The Department of Computing continues to offer multiple undergraduate and postgraduate programmes. We regularly revise our undergraduate programmes to keep them in line with international curriculum recommendations for computing. In 2016/2017 we started offering the new and revised minors in Information Technology, Software Engineering and Computer Science. Additionally, in 2016/2017 our objective was to strengthen the Masters programmes and offer a new programme, B.Sc. in Software Engineering. The Masters in Computer Science (M.Sc.) and the Masters in Computer Based Information Systems (CBMIS) – offered jointly with Mona School of Business and Management) were revised and a set of new courses were designed to be delivered in the academic year 2017/2018.

The academic year 2016/2017 was a productive one as our undergraduate student numbers continue to grow despite infrastructural problems. Staff
members continue to publish in peer reviewed journals, books, book chapters and conference proceeding; maintain good teaching scores and engage in various professional activities. Overall the department is growing stronger as most of the staff members now have a PhD degree or are close to completion.

In July 2017, Professor Osei-Bryson, the visiting professor to the department, spent two weeks mentoring and advising the research students and young staff members. We have benefited tremendously from this relationship, as he continues to be a valuable resource by assisting us with identifying external examiners and supervising MPhil and PhD students.

Programmes

The BSc Software Engineering (Mobile Application Development) programme offered by the newly established UWI-China Institute of Information Technology (UWICIIT) through the Faculties of Science and Technology, in collaboration with the Global Institute of Software Technology (GIST) of Suzhou, China was introduced in 2016/2017. This programme started with 28 full time students at the Mona Campus and 8 full time students at the Cave Hill Campus. Six (6) courses were delivered via streaming from Mona to Cave Hill and four (4) from Cave Hill to Mona. Streaming of these courses was a challenge due to a lack of proper technical infrastructure primarily on Mona Campus. The programme is one of the first initiatives of the Single Virtual University (SVU) initiative. Head of the Department, Dr. Ezra Mugisa, travelled to China with the Dean of the Faculty, Professor Paul Reese, Vice-Chancellor, Professor Sir Hilary Beckles and other senior members from the University to sign a MOU with GIST in Suzhou and Jiangsu University China, to establish the Jiangsu University Suzhou Caribbean Institute.

We continue to offer the BSc IT programme at WJC. However, the number of students has not grown as we would have liked. We have identified a number of challenges that may have contributed to this situation and are seeking to rectify them in order to get a substantial intake in 2017/18.
We continue to encounter serious challenges in accessing streaming equipment for delivery of our courses to WJC and to Cave hill campus. In this regard we are looking at using alternative technologies to give our students a high quality experience.

The student numbers registered in the various undergraduate and postgraduate courses and the number of students graduating are given in tables 1–2, respectively. In table 2 graduating numbers are also separated into Males/Females. The number of graduates is up from 59 in 2015–2016 to 79 in 2016/2017, a growth of 33%.

**Table 1:** Student numbers registered in Computing in last five years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory</td>
<td>352/367</td>
<td>387/355</td>
<td>463/433</td>
<td>528/433</td>
<td>521/470</td>
</tr>
<tr>
<td>Advanced</td>
<td>150/179</td>
<td>190/203</td>
<td>227/240</td>
<td>282/281</td>
<td>318/299</td>
</tr>
<tr>
<td>Postgraduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.Sc. Comp.Sci</td>
<td>58</td>
<td>67</td>
<td>64</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>M.Sc. CBMIS</td>
<td>37</td>
<td>29</td>
<td>15</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>PGDIT</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>17</td>
<td>n/a</td>
</tr>
<tr>
<td>M.Phil.</td>
<td>12</td>
<td>12</td>
<td>15</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>PhD</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

**Table 2:** Students graduating across majors in 2016/2017

<table>
<thead>
<tr>
<th>Major</th>
<th>First Class M/F</th>
<th>Upper Second M/F</th>
<th>Lower Second M/F</th>
<th>Pass M/F</th>
<th>Total M/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>4/5</td>
<td>16/5</td>
<td>11/4</td>
<td>11/2</td>
<td>42/16</td>
</tr>
<tr>
<td>Computer Systems Engineering</td>
<td>2/0</td>
<td>2/0</td>
<td>1/0</td>
<td>1/0</td>
<td>6/0</td>
</tr>
<tr>
<td>Information Technology</td>
<td>0/0</td>
<td>1/5</td>
<td>4/1</td>
<td>0/1</td>
<td>5/7</td>
</tr>
<tr>
<td>Software Engineering</td>
<td>0/0</td>
<td>2/0</td>
<td>1/0</td>
<td>0/0</td>
<td>3/0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6/5</strong></td>
<td><strong>21/10</strong></td>
<td><strong>17/5</strong></td>
<td><strong>13/3</strong></td>
<td><strong>56/23 = 79</strong></td>
</tr>
</tbody>
</table>
Outreach and Public Service

