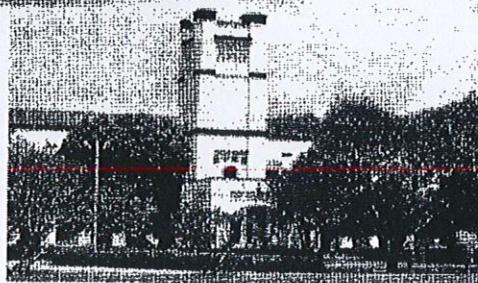
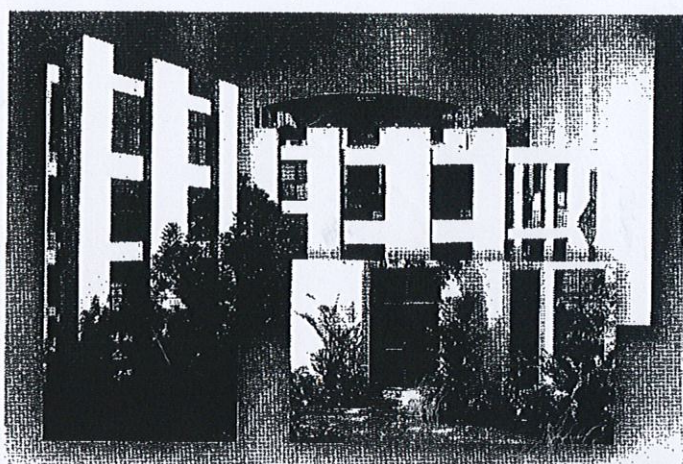




# Annual Report 2015



UNIVERSITY OF COLOMBO  
**SCHOOL OF COMPUTING**



# UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

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# **UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

## **ANNUAL REPORT AND ACCOUNTS FOR 2015**

### **VISION & MISSION**

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#### **Vision Statement**

*Be a Global Leader in Computing, Advancing the Frontiers of new knowledge through Learning and Research.*

#### **Mission Statement**

*To advance and enhance computing knowledge, fostering global strategic alliances, promoting cross disciplinary research, producing socially responsible professionals with entrepreneurial skills, leadership qualities and integrity contributing to position the country as a knowledge hub in the region.*

#### **Goals**

1. To be a centre of excellence in teaching and learning in computing
2. To extend boundaries and promote cross disciplinary research in computing
3. To create socially responsible professionals with entrepreneurial skills, leadership qualities and integrity
4. To establish and maintain conducive environment for productive work and career enhancement
5. To enhance the institutional image
6. To empower the society through ICT
7. To make significant contributions and to provide professional services to position the country as a knowledge hub



## DIRECTOR'S REVIEW

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As a centre of Higher Learning in Computing the UCSC has continued to train students at undergraduate and postgraduate levels as well as those in the IT industry with the latest developments in this field. 770 internal undergraduates enrolled for the four degrees programmes offered via the UGC intake based on the revised curriculum. Beside 997 science graduates were trained in use of IT in respective scientific domains and 1,890 students were provided the opportunity to do the BIT degree as an external student. 452 students were trained for the master's degree while 51 enrolled for research degrees. From those who enrolled in previous years 227 completed degrees at undergraduate level and 121 at postgraduate level including 1 PhD and 3 MPhil graduates.

Masters and BIT external degree were the two main income sources of the UCSC which contributed towards 95m and 70m income respectively. Although UGC promised to give 100m for the building project this money was not allocated. However UCSC invested that amount from generated income to ensure the building work continued and 82m spent. 20m on equipment as Government grant for both was just 45m. UCSC contributed 6.1m toward staff participation at international conferences, 5m towards staff insurance scheme, 4.1m towards student distress fund and 5m on the staff welfare.

To distinguish from other training institutes UCSC continued putting a lot of emphasis on creating new knowledge through research. Staff published 64 conferences and journal papers. It was encouraging to note some positive comments on some of the UCSC contributions national issues including solutions to overcome EU fishing ban, Agriculture and finger print solution. UCSC also continued to carry out consultancy projects for the government ministries and other organizations. Staff and Students continued to be successful at national and international events by winning 8 major awards. Staff continued to be involved in many external committees, boards and professional bodies as their contribution to the society, while students continued with their IT outreach programmes to rural areas targeting school children.

Work proposed for external degree and commercialization of research through the Higher Education for the 21<sup>st</sup> Century (HETC) initiative continued successfully. UCSC continued to support the HETC funded programmes such as testing students' university competency test for IT at all universities, the university selection and allocation system for the UGC and many other challenging projects. UCSC staff also was successful in securing several NRC grants and NSF grant for research projects.

Long due physical infrastructure development of the UCSC continued during the year with some of the critical space issues faced over the last five years. However few more infrastructure improvement projects are in the pipeline to facilitate future expansion. UCSC while continued to hold the most qualified computing staff in the country with few more completing their PhD's during the year. UCSC now have 24 PhD holders further strengthen its academic pool to partially address the shortage of its Human Resources.

With the completion of the curriculum development to align existing degree programmes with international standards took placed the employability of our graduates also match or bettered the top Engineering and Medical graduate levels. Increase in undergraduate and postgraduate intakes as well as graduate and postgraduate outputs including in research was observed during the year. This year too UCSC attracted a foreign student for our degree programmes.



## UCSC AT A GLANCE

|   |         | 2013  | 2014  | 2015  |
|---|---------|-------|-------|-------|
| <b>Education (Enrolled/Graduated)</b>   |         |       |       |       |
| Internal Undergraduates                 | All     | 769   | 757   | 770   |
|   | In      | 254   | 212   | 256   |
|   | Out     | 212   | 215   | 247   |
| Science Undergraduates                  |         | 1275  | 1119  | 997   |
| External Diploma                        | All     | 4175  | 4535  | 4075  |
|   | In      | 2034  | 2379  | 1890  |
|   | Out     | 611   | 515   | 334   |
| External Higher Diploma                 | All     | 2391  | 2583  | 2509  |
|   | In      | 714   | 721   | 690   |
|   | Out     | 305   | 339   | 226   |
| External Degree                         | All     | 1416  | 1537  | 1651  |
|   | In      | 312   | 347   | 346   |
|   | Out     | 194   | 225   | 260   |
| Postgraduates                           | All     | 303   | 370   | 452   |
|   | In      | 143   | 209   | 186   |
|   | Out     | 122   | 107   | 121   |
| Extension Programmes                    |         | 309   | 389   | 339   |
| <b>Research</b>                         |         |       |       |       |
| Research (MPhil/PhD)                    | All     | 39/07 | 41/09 | 42/09 |
|   | In      | 09    | 07/06 | 08/01 |
|   | Out     | 6     | 3/1   | 3/1   |
| Research Projects                       | All     | 05    | 10    | 11    |
|   | New     | 1     | 6     | 3     |
| Publications                            |         | 70    | 67    | 71    |
| <b>Consultancy Projects</b>             |         |       |       |       |
|   | Local   | 10    | 10    | 23    |
|   | Foreign | -     | -     | 1     |
| <b>Social Responsibility Programmes</b> |         | 10    | 10    | 10    |



|   |            | 2013     | 2014      | 2015      |
|---|------------|----------|-----------|-----------|
| <b>Governance</b>                                     |            |          |           |           |
| Permanent Academic Staff                              | All        | 36       | 40        | 38        |
|   | Professors | 02       | 03        | 03        |
|   | PhD        | 20       | 20        | 23        |
|   | Masters    | 10       | 11        | 09        |
| Permanent Academic Support Staff                      |            | 04       | 04        | 04        |
| Temp Academic Staff (Instructors & Asst. Lect.)       |            | 15       | 30        | 27        |
| Permanent Admin and Non-Ac Staff                      |            | 40       | 40        | 37        |
| Contract Staff (including casual & trainee)           |            | 49       | 42        | 42        |
| Research/Project Staff                                |            | 11       | 27        | 24        |
| <b>Finance</b>  |            |          |           |           |
|   |            | 2013     | 2014      | 2015      |
| Annual Recurrent Expenditure (Millions SLR)           |            | 133      | 161       | 177       |
| Treasury Grant (Recurrent) (Millions SLR)- Act.       |            | 90       | 94        | 122       |
| Treasury Grant (Capital) (Millions SLR) – Actual      |            | 26       | 15        | 45        |
| Generated Income                                      |            | 242      | 247       | 211       |
| UCSC Contribution for UG (Millions SLR) (Generated %) |            | 88 (37%) | 185 (75%) | 122 (58%) |
| UCSC Budget (Millions SLR)                            |            | 363      | 577       | 622       |
| Research/Project (Millions SLR)                       |            | 9.3      | 9.7       | 14        |
| Cost per Employee (SLR '000s) per annum               |            | 774      | 795       | 881       |
| Cost per Student (SLR '000s) – Treasury Recurrent     |            | 152      | 190       | 195       |
| <b>Infrastructure</b>                                 |            |          |           |           |
| Library Books   |            | 8,303    | 8,678     | 8,783     |
| Computers : staff                                     |            | 1:1      |           |           |
| Computers : students (General students)               |            | 1:4      |           |           |
| (Special students)                                    |            | 1:1      |           |           |
| Space Utilization (employee) (sq. m.)                 |            | 10.42    | 11.70     | 11.70     |
| Space Utilization (student) (sq. m.)                  |            | 2.68     | 4.77      | 4.77      |



## OVERVIEW OF THE UCSC

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The University of Colombo School of Computing (UCSC) was established on 1st September, 2002 by merging the Institute of Computer Technology (ICT) and the Department of Computer Science (DCS), both of the University of Colombo, by an Order made under Section 24 A(1) of the Universities Act No. 16 of 1978 as last amended by Universities (Amendment) Act No.1 of 1995, as a Centre of Higher Learning for the purpose of providing, promoting and developing higher education in Computer Science, Information and Communication Technology. It is a Higher Educational Institution within the meaning of the Act. The UCSC Ordinance was Gazetted on 15th Nov 2002 (GZT NO. 1262/32) and Amended to include the Centre for Digital Forensics on 22 July 2011 (GZT NO. 1715/32).

