, The Bob Andy Song Foundation, 2012

Paul Gaynor

- Director, Sunset Optimist Club of New Kingston

Ezra K. Mugisa

- Member, UTECH School of Computing and Information Technology Advisory Committee
- Reviewer for IET Software

Eyton Ferguson

- Public Relations Officer, Golden Meadows Citizens Association, St. Andrew

Gunjan Mansingh

- Member, SALISES 50/50 IS Cluster committee
- Reviewer, INFORMs – *Journal of Computing*
- Reviewer, *Knowledge Management Research and Practice Journal*
- Reviewer, *Hawaii International Conference on System Sciences (HICSS)*

STUDENTS

Student Throughput

The table below shows a breakdown of the numbers of students who graduated from the various programmes we offer:

Programme	BA (CS)			BSc (CS)			BSc (CSO)			MSc			PhD		
Faculty	FHE			FPAS			FPAS			FPAS			FPAS		
Gender	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1st Class		1	1	5	3	8									
2nd Class (upper)	1	2	3	4	2	6		1	1						
2nd Class (lower)		4	4	11	9	20									
Pass	2		2	5	1	6	1		1	3		3	1		1
Total	3	7	10	25	15	40	1	1	2	3		3	1		1

Student Awards and Prizes

Matthew Budram, Aston Hamilton, Marc Holmes and Jonathan Smith placed second in the tertiary division of the Ministry of Education's inaugural Blackberry Developers' Competition 2011. The Team was supervised by Dr. Ashley Hamilton-Taylor.

Jean-Pierre Smith won the Karl Robinson Award for best performance in Computing Courses up to semester 1 of year 3 in the programme.