The department participated in the Orientation village and Science in the Garden (at Hope Gardens) with the aid of the Computing Society. The outreach coordinator, Dr. Paul Gaynor, with student volunteers participated in the Eastern Fair with a visit to Morant Bay High School and other schools in that region. The department also participated in Relay for Life and demonstrated a prototype of a Sign Language Converter. Mr. Ricardo Anderson, the lecturer at WJC, hosted several CAPE Computer Science Seminars both for students and computer science teachers in Western Jamaica parishes from October 2016–April 2017.

International Girls in ICT Day – Dr. Gunjan Mansingh and Dr. Claudine Allen along with the female students in the department participated in the activities organized for Girls in ICT Day Caribbean Hackathon 2017 which was held on April 27 2017. The event had 70,753 viewers across 10 countries. Dr. Mansingh was a speaker at the event and also the moderator for a panel – Conversation on “The Future of Women in Tech – Driving Business Innovation”. Some female students acted as mentors for high school teams and others participated in the Hackathon challenge. The UWI computing female students played an important role in helping the organizers in refining the hackathon challenge and acted as a think tank for various activities. Ms. Shanice Bryan, a third year student, won a tablet for the best volunteer for the leadership she displayed in assisting the organizers.

Computing Society – The Computing Society students developed an Android mobile app for the Faculty of Science and Technology under the mentorship of Dr. Gunjan Mansingh. The students developed the first version of the app within a month and the app was put into production in September 2016. This app could be downloaded by incoming students to access information related to the Faculty.

Income Generation

We continued to run a number of income-generating activities as shown in table 3.
Table 3: Income Generation in the Department

<table>
<thead>
<tr>
<th>Programme/Activity</th>
<th>Income</th>
<th>Expenditure</th>
<th>Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc. Computer Science</td>
<td>4,332,000.00</td>
<td>7,171,409.97</td>
<td>-3,385,429.97</td>
</tr>
<tr>
<td>Summer School</td>
<td>2,459,674.00</td>
<td>1,838,186.52</td>
<td>621,487.48</td>
</tr>
<tr>
<td>CISCO Networking Academy</td>
<td>1,586,642.94</td>
<td>1,428,733.55</td>
<td>157,909.39</td>
</tr>
<tr>
<td>Consultancy</td>
<td>476,443.16</td>
<td>57,740.00</td>
<td>418,703.16</td>
</tr>
</tbody>
</table>

**Awards and Prizes**

- Professor Daniel Coore received the Silver Musgrave Medal for Science (2017).
- The Karl Robinson Award was won by Ms. Kimberly Soares. The award is given to the student with the highest average in the first year, second year and semester I of the third year Computer Science courses.

**PUBLICATIONS AND PRESENTATIONS**

The department’s research output amounted to 20 refereed publications in journals and conference proceedings as indicated below and one (1) edited book.

**Book and Book Chapters**

Journals


Conference Proceedings (Peer-Reviewed)


Monograph


Invited talks and workshops

Gunjan Mansingh

- Conducted a 5 day course on “The Art and Science of Data Visualization” for National Commercial Bank, December 12–16, 2016.

PROFESSIONAL AND SCHOLARLY ACTIVITIES

Allen, Claudine

- Panel Chair for CSEC IT Syllabus Review 2017–2022.
- Reviewer: Caribbean Educational Research Journal, School of Education, University of the West Indies, Cave Hill Campus.

Anderson, Ricardo

- Reviewer: Knowledge Management for Research and Practice, Springer.

Busby-Earle, Curtis

Coore, Daniel

- Attended a 3 day Boot Camp to provide technical assistance for the use of the UWI Cardiac Surgery Simulator (UWICSS) at the 9th annual Cardiothoracic Boot Camp sponsored by the Thoracic Surgery Director’s Association (TSDA).
- Reviewer: Annual workshop “Engineering Complex Adaptive Systems (eCAS)”

Ewedafe, Simon

- Reviewer: Editorial Board Member for International Journal of Modern Computer Networks (IJMCN).
- International Scientific Committee and Editorial Review Board on Computer and Information Engineering.
- Editor for Informatics Engineering and Information Science

Fokum, Daniel

- External assessor for the University Council of Jamaica (UCJ). Examined the Computer
- Proctor for IEEEXtreme Programming Competition, October 2016.
Mansingh, Gunjan

Reviewer:

• Member of Editorial Review Board of *International Journal of Knowledge Management*, IGI Publishing.
• European Conference on Information Systems (ECIS), AIS Conference