### **A Brief History**

The teaching of Computing in the University of Colombo first started way back in 1967 by setting up the Statistical Unit as a separate unit of the Department of Mathematics. Later with the initial guidance of Professor V.K. Samaranayake, the statistical unit was enhanced as the Statistical Consultancy and Data Processing Service Centre. This had paved the way to many future developments. By 1985, this Centre had grown into the Department of Statistics and Computer Science (DSCS). The major function of this department was to conduct special degree programmes in Statistics and in Computer Science. The DSCS offered Computer Science specialization programme, producing just 40 students per batch, in no way sufficient to meet the growing demand in the field of Computer Science (CS).

In 1997, a batch of 50 students was taken directly to study Computer Science, through the University Grants Commission. However, by this time, it was realized by many that the Computer Science subdivision of the DSCS need to be expanded as a separate department to meet the growing demand of the field of Computer Science. As a result, in 2001, the DSCS was separated into two departments namely Department of Computer Science and Department of Statistics.

The Department of Computer Science identified its own limitations of operating in the restrictive framework of a Faculty and at the same time it understood the importance of having a strong industry relationship for exploiting future growth potential. The university understood the importance of a strategic merger between the industry focused Institute of Computer Technology (ICT) and the more theoretically oriented Department of Computer Science of the University of Colombo.

The ICT had a strong relationship with the industry at the same time a high institutional profile among foreign donor agencies. The ICT also enjoyed much more autonomy in their business operations making it easier for receiving large amounts of resources from Japan International Cooperation Agency (JICA), Swedish International Development Agency (Sida) and several other donors.

This merger gave birth to the University of Colombo School of Computing (UCSC) on 1<sup>st</sup> September 2002. Professor V.K. Samaranayake became the founder Director of the UCSC, whose proactive thinking set the path to achieve success in several succeeding endeavours of the UCSC. Through all this, the UCSC has been able to position itself as a Centre of Excellence in ICT in the university system of Sri Lanka.

Due to expansion limitations within the University premises, the UCSC constructed additional floor and rooftop by extending the current West and East building complex. The UCSC also put up a North and South wings to slightly expand the floor space. Currently the UCSC have constructed a two story of the administrative and canteen building and is in the process of constructing the auditorium and lecture halls in



order to increase the undergraduate intake. These initiatives have provided the students a reasonable working space of 4.8 sq. m. per student to carry out their studies, which was initially below 2 for a long period.

## **ORGANIZATION OF THE UCSC**

The three departments and six Centres continued to plan and execute their programmes of activities for the current year too.

### **Departments of the UCSC**

For the undergraduate academic programme, government funding is directly received by the UCSC through the UGC. Money received is inadequate to carry out the planned activities for the year and hence some of the generated income is used for undergraduate academic activities. The UCSC has three academic departments and the academic staff is allocated to these departments based on their specialization and teaching expertise. Three department heads are assigned to look after the undergraduate, postgraduate and external & extension programmes respectively as none of them offer programmes of its own. The three departments are,

1. Computation & Intelligent Systems (CIS);
2. Communication & Media Technologies (CMT);
3. Information Systems Engineering (ISE).

### **Centres of the UCSC**

UCSC also performs many secondary activities. These activities are organized under six separate centres. Each centre has a coordinator who manages the day-to-day operations of the centre. The six centres are as follows:

1. Advanced Digital Multimedia Centre (ADMTC);
2. Computing Services Centre (CSC);
3. External Degrees Centre (EDC);
4. e-Learning Centre (e LC);
5. Professional Development Centre (PDC);
6. Centre for Digital Forensics (CDF).

## **GOVERNANCE**

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During previous the year the corporate plan was prepared for 2014-2018. Its focus moved away from previous core areas of activities which were classified as Education, Research, Consultancy and Social Responsibility etc. to programmes identified for strategies based on its goals and objectives of the UCSC.

### **Management**

The management of the UCSC is handled by the officers of the UCSC with the assistance of the heads of the departments and centre coordinators. The director chaired all UCSC Statutory and Selection Committees.

### **Officers of the UCSC**

**Director:** Prof GN Wikramanayake; **Deputy Director:** Prof KP Hewagamage;



## **Heads of the Departments of the UCSC**

**CIS:** Dr DAS Athukorala; **CMT:** Mr GKA Dias (till Oct) & Dr GDSP Wimalaratne (from Nov); **ISE:** Prof KP Hewagamage;

## **Centre Coordinators of the UCSC**

**ADMTC:** Mr ST Nandasara; **CSC:** Mr. LP Jayasinghe; **EDC:** Mr. LP Jayasinghe (from Sept); **eLC:** Dr DD Karunaratna; **PDC:** Dr SMKD Arunathilake; **CDF:** Mr KS Goonathilake.

## **Authorities**

The Authorities of the School are the Board of Management; Academic Syndicate; Boards of Study; Departments of Study and Centres.

## **Board of Management**

Delay in appointing new university council and UGC nominees for the board resulted in having fewer meetings this year compared to the previous years. 11 monthly meetings and 01 Special Meetings of the Board of Management were held during the year. The composition of the Board of Management is given below.

**Director (Chairman):** Prof. GN Wikramanayake; **Deputy Director:** Prof. KP Hewagamage; **Nominee, Secretary, Ministry of Higher Education:** Mr. Piyasena Ranepura (till Mar) & Mr. M Dewasurendra (from May); **Nominee, Ministry of Finance:** Mr. DCA Gunawardana (Jan) & Mrs. DMA Harasgama (from Feb); **Dean, Faculty of Science:** Prof. KRR Mahanama; **Heads of Dept. CIS/CMT/ISE:** Dr. DAS Athukorala; Mr. GKA Dias (till Oct), Dr. GDSP Wimalaratne (from Nov); & Dr. KP Hewagamage; **Nominees of Council:** Mr. C Maliyadda (till March), Mr. Ranjith G Rubasinghe (Jan), Mr. Mahinda Madihahewa (Feb-Mar), Mr. K Kanag-Isvaran (from Jun-Nov); Dr. Sanjeeva Weerawarna (from Jun) & Mr. JM Swaminathan (from Dec); **Nominees of Senate:** Prof. PSM Gunaratne (Jan-Feb), Prof. KH Tennakoon (Jan-Feb), Prof. Sumedha Jayanetti (from May) & Dr. Pavithra Kailasapathy (from May); **Nominees of UGC:** Mr. Sujeewa Mudalige (Jan), Mr. Ruwan Keragala (from June) & Deshamanya Mr MDD Pieris (Jan & from June); **Representatives, IT Industry:** Mr. DB Saparamadu (Jan), Mr. Mano Sekeram & Mr. Ranil Rajapakse (from Feb); **Nominees, Academic Syndicate, UCSC:** Dr. GDSP Wimalaratne (Jan-Feb), Dr. DN Ranasinghe (Jan-Feb), Mr. ST Nandasara (from Mar), Dr. CI Keppetiyagama (from May) & Dr. TNK De Zoysa (from May); **Former Director (Invited):** Dr. AR Weerasinghe (till Oct).

Two Sub-Committees, the Finance & Management Committee and the Audit Committee assisted the Board of Management. Delay in appointing members also affected holding these sub-committee. The two committees were able to meet only 03 times and 03 meetings respectively during the year. Composition of the two committees is given below.

## **Finance and Management Committee**

**Director (Chairman):** Prof GN Wikramanayake; **Deputy Director:** Prof KP Hewagamage; **Nominee, Secretary, Ministry of Higher Education:** Mr. Piyasena Ranepura (till March) **Dean, Faculty of Science:** Prof KRR Mahanama; **Mr. Sujeewa Mudalige (till Jan), Deshamanya Mr MDD Pieris (Jan & from June); Dr Pavithra Kailasapathy (from May), Mr. Mano Sekeram.**

## **Audit Committee**

**Chairman:** Mrs. DMA Harasgama (from Feb); **Prof. GN Wikramanayake (Director- Observer); Deputy Director:** Prof. KP Hewagamage; **Nominee, Secretary, Ministry of Higher Education:** Mr. Piyasena Ranepura (till March) & Mr. M Dewasurendra (from May), **Mr. Ruwan Keragala (from June); Rep of Auditor General:**



Ms RPS Pathmini (till Oct), Mr. RMPA Janaka (from Nov); Internal Auditor/UGC : Mr Janaka Bogamuwa, Internal Auditor/UOC: Mr. KEW Jayasiri, Rep /E&Y Auditors: Ms GDA Weerasuriya.

### Academic Syndicate

13 meetings of the Academic Syndicate were held during the year. The composition of the Academic Syndicate is given below.

Director; Deputy Director; Heads of Dept. (CIS/CMT/ISE); Centre Coordinators (ADMTC/CSC/EDC/eLC/PDC); **Nominee (Faculty of Science):** Prof RD Wijesekara; **Representatives/IT Industry:** None; Senior Academics (UCSC); **Two Teaching Staff:** Mr. MPMK Silva; Dr TA Weerasinghe (from Jul); Dr. HEBHB Ekanayake (from Apr); Ms. M Premachandra (from Sep) **BOS IUD:** Mr. MIE Wickramasinghe (from Nov).

### Boards of Study

There are three boards of studies, namely IUD, RHD and EEP. They focus on Internal Undergraduate Degrees (IUD), Research and Higher Degrees (RHD) and External and Extension Programmes (EEP). The three boards had 11, 12 and 12 meetings respectively during the year.

## EDUCATION

### Programmes and Students

UCSC offers a wide variety of programmes at different levels. Table 1 identifies the courses (programmes) conducted by the UCSC along with the students and staff involved.

Table 1: Type of Courses Offered

| Course                                    | Total Students | Total Academic Staff | Total non Academic Staff |
|---|----------------|----------------------|--------------------------|
| Undergraduate and Postgraduate Programmes | 1,222          | 64                   | 60                       |
| Research and other Projects               | 45             | 35                   | 25                       |
| Extension courses                         | 339            | 1                    | 36                       |
| External degree                           | 8,235          | 48                   | 39                       |
| Online                                    | 10,995         | 4                    | 9                        |
| Other – Faculty of Science                | 997            | 15                   | 2                        |

### Undergraduate Education

Computing for undergraduates were first introduced way back in 1967 as a part of the Faculty of Science. UCSC continues to offer this opportunity for the faculty of science with 997 students. Computing as a degree commenced in 1990. All together 1,767 undergraduates are being trained at the UCSC. UCSC currently offers Computer Science (CS) degree for 468 students, Software Engineering degree for 21 students and Information Systems degree (IS/ICT) for 281 students.

### Internal Degrees

The University Grants Commission approved the proposed restructuring of the degree programmes and its implementation came into effect from the Academic Year, 2012/2013.



The Bachelor of Computer Science was restructured to offer the following degrees. The curriculum proposed was designed to achieve the expected graduate attributes and to conform to the IEEE/ACM curriculum recommendations in addition to catering the high demand of IT, IS and Computer Science professionals worldwide.

- (i) A Three year, Bachelor of Science in Computer Science (BSc in CS);
- (ii) A Four year Bachelor of Science Honours in Computer Science (BSc Hons. in CS)
- (iii) A Four year Bachelor of Science Honours in Software Engineering (BSc Hons. in SE)

The Bachelor of Information and Communication Technology Programme (BICT) was restructured as the Bachelor of Information Systems in order to produce a new kind of IT professional to fill the gap between business requirements and technical solutions. Currently only the 4<sup>th</sup> year students are in the old ICT degree programme. The IS degree Programme is designed to produce this new breed of ICT professionals. The curriculum of this programme also emphasizes the importance of soft skills such as communication and teamwork.

The degrees offered under this programme will be as follows:-

- (i) A Three year Bachelor of Science in Information Systems (BSc. in IS)
- (ii) A Four year Bachelor of Science Honours in Information Systems (BSc Hons. in IS).

The degree programme was redesigned to offer as 2+1 (3 year) and 2+2 (4 year) degrees instead of existing 3 year exist and 3+1 (4 year). New CS stream programme now contain a 4 year Software Engineering (SE) stream in addition to the existing 3 and 4 year CS exists. First batch of students for SE and CS was selected during the year with the commencement of the 3<sup>rd</sup> year, while the first two year students followed the new curriculum. However 4<sup>th</sup> year students continued with the previous two degree programme. CS degree stream select students from A/L physical science stream while the IS degree was open to all streams.

Revised curriculum also emphasizes the importance of soft skills such as communication and teamwork. Information Systems programme which is opened for any A/L stream had a screening aptitude test to qualify students. The aptitude test to select students for the next intake was held on 14 July and 1789 students sat for the test and 502 were qualified.

UGC had published a new Admission Book for the undergraduate Courses of the Universities in Sri Lanka 2014/2015. They continued to maintain the previous year increased intake of 275 (Computer Science 175; Information Systems 100).

### **Enrolment**

Under the 2014/2015 intake, the UCSC admitted a batch of 163 students for the Degree in Computer Science, while 93 students were admitted for the Degree in Information Systems. In 2015, the total number of registered students at the UCSC stood at 757. The breakdown of this number is given in Table 2. It was observed that most of the students were recruited by reputed firms in the IT industry on lucrative contracts, even before they could complete their 3<sup>rd</sup> year industrial placements. Selection of students for the 4 year degree took place on 20<sup>th</sup> February and the academic year commenced on 23<sup>rd</sup> February. New student inauguration was held on 6<sup>th</sup> February.

### **Visiting Staff**

All the academic and academic support staff participated in delivering the internal undergraduate programmes. ICT degree programme consists of many courses that require external support. 11 persons were invited as visiting lecturers to conduct 09 ICT/IS degree courses and one CS degree course.



Table 2: Internal Undergraduate Programmes

| Course                         | Intake 2014 | 1 <sup>st</sup> Year Students | 2 <sup>nd</sup> Year Students | 3 <sup>rd</sup> Year Students | 4 <sup>th</sup> Year Students | Total       | No of Graduated |
|--------------------------------|-------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------|-----------------|
| Bachelor of Computer Science   | -           | -                             | -                             | 154                           | -                             | 154         | 103             |
| BSc in Computer Science        | 175         | 143                           | 149                           | -                             | 40                            | 332         | 39              |
| BSc in Information Systems     | 100         | 69                            | 101                           | -                             | -                             | 170         | -               |
| BSc in ICT                     | -           | -                             | -                             | -                             | 23                            | 23          | 20              |
| Bachelor of ICT                | -           | -                             | -                             | 78                            | -                             | 78          | 53              |
| <b>UCSC Undergraduates</b>     | <b>275</b>  | <b>212</b>                    | <b>250</b>                    | <b>232</b>                    | <b>63</b>                     | <b>757</b>  | <b>215</b>      |
| BSc Faculty of Science         | -           | 553                           | 363                           | 45                            | 36                            | 997         | -               |
| <b>Internal Undergraduates</b> | <b>275</b>  | <b>765</b>                    | <b>613</b>                    | <b>277</b>                    | <b>99</b>                     | <b>1754</b> | <b>215</b>      |

All courses are conducted in English Medium

### Industrial Placement

PDC continued to keep a close liaison with the IT industry and for improvement of the academic programmes through industry partnership thereby enhancing the quality of the undergraduates. In 2014 PDC placed 230 undergraduates at 73 organisations for their 6 months training, including 8 UCSC projects completed the training during January 2015. During the latter part of the year the next batch of 247 students were placed at 81 companies including 13 UCSC projects. These students are expected to complete their training in January 2016. PDC organised companies to voluntarily take part in a series of guest lectures, through which the undergraduates are made aware of the role they have to play as professionals after they graduate. Apart from the industrial training, the PDC organised Tech-talk sessions, Mock interviews, Professional Skills Development, while providing employment opportunities for pass out students.

### Hostel

In the year, the UCSC provided residential facilities for the most needy 1<sup>st</sup> year as well as needy 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students in keeping with the policy adopted by the University of Colombo. The following hostels were rented and leased for this purpose. Boys' Hostel in Battaramulla accommodated 27 students (1<sup>st</sup> Years - 10, 3<sup>rd</sup> Years - 17; Warden - Dr KL Jayarathne; Sub-Warden - Mr MIE Wickramasinghe) and Girls' Hostel in Kohuwala accommodated 33 students (1<sup>st</sup> Years - 18, 3<sup>rd</sup> Years - 13, 4<sup>th</sup> Years - 02; sub-warden: Ms JHK Thiyumini) each with care taker.

### Canteen

In spite of several canteens functioning within the University premises, during the year under review, the UCSC maintained a separate student canteen specifically for its students. Construction of a new canteen which began last year was completed during the year. New canteen can accommodate 120 students and has facilities to serve food, watch TV and browse internet. Functioning of the new canteen was initially given to the College house canteen people. However they failed to deliver as promised and hence the running of the canteen was handed over to those were running the arts faculty canteen. There was a delay in the processing of canteen furniture particularly with inadequate funds allocated to UCSC.

### Counselling

Services of four Student Counsellors (subsequently extended to five), namely Dr (Mrs) SMKD Arunathilake, Dr A.R. Weerasinghe (up to 31st October), Dr (Mrs) TA Weerasinghe, Dr TMHA Usoof (up to October), Mr HEMHB Ekanayake (from Nov), Mr GP Seneviratne (from Nov), Dr. T Sritharan (from Nov) were provided to all students. Also, the service of a Professional Counsellor was obtained for a



duration of 3 hours a week to facilitate the students who required counselling. In general around 5 students take regular consultations and during certain period such as examination times another 10 to 15 come for counselling.

### Financial Assistance to undergraduate students

Financial assistance was given to the students in the form of Mahapola scholarships Bursaries, Industry Scholarships and Personal Scholarships.

#### Mahapola Scholarships

The Mahapola scholarships sponsored by the Mahapola Trust Fund of the Ministry of Commerce & Consumer Affairs were awarded to 308 students. The value of Merit and Ordinary scholarships were Rs 2,550/= and Rs 2,600/= respectively. In May this amount was increased to Rs. 5,000 and 5,050.

#### Bursaries

Bursaries were awarded in accordance with UGC Circulars which governs the selection of students for bursaries. 145 students were awarded bursaries. The breakdown of the Bursary recipients for the year 2015 is depicted in the following table. The value of a full bursary and a half bursary was Rs 2,000/= and 1,900/= respectively. In May this amount was increased to Rs. 2,400 and 2,500 and from October it was increased again to Rs. 3,900 and 4,000.

#### Hostel Facilities

Hostel facilities are usually provided only to 1<sup>st</sup> years as 3<sup>rd</sup> years spend half the year at industry placement. As there were vacancies it was open for 3<sup>rd</sup> years as well.

Details of the number of students who received the Mahapola, Bursaries and Hostel are given in the following table.

| Year of Intake | Year of Study        | Mahapola Scholarship Awardees (CS&IS/ICT) | Bursary Recipients (CS&IS/ICT) | Hostel Facilities (M&F) |
|----------------|----------------------|---|--------------------------------|-------------------------|
| 2013/14        | 1 <sup>st</sup> year | 90 (63+27) (35%)                          | 87 (55+32) (34%)               | 28 (10+18) (11%)        |
| 2012/13        | 2 <sup>nd</sup> year | 80 (69+11) (39%)                          | 14 (9+5) (07%)                 | -                       |
| 2011/12        | 3 <sup>rd</sup> year | 116 (70+46) (47%)                         | 40 (15+25) (16%)               | 30 (17+13) (12%)        |
| 2010/11        | 4 <sup>th</sup> year | 22 (16+6) (37%)                           | 4 (2+2) (07%)                  | 02 (0+2) (03%)          |

#### Industry Scholarships

Two external organizations had sponsored Scholarships for the needy students with one internal funding sources, namely: Student Welfare & Distress Fund – 16 (@ 2,500/- pm for 10 months); IFS R&D Limited (IFS) – 08 (@ 2,500/- pm for 12 months); and MIND – 02 (@2,000/- pm for 12 months).

#### Shorea Robusta Scholarship

A Special scholarship named "Shorea Rubusta" was introduced by an Alumni of the former CS Special degree programme in 2007 in respect of 4th year undergraduate students. Two scholarships were granted under this scheme in the year 2015 and the value of the Scholarship was Rs. 2,500/= per month for 10 months of the Academic year. Selection was based on the academic performance and financial needs of the students.



## UCSC Student Union

In terms of the Sub-Paras 25 and 26 of the University of Colombo School of Computing Ordinance No. 01 of 2002, the Student's Union election was held for the year 2014/15 and the office bearers were elected uncontested. **President:** SLR De Silva; **Vice-President:** WARR Somaweera; **Secretary:** DTAHN Dissanayake; **Junior Treasurer:** WPM Priyanja; **Editor:** RCB Rajapaksha; **Committee Members:** SSB Wijerathne; SDLH Sandanayake; S Ahilendran; AAFM Fasly; **Senior Treasurer:** MGNAS Fernando.

## Student Activities

Student activities are carried out through the student union mainly to promote cultural and recreation activities. Students organized Sports day and Awurudu uthsawaya in April; Wesak lantans on 3<sup>rd</sup> May; Dansala on 5<sup>th</sup> May; Padura on 8<sup>th</sup> May; Poson gee on 3<sup>rd</sup> June; Bana for Prof Samaranayake on 5<sup>th</sup> June; Going Down on 19<sup>th</sup> September; Freshers cricket tournament and Freshers welcome on 26<sup>th</sup> September; Blood donation camp on 1<sup>st</sup> October; Donation for cancer hospital; Pirith Chanting ceremony on 20<sup>th</sup> March and 4<sup>th</sup> November; Vani Villa on 22<sup>nd</sup> October; Christmas tree and Carols on 30<sup>th</sup> December; UCSC students conducted several workshops at UCSC and at Schools to assist students and teachers with GCE (O/L) & (A/L) ICT. A workshop held in Matara with the participation of some of the staff including the director.

## Student Achievements

Students won the **National Best Quality ICT Awards (NBQSA) Bronze** for NBQSA **Bronze** for Tertiary (Technology): WOKAS Wijesinghe for "Autogenous Diabetic Retinopathy Censor for Ophthalmologists – 'AKSHI'" and Tertiary (Business) for "Effective Utilization of Nitrogen Fertilizer in Paddy Cultivation". WOKAS Wijesinghe's for "Autogenous Diabetic Retinopathy Censor for Ophthalmologists – 'AKSHI'" went on to win a **Merit at Asia Pacific ICT Awards (APICTA)**.

**Imagine Cup** is an annual competition held under different categories among university students. UCSC students became **2<sup>nd</sup> runners-up** in the Games category: "the OOPS Creators".

**IEEE Extreme 9.0** global programming competition was successfully held with the participation of over 200 students (81 teams) on 24<sup>th</sup> October for 24 hours from UCSC. UCSC top teams were able to get the best ranks that UCSC gained in the Extreme history yet. Our top team "Hal9000" was the 6<sup>th</sup> in Sri Lanka and 145 in the World. We were able to get 3 teams in the first 200 of the world.

Students organized two 17th June - Students organized "Reid Cyber Wars 2015" computer gaming competition. Students organized a 24 hours hackathon competition on 5 & 6 Sept

## Sports

Following UCSC students were appointed as vice-captain of the University of Colombo for respective sports: Carrom (W) - TAK Lochana and Teakwondo (M) - WAMS Weerasooriya.

Following have won the mention trophies in 2015: GHC Karunarathna - Inter-University Track & Field Merit Award and SS Vithanage - Prof. Thilak Hettiarachchi Challenge Trophy for the best performance in the Inter-University Swimming Championship.



Following 32 UCSC students were awarded University colours in 2015. \* denote re-awarded.

**Badminton:** (M) - \*PM Ranathunga; (W) - \*TS Dahanayake. **Carrom:** (M) - BBP Prasanga, PY Gunarathna; (W) - WDM Weerakoon, \*MPBS Wijerathna, \*TAK Lochana. **Chess:** (M) - \*MDY Perera. **Elle:** (M) - USA Wijesekara, \*GA Madushanka; (W) - KDUM Premathilaka, HAK Nadeekumari, RL Gamage, KKM Pramodi. **Football:** KM Haseem, IS Weerakkody, MNM Nashath, \*GWSC Gintota. **Hockey:** MGT Piyumantha; (W) - DM Weerasinghe, \*WCE Wickremasinghe. **Karate:** (M) - KDP Samawaweera, RMST Siriwardhana, \*IADKCW Gunarathna. **Swimming:** (M) - SS Vithanage, GHCE Karunaratne, JMID Jayasundara. **Teakwondo:** (M) - \*WAMS Weerasooriya. **Tennis:** (M) - EK De Silva; (W) - EWMUI Pitawela, KHS Rupasinghe. **Volleyball:** (M) - \*YMKK Yaparathne.

## Graduation

Graduation ceremony was held on 20<sup>th</sup> July 2015 for 247 students from 4 degree programmes. Students for the ICT degree programme are selected from any A/L stream (Tables 3a and 3b). In table 3 students' performance by stream is also shown for these students.

A survey was carried out by the Ministry during the convocation which was held seven and ten months after completing the degree for 4<sup>th</sup> and 3<sup>rd</sup> years respectively. Details of the survey are not yet available to include in this report.

Table 3: Performance of UCSC Graduates

| Intake       | First     | Upper     | Lower     | Pass       | TOTAL      |
|--------------|-----------|-----------|-----------|------------|------------|
| BCSc         | 02        | 01        | 17        | 83         | 103        |
| BICT         | -         | -         | 15        | 38         | 53         |
| BSc CS       | 10        | 14        | 10        | 05         | 39         |
| BSc ICT      | 04        | 12        | 03        | 01         | 20         |
| <b>TOTAL</b> | <b>16</b> | <b>27</b> | <b>45</b> | <b>126</b> | <b>215</b> |

Table 3a: Performance of BICT UCSC Graduates

| Intake      | First    | Upper    | Lower     | Pass      | TOTAL     |
|-------------|----------|----------|-----------|-----------|-----------|
| Mathematics | -        | -        | 08        | 16        | 24        |
| Biology     | -        | -        | 03        | 03        | 06        |
| Commerce    | -        | -        | 04        | 14        | 18        |
| Arts        | -        | -        | -         | 05        | 05        |
| <b>BICT</b> | <b>-</b> | <b>-</b> | <b>15</b> | <b>38</b> | <b>53</b> |

Table 3b: Performance of BSc ICT UCSC Graduates

| Intake         | First     | Upper     | Lower    | Pass     | TOTAL     |
|----------------|-----------|-----------|----------|----------|-----------|
| Mathematics    | 0         | 10        | 0        | 0        | 14        |
| Biology        | 3         | 1         | 0        | 0        | 04        |
| Commerce       | 8         | 1         | 0        | 0        | 09        |
| Arts           | 0         | 0         | 0        | 0        | 00        |
| <b>BSc ICT</b> | <b>11</b> | <b>12</b> | <b>0</b> | <b>0</b> | <b>23</b> |



### Undergraduate Awards

Undergraduate convocation was held on 10<sup>th</sup> June, 2014 at BMICH. Prof. V.K. Samaranayake Medal for the Most Outstanding Graduate of the UCSC - 2013 was given to Ms. M.G.D.K. Fernando. The other Undergraduate Awards were as follows:

Table 3c: Computer Science: Undergraduate Awards - 2014

| Name of the Medal   | Name of Receiver  |
|---|---|
| Professor Mohan Munasinghe Award for Computer Science - 2013                                | C. Pankajan   |
| CINTEC Award for the Best Computer Science final year project - 2013                        | M.J.M. Shazan   |
| David Peiris Group Gold Medal for the Best Performance in Industrial Placement (CS) – 2012  | W.L. Ranaweera<br>M.J.M. Shazan<br>W.A.A.M. Weerasinghe<br>W.D.N.Y. Gunathilake |
| Virtusa Academic Excellence Award for the Best Performance in three year degree (CS) - 2013 | T.M. Gamalath   |

Table 3d: Information & Communication Technology: Undergraduate Awards - 2014

| Name of the Medal   | Name of Receiver                       |
|---|--|
| IFS Academic Excellence Award for the Best Performance in four year degree (ICT) - 2013       | H.D.S.T. Wijerathne                    |
| Sampath Bank Award for the Best Final year Project (ICT) - 2013                               | H.D.S.T. Wijerathne<br>G.B.I. De Silva |
| David Peiris Group Gold Medal for the Best Performance in Industrial Training (ICT) -2012     | M.A.R. Jaldin                          |
| David Peiris Group Gold Medal for the Best Performance in Industrial Training (ICT) - 2013    | R.P.H. Vithanage                       |
| Motorola Academic Excellence Award for the Best Performance in three year degree (ICT) - 2013 | T.G.E. Perera                          |

### Postgraduate Education

Bachelor's Degree or equivalent in Computing and the Master of Information Technology programme which is intended for graduates and practitioners in other disciplines. MIT programme included e-Learning and Multi-Media streams. The Master of Information Security which has been designed for graduates who wish to acquire a postgraduate qualification in the area of Information Security. This programme offers mid-career opportunities for those who are working in the areas of Information Technology, Information System Audit and Information Security.

The Master's Programmes offered by the UCSC are two year part-time courses and of four semesters' duration. The courses commenced in January 2015 for the 2014/2015 intake. The recruitment of students for the 2015/16 was initiated during the year holding selection tests and interviews. Students would be enrolled to commence the programme in 2016.

A total of 37 internal staff and visiting lecturers contributed to the programme. Total population of Master's students was 452 (Table 4). The income derived from Master's programmes contributes to the UCSC



generated fund in a considerable manner and plays an important role in providing support towards its infrastructure and research activities. MIS curriculum workshop was held on 16<sup>th</sup> and 17<sup>th</sup> April and another for the other two was held on 23<sup>rd</sup> and 24<sup>th</sup> Sept. Workshop was also held to revise the MPhil/PhD by-laws.

Information Technology programme offered since 2000 had 218 students. Information Security programme offered since 2010 had 53. 51 research students are carrying out research leading to MPhil/PhD. Emphasis put on research is becoming evident with the highest number of research students graduating this year.

Nine new students registered for the MPhil Degree programme while one student got upgraded to the PhD Programme.

Table 4: Postgraduate Degree Programmes - 2014

| Course                      | Intake<br>2014/15 | 1st Year<br>Students | 2nd Year<br>Students | 3rd Year<br>Students | 4th Year<br>Students | Total      | No of<br>Graduated |
|-----------------------------|-------------------|----------------------|----------------------|----------------------|----------------------|------------|--------------------|
| Master of Computer Science  | 83                | 86                   | 81                   | 4                    | 10                   | 181        | 42                 |
| Master of IT                | 75                | 76                   | 100                  | 19                   | 23                   | 218        | 46                 |
| MSc in Information Security | 27                | 26                   | 27                   | -                    | -                    | 53         | 12                 |
| PGD in Computer Science     | -                 | -                    | -                    | -                    | -                    | -          | 04                 |
| PGD in IT                   | -                 | -                    | -                    | -                    | -                    | -          | 02                 |
| PGD in Information Security | -                 | -                    | -                    | -                    | -                    | -          | 01                 |
| <b>Taught PGD</b>           | <b>185</b>        | <b>188</b>           | <b>208</b>           | <b>23</b>            | <b>33</b>            | <b>452</b> | <b>107</b>         |
| PhD                         | 01                | 01                   | 07                   | 01                   | -                    | 09         | 42                 |
| MPhil                       | 08                | 08                   | 07                   | 08                   | 19                   | 42         | 46                 |
| <b>Total</b>                | <b>194</b>        | <b>197</b>           | <b>222</b>           | <b>32</b>            | <b>52</b>            | <b>503</b> | <b>12</b>          |

All courses are conducted in English Medium

#### Awards

Postgraduate convocation was held on 1<sup>st</sup>-2<sup>nd</sup> December 2015 at BMICH. Kingslake award for the best student for Master of Computer Science Degree Programme was given to Mr. CB Indisooriya while JICA award for the best student for Master of Information Technology was given to Ms. HM Kothalawala. The University of Colombo Research Award (UCSC) - 2014 was not awarded. Four research students graduated during the convocation including one PhD. 101 completed master's programmes and while 20 opted for postgraduate diplomas.

#### External Degree & Extension Courses

The UCTIT (ICT) & UTEL programmes (English language) 10,995 and 5,283 sat the exams respectively. FIT programme had 980 sat for the examinations during the year. During the year e-Learning centre conducted online examinations for 300 KPMG students and 6 CAA students.

BIT programme alone has attracted 33,451 since its inception and has produced 1,661 graduates; 3,353 higher diploma holders and 6,852 diploma holders. In 2014/15 had 1890 new enrolments and produced the highest graduate output (Table 5). Recruitment process for new intake commenced during the year however the academic year now would commenced in January 2016 to cater the advanced level students of 2015.



Table 5: External Degree Programme 2014/15

| Course                             | Intake | 1st Year Students | 2nd Year Students | 3rd Year Students | Total | No of Graduated |
|------------------------------------|--------|-------------------|-------------------|-------------------|-------|-----------------|
| Diploma in Information Technology  | 1890   | 2621              | 1110              | 344               | 4075  | 334             |
| Higher Diploma in IT               | 690    | 1110              | 406               | 993               | 2509  | 226             |
| Bachelor of Information Technology | 346    | 344               | 649               | 658               | 1651  | 262             |
| All                                | 2926   | 4075              | 2165              | 1995              | 8235  | 822             |

Table 6 highlights the performances of the BIT students since the last three years identifying number registered and graduated along with targets.

BIT institute meeting was held to brief the curriculum changes and obtain institute feedback on 20th May. BIT examinations were held in Colombo, Kandy, Galle and Jaffna. BIT external degree centre located at Dharmapala Mw. was handed over to the owners in November. Currently the office is located at UCSC and looking for a new location. BIT institute supervisors were trained to improve the quality of the Bit projects.

Table 6: External Degree Performance over last Three Years

| External Undergraduates          | KPI  | 2012/13 | 2013/14 | 2014/15 |
|----------------------------------|------|---------|---------|---------|
| DIT - New Intake                 | 2000 | 2034    | 2379    | 1890    |
| DIT – Registered                 | 4000 | 4175    | 4535    | 4075    |
| DIT – Diplomas                   | 600  | 611     | 515     | 334     |
| HDIT - Higher Diploma Intake     | 600  | 714     | 721     | 690     |
| HDIT - Higher Diploma Registered | 2000 | 2391    | 2583    | 2509    |
| HDIT - Higher Diplomas           | 300  | 305     | 339     | 226     |
| BIT - Degree Intake              | 300  | 312     | 347     | 346     |
| BIT - Degree Registered          | 1500 | 1416    | 1537    | 1651    |
| BIT – Graduates                  | 200  | 194     | 225     |         |

### Graduation

Performance of the participants of the 2014 convocation held on 1<sup>st</sup> September 2015 is shown in Table 7. Recorded number of 225 graduates were conferred the degree at this Convocation. Meeting was held on 29<sup>th</sup> May with BIT teaching institutes to brief them with proposed changes to the BIT degree including starting of the new academic year from January.

Table 7: Those Graduated at the Convocation held in 2014

| Intake | First | Upper | Lower | Pass | TOTAL |
|--------|-------|-------|-------|------|-------|
| BIT    | 7     | 9     | 11    | 198  | 225   |

### Awards

Prof. VK Samaranayake Medal for the Best Performance at the Bachelor of Information Technology (External) Degree was awarded Ms. MHVMP Wijayapala. The best individual project was awarded to Mr. M Naseem Sadiq. Mr. MJPU Samanthilake Memorial Award was awarded to Mr. JA Romesh Raj. Best e-



Learner awards for the 4 semesters were awarded to Ms. T Thanabalasingam, Mr. AB Ameerdeen, Mr. HKRK Senadheera and Mr. KLNT Amarasekera respectively.

### Institutes

Many training institutes have offered face to face classes and learning support for the BIT candidates. Over 200 institutes have participated in this process with around 50 institutions in some academic years. UCSC do not accredit any of these institutions but have recognised their contributions for the success of the programme. Each year UCSC publishes the summary of examination results for each course by institute so that the candidates can identify the available institutions and plan their learning mode. More than half of the candidates study on their own with the help of the VLE and online/recommended material. In 2014/15, 31 institutions from 12 districts conducted training for five or more candidates. Among them 14 institutions were involved in all three years (marked \* in the Table 8).

Table 8: Institutes involved in the BIT Programme

| District    | Institute   |
|-------------|---|
| Ampara      | (1) Global Institute Of Professional Education  |
| Batticaloa  | (2) *ESOFT Computer Studies   |
| Colombo     | (1) *Aurora Computer Studies, Maharagama<br>(2) *E-Academy, Colombo 06<br>(3) *Earth International, Colombo 08<br>(4) Easl J Lanka Computer Training Institute, Colombo 08<br>(5) *ESOFT Computer Studies, Colombo 04<br>(6) ESOFT Computer Studies, Colombo 06<br>(7) ESOFT Computer Studies, Nugegoda<br>(8) Foundation Of It Professionals, Pannipitiya<br>(9) Foundation Of It Professionals, Colombo 08<br>(10) *IDM Computer Studies, Colombo<br>(11) *Matrix Institute of IT, Colombo 04<br>(12) *Openarc School of Business and Technology, Colombo 06<br>(13) *Wideawake Solutions, Pepiliyana |
| Galle       | (1) ESOFT Computer Studies  |
| Gampaha     | (1) Earth International<br>(2) ESOFT Computer Studies, Gampaha<br>(3) ESOFT Computer Studies, Kiribathgoda<br>(4) *ESOFT Computer Studies, Negombo  |
| Jaffna      | (1) ESOFT Computer Studies<br>(2) *MIS BIT Campus<br>(3) *Mobile@Net Computer Services  |
| Kandy       | (1) *ESOFT Computer Studies   |
| Kegalle     | (1) Institute of Computer Studies   |
| Kurunegala  | (1) *ESOFT Computer Studies   |
| Matara      | (1) Dbase School of Computing<br>(2) ESOFT Computer Studies<br>(3) IDM Computer Studies   |
| Ratnapura   | (1) ITsoft Computer Studies, Balangoda  |
| Trincomalee | (1) ESOFT Computer Studies  |



UCSC offered nine extension certificate courses and attracted over 300 students. Table 9 identifies the details of the CSC courses (programmes) conducted by the UCSC (D – Duration in days; B – No of Batches; P – Total Participants).

Table 9: CSC Training Programmes

| Course  | 2014       | D         | B         | P          |
|---|------------|-----------|-----------|------------|
| Java Application Development Using JavaSE               | 89         | 8         | 3         | 71         |
| Advanced Java Application Development                   | 67         | 8         | 2         | 44         |
| Unix/Linux Network & System Administration              | 71         | 5         | 3         | 78         |
| Advanced Multimedia Web Design & Development Techniques | 39         | 8         | 1         | 12         |
| Computer Aided Drafting Using AutoCAD 2010              | 18         | 8         | -         | -          |
| Project Management Software                             | 24         | 2         | -         | -          |
| Dynamic Web Application Development with PHP & MySQL    | 7          | 8         | 1         | 18         |
| Word Processing & Computer Assisted Translation Tools   | -          | 3         | 1         | 25         |
| Training Course on MS Office                            | -          | 6         | 1         | 14         |
| Android Application Development                         | -          | 8         | 2         | 37         |
| Computing for Career Development                        | -          | 12        | 1         | 40         |
| <b>TOTAL</b>  | <b>389</b> | <b>47</b> | <b>18</b> | <b>339</b> |

### Foreign Students

To be accepted as a centre of excellence in the region it is important to attract foreign students. Although foreign student category to enrol students had been there for a while only students who have done their A/L elsewhere but with local connections have applied so far. During 2011 first student enrolled under the foreign student category for the CS degree programme. In 2013 we had the first foreign student from Bhutan for the Master of Information Technology programme and subsequently from Pakistan for Master of Science in Information Security but dropped out after the first semester. This year a student from Nigeria joined the programme. Details of foreign student enrolment are given in table 10.

Table 10: Foreign Students

| Course           | Medium  | Intake | 1st Year Students | 2nd Year Students | 3rd Year Students | 4th Year Students | No of Graduated |
|------------------|---------|--------|-------------------|-------------------|-------------------|-------------------|-----------------|
| Computer Science | English | -      | -                 | -                 | 01*               | -                 | -               |
| MIT              | English | 01     | 01                | 01                | -                 | -                 | -               |

\*graduated in 2015

### New Courses Started

Alignment of curriculum to comply with ACM/IEEE guidelines for all undergraduate programmes have taken place and relevant academic year changes also carried out. New Software Engineering Degree commenced for 3<sup>rd</sup> years. To commence a new certificate programme leading to a degree an MOU was signed between FITIS, NODES and the UCSC to conduct the International Competency in IT (ICIT) programme. This programme was expected to commence in 2015, however due to objects from some staff members this proposal was withdrawn. However new certificate courses were offered by CSC to meet the needs of the industry.

Table 11: New Courses

| Course               | Medium  | Certificate | Degree | Postgraduate Diploma | Master | MPhil | PhD |
|----------------------|---------|-------------|--------|----------------------|--------|-------|-----|
| Software Engineering | English | -           | 1      | -                    | -      | -     | -   |
| Certificate Courses  | English | 4           | -      | -                    | -      | -     | -   |



## RESEARCH

### Research, Innovation and Publications

Research is carried out under different research groups and through research students (Table 13). UCSC admits graduates with good first degree results in Computer Science/Engineering for its full/part time (FT/PT) MPhil programme mainly centred on research projects in progress. 8 new students registered for MPhil during the year and while 1 for PhD. Currently 51 students are working on 25 disciplines under 16 senior academics of the UCSC and 10 external researchers. 22 research projects leading to MPhil/PhD have been completed so far. 18 MPhil/PhD students had publications during the year.

Prof. Ginige from University of Western Sydney visited UCSC to spend few days in April and August on the Social Life Network research Project. This project was mentioned in the 2016 budget proposal as one of the innovative projects. Team from Nanyang Technological University, Singapore also came to Colombo for Dengue project for Colombo Municipal Council.

Table 12: Staff Research Areas

| Research Area               | FT        | PT        | Total     | New       | Complete  |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|
| Artificial Intelligence     | 1         | 2         | 3         | 0         | 0         |
| Assistive Technology        | 0         | 1         | 1         | 1         | 0         |
| Computer Graphics           | 1         | 1         | 2         | 0         | 1         |
| Computer Science            | 0         | 1         | 1         | 0         | 0         |
| Computer Vision             | 1         | 0         | 1         | 1         | 0         |
| Data Mining                 | 1         | 0         | 1         | 0         | 0         |
| Data Semantics              | 2         | 0         | 2         | 0         | 0         |
| Digital Forensic            | 1         | 0         | 1         | 0         | 0         |
| e-Learning                  | 2         | 5         | 7         | 1         | 0         |
| Game-based Learning         | 0         | 1         | 1         | 0         | 0         |
| Geographical IS             | 1         | 1         | 2         | 0         | 1         |
| Green IT                    | 1         | 0         | 1         | 0         | 0         |
| Heuristics Optimization     | 0         | 1         | 1         | 0         | 0         |
| High Performance            | 0         | 1         | 1         | 1         | 0         |
| Image Processing            | 0         | 2         | 2         | 1         | 1         |
| Information Systems         | 3         | 0         | 3         | 1         | 0         |
| Knowledge Engineering       | 1         | 1         | 2         | 1         | 0         |
| Machine Learning            | 2         | 0         | 2         | 1         | 0         |
| Mobile Learning             | 1         | 0         | 1         | 0         | 0         |
| Multimedia                  | 1         | 2         | 3         | 0         | 0         |
| Natural Language Processing | 2         | 1         | 3         | 0         | 0         |
| Neural Networks             | 0         | 1         | 1         | 0         | 0         |
| Sensor Networks             | 0         | 2         | 2         | 0         | 1         |
| Social Science and IT       | 0         | 3         | 3         | 0         | 0         |
| Software Engineering        | 2         | 2         | 4         | 1         | 0         |
| <b>TOTAL</b>                | <b>23</b> | <b>28</b> | <b>51</b> | <b>09</b> | <b>04</b> |

To promote research at the UCSC a research fund was established with utilisation guidelines in 2009. Since the initial contribution of 4 million from the masters and BIT this fund has continued to grow through generated funds and it now stands at 100 million. Senior and junior staff respectively could annually utilise



up to 350,000 and 250,000 rupees to participate at research meetings and publish research in international conferences and journals. This increased annual UCSC publications from 30s to 60s. Among this year publications 54 were papers held in 12 countries. 23 (58%) academic staff published research papers. Table 13 gives the details of the publications.

Publications included 123 co-authored papers by the following staff: GN Wikramanayake (12), KP Hewagamage (11), GKA Dias (9), DAS Athukorala (7), KL Jayaratne (6), ND Kodikara (6), AR Weerasinghe (6), KTN de Zoysa (5), CI Keppetiyagama (5), DD Karunaratna (3), GDSP Wimalaratne (3), Y Ekanayake (3), SP Mataraarachchi (2), HL Premaratne (2), RMPN Somaratne (2), HA Caldera (1), KKK Dharmathilaka (1), HB Ekayanake (1), MGNAS Fernando (1), JS Goonathilake (1), TC Halloluwa (1), RS Madanayake (1), ST Nandasara (1), Hakim Usoof (1), TA Weerasinghe (1).

Table 13: Research Summary

| Subject           | Published | Commercialized | Presented |
|-------------------|-----------|----------------|-----------|
| No of Researches  | 123       | -              | 54        |
| No of Innovations | -         | -              | -         |
| No of Journals    | 17        | -              | -         |
| No of Thesis      | 2         | -              | -         |
| No of Articles    | 52        | -              | -         |
| Other             | -         | -              | -         |
| <b>Total</b>      | <b>71</b> | <b>-</b>       | <b>54</b> |

### Conferences, Seminars & Workshops

Setting up mechanisms for identifying & carrying out relevant research is another strategy of the UCSC. Seventh UCSC Research Symposium was successfully held on 29<sup>th</sup> April 2015 with the involvement of the final year students UCSC continued to publish one issues of the ICTer Journal. UCSC Organized International IT Conference for Emerging Regions was held successfully from 24-26 August 2015 which included post conference workshops held on 26<sup>th</sup> August. ICTer conference was held in conjunction with the 8<sup>th</sup> International Conference on Ubi-Media Computing (UMEDIA2015). 4<sup>th</sup> Year students were allowed to participate in the Conference free of charge which costed Rs. 435,000. Beside UCSC also sponsored MPhil/PhD students worth Rs. 60,000. UCSC also revised mechanism for utilizing Research Fund by all academics to limit the maximum funds for an academic. Research awarded was also not awarded this year. ICTer conference attracted 130 papers were accepted as full papers and 18 were accepted as abstracts. 63 foreign participants attended the joint conference.

UCSC successfully held the annual Prof. VK Samaranayake oration on 9<sup>th</sup> September 2015 at the BMICH. Orator Deshamanya MDD Pieris spoke on "The Quality of Education Issues of Technological Change and the Responsibilities of the Universities". Details of the conferences, seminars and workshops are given in table 14 with staff presentations.

Table 14: Conferences, Seminars and Workshops

| Subject                                    | Participated | Published | Presented |
|--|--------------|-----------|-----------|
| Senior Academics local conferences         | 20           | 5         | 1         |
| Senior Academics International conferences | 21           | 10        | 12        |
| Organized International Conference (ICTer) | 290          | 74        | -         |
| ICTer Journal                              | 1            | 1         | -         |
| <b>Total</b>                               | <b>332</b>   | <b>90</b> | <b>13</b> |



## Awards Received

UCSC continued to encourage students participating in national and international competitions. UCSC staff won Gold and Bronze awards at NBQSA e-Health and Education & Training categories for the project Run Tropica (collaboratively done with University of Monash, Malaysia) and K-8 Flight Simulator (collaboratively done with CRD Ministry of Defence). Sangeetha.lk and Run Tropica won awards in the e-Entertainment & Games and e-Health categories at the Manthan Awards in India. Beside some staff got NSF and NRC grants to carry out their research. Details of the awards received are given in table 15.

On 12<sup>th</sup> February Mo-Buzz Dengue mobile app developed at UCSC with the collaboration of Nanyang Technological University, Singapore was re-launched at Colombo Municipal Council. A team from Nanyang Technological University subsequently followed up to monitor the progress and implantation issues. The government budget appreciated a UCSC project to take it forward beyond the NSF funded project to a national level as Govi-Nena agriculture project. This project was done with the collaboration of the University of Western Sydney. Government also granted approval to implement a UCSC proposal called electronic log book to selected fishing boats as first phase of deployment to overcome the EU fishing ban.

Table 15: Awards Received

| Subject              | No of Awards | No of Academics | No of Students |
|----------------------|--------------|-----------------|----------------|
| Local Awards         | -            | -               | -              |
| National Awards      | 2            | 2               | 3              |
| International Awards | 2            | 2               | 1              |
| Other                | -            | -               | -              |
| Total                | 4            | 4               | 4              |

## Academic Staff

On 1<sup>st</sup> January 2015 Long Service Award was given to Mr. G K A Dias, Senior Lecturer Gr. I, Ms. M S Rajapakshe, Senior Staff Assistant (Data Entry) and Mr. H A Sunil (Karyala Karya Sahayaka). Mr. Sunil and Ms. G.D.L.P. Gunaratne (Senior Staff Assistant) retired after servicing a long period for the university. Carder review meeting was held on 25<sup>th</sup> February. Institutional review was done during the latter part of the year to enable University of Colombo to submit their report include ours as well.

Two academics and a Senior Assistant Bursar (3 months) went on sabbatical during the year. Due to remuneration attractions in the industry UCSC has not been able to fill all the academic positions. Only 42 of the 86 Academic & Academic support carder positions are filled. Retaining trained technical personal and attracting good young academics were extremely difficult due to better prospects in the private sector. Beside the permanent staff to carry out daily activities UCSC rely on visiting staff for the information systems degree programme to deliver some of the courses. Due to the 2014, 180 day rule to make contract staff permanent 15 contract employees were eligible and become permanent in December 2015. Six assignment based employees appointments are still being reviewed.

In order to attract international human resources short term visiting researcher from Australia was hosted during the year.

Details of the UCSC academic staff is given in table 16.



Table 16: Staff Research Areas

| Subjects      | Medium  | Senior Professor | Professor | Senior Lecturer | Lecturer | Asst Lecturer | Instructor |
|---------------|---------|------------------|-----------|-----------------|----------|---------------|------------|
| Computing (P) | English | -                | 03        | 21              | 14*      | -             | 02         |
| Computing (C) | English | -                | -         | 01              | -        | 08            | 18         |

\*02 on leave

### Non-Academic Staff: Permanent (P) Contract/Assignment (C/A)

Online payment facility for external and extension programmes and postgraduate programmes was continued. Financial system at the UCSC was upgraded and a project to implement surveillance and barcode based asserts monitoring system was initiated.

Details of the UCSC non-academic staff is given in table 17. Although carder for 78 Non-Academic staff were approved for UCSC, only 37 permanent position have been filled and the most of the works are carried out by contract and assignment staff. 16 contract employees became eligible for permanent status based on UGC circular.

Table 17: Non-Academic Staff

| Type | Most Senior(Admin) | Senior Staff | Junior Staff | Minor Employees | Project Staff |
|------|--------------------|--------------|--------------|-----------------|---------------|
| P    | 8                  | 3            | 20           | 6               | -             |
| C    | -                  | 6            | 11           | 8               | 17            |
| A    | -                  | 1            | 10           | 9               | 7             |

### Staff Training and Overseas Leave

Two academics took Sabbatical Leave for one year, namely Prof ND Kodikara (from 1st Jan) and Dr. AR Weerasinghe (from 1<sup>st</sup> Nov). While on sabbatical Prof ND Kodikara visited in Melbourne, Australia from 24<sup>th</sup> Sept to 4th Oct.

Ten academic staff participated at conference/workshops overseas to present their research work, namely: Dr. HA Caldera (Italy), Dr MDRN Dayarathna (India and Malaysia), Dr TNK De Zoysa (India), Mr. KKK Dharmathilaka (Malaysia), Dr. (Mrs.) Yamaya Ekanayake (Australia), Mr. MGNAS Fernando (USA), Dr DD Karunaratne (Thailand), Ms TA Weerasinghe (Sweden), Mr MIE Wickramasinghe (Malaysia) and Prof GN Wikramanayake (Canada). Beside 11 academic staff attended Conference/workshops held overseas, namely: Dr SMKD Arunatilake (India), Dr MDRN Dayarathna (Italy), Dr TNK De Zoysa (Korea), Mr HEMHB Ekanayake (Sweden), Dr (Mrs) MDJS Goonetillake (Spain), Prof KP Hewagamage (Malaysia, Sweden (three time), Korea), Dr KL Jayaratne (Singapore), Mr SSP Mathara Arachchi, (Malaysia), Dr DN Ranasinghe, (India), Ms MWACR Wijesinghe (Singapore), Dr AR Weerasinghe (France).

Seven staff members also took personal leave to travel overseas, namely: Dr MDRN Dayarathna (India), Mr K S Goonatillake (Nepal), Mr DN Gunawardena (India twice), Dr KL Jayaratne (India twice, UK), Dr DN Ranasinghe (India), Ms RMPN Somaratne (UK) and Prof GN Wikramanayake (Malaysia and India).

Mr. MIE Wickramasinghe (Malaysia) and Ms. LNC De Silva (Sri Lanka) submitted their thesis and assumed duties while Mr. VB Wijesuriya (UK) returned after completing his Masters. Mr. HM Siriwardana (Japan) continued to be on study leave. Ms. RMPN Somaratne took study leave from December for her PhD studies in UK.



## Staff Welfare

### Insurance Scheme

An Insurance Scheme was introduced for the benefit of UCSC employees in the year 2013. Only around 1/3 of the employees joined this scheme and it was replaced by a claim system together with the Medical Centre of the University of Colombo in 2014 as premium paid which was much less than the claims. This scheme was continued in 2015 as well.

### Annual Trip

UCSC staff went on a welfare Trip to Singapore from October 23-27 in two batches. Welfare Society facilities for the staff with Fridge, Microwave were used effectively. Exercise equipment for use was introduced on 1<sup>st</sup> January 2015. UCSC through its generated funds contributed nearly 5 million for the welfare society activities. UCSC Welfare Society organized a musical show on 8th September to raise some funds for the annual trip.

## FINANCE

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### Recurrent Expenditure

UCSC contributes towards the day to day operations using generated income as treasury funds are inadequate to carry out the undergraduate activities. Cost per student for the undergraduate programme was 195,000 while for capital another 102m was spent. UCSC contributed 130 million for the internal undergraduate programme which was 56% of its undergraduate recurrent expenditure. Despite the increase in personal emoluments the government allocation was lower than the previous year. Breakdown of recurrent expenditure is given in table 18.

As adequate allocations were not provided to the UCSC a meeting was held with the UGC accountant on 5<sup>th</sup> January 2015 to discuss UCSC allocations.

| Table 18: Recurrent Expenditure |         | Rs. 000' |
|---------------------------------|---------|----------|
| Subject                         | 2014    | 2015     |
| Personal emoluments             | 124,691 | 148,462  |
| Travelling                      | 645     | 1,060    |
| Supplies                        | 8,969   | 6,489    |
| Maintenance                     | 5,303   | 5,400    |
| Contractual Services            | 37,614  | 35,810   |
| Other                           | 108,306 | 109,831  |
| Total                           | 285,528 | 307,052  |
| Government Allocation           | 93,716  | 122,300  |

### Capital Expenditure

UCSC invested in physical resources to improve its computing facilities. Several computer laboratories were replaced with state of the art equipment with generated funds. UCSC set up a barcode system to keep track of their assets. Equipment of the network operating centre was upgraded to meet increased throughput.



Details of capital expenditure are given in table 19. Recurrent and Project expenditure with financial progress is given in tables 20-24.

| Table 19: Capital Expenditure               |         | Rs. 000' |  |
|---|---------|----------|--|
| Subject                                     | 2014    | 2015     |  |
| Acquisition of furniture & Office Equipment | 37,328  | 16,875   |  |
| Acquisition of Machineries                  | -       | -        |  |
| Acquisition of Building & Structures        | 71,702  | 81,906   |  |
| Other                                       | 6,506   | 4,268    |  |
| Total                                       | 115,536 | 103,049  |  |
| Government Allocation                       | 15,000  | 43,082   |  |

### Projects (Local/Foreign Funded)

UCSC has a strong research group in several disciplines. Modelling & Simulation (Field Artillery Simulator, Electronic log book), e-Learning (Enhancing English language), Sustainable Computing (Elephant tracking), Food Security (Agriculture), Language Technology (Language Project), facial reconstruction and Auto Monitoring are among those that have reached the user community. UCSC has created a collaborative inter-disciplinary research culture as well as strengthen industry university collaboration.

Beside research based projects UCSC carry out consultancy services to public and private sector. UCSC is well known for some of its work in the past. UCSC has assisted with the National Elections since 1981 and two elections for Presidential and General which were carried out during the year. Birth Marriage certificates are now issued over the country using UCSC software. Sinhala language is supported in modern computers due to the efforts of UCSC through the design and development of Sinhala Unicode. Eight web sites were developed during the year. Besides University Grants Commission - Pension System, Management Information System for Farmers Pensions Scheme (Project enhancement), Payment Gateway system for Post Graduate Institute of Medicine and UGC, Tender Management System for State Pharmaceutical Corporation, Information management system of "Kapraka Ayojana" credit schema, Drug Abuse Management System for National Dangerous Drugs Control Board, License Information Management System and Online Client Contacts Repository are some of the ongoing projects of the Software development Unit. Some of the completed projects are Title Registration system, Case Tracking System for Attorney General's Department and SLRC Rin Bright Star.

Through the e-learning centre several e-testing based recruitment test were conducted for many organizations as well as e-testing for IT and English was done for HETC by the UCSC. UCSC also continued to carrying out Digital Forensic activities to assist court cases.

### Theekshana

Theekshana which was a company managed by UCSC was set up in 2006. Theekshana was able to attract local and international community interest within a year to end the of 2014/15 financial year with profit. Main attention was due to the Automated Fingerprint Identification System (AFIS) developed for Sri Lanka Police which also won eSwabimani Award for the best eGov and Data for 2014. Theekshana continued to support University Grant Commission (UGC) for their Admission system as well as the ministry of Public Administration on Birth Marriage and Death Certificate Issuance System, Customization of AtoM and LK Domain Registry. In addition, Theekshana had extended its support for the maintenance of BIT and MSc on-line and offline systems. Although consultancy income of Theekshana is dropped by 48%, total wealth of Theekshana has grown up by 11.85%. Theekshana has maintained Rs. 1.5 million profit before tax compared to the Rs. 4.2 million profit of last year because of high profit margins from some projects. Theekshana held its Annual General Meeting on 18 September 2015. Automated Fingerprint Identification System (AFIS) for Criminal Record was selected for the Finals of Manthan Awards in 2015 under e-Governance category.



## Exhibitions

UCSC participated at the Infotel exhibition and several others including some student projects for schools. Beside the weekly radio programme continued throughout the year.

Table 20: Recurrent Expenditure Rs. 000'

| Name & Detail  | Grant         | Funding Agency                       | TCE | RFA | DF |
|--|---------------|--------------------------------------|-----|-----|----|
| Tikiri DB  | 1,558         | Swedish Inst. of Computer Science    |     |     |    |
| Summer School Project  | 2,777         | University of Stockholm              |     |     |    |
| ASSERT   | 2,087         | Uppsala University                   |     |     |    |
| <b>Foreign Funds</b>   | <b>6,422</b>  |                                      |     |     |    |
| Field Artillery Simulation System  | 2,428         | Ministry of Defence                  |     |     |    |
| Three Dimensional Costal Surveillance System                                   | 2,655         | National Science Foundation          |     |     |    |
| Monitoring & Management of Crop Production                                     | 6,008         | National Science Foundation          |     |     |    |
| mLearning in different learning communities                                    | 1,020         | National Science Foundation          |     |     |    |
| Face ID-computer based forensic facial reconstruction for SL using 3D graphics | 1,569         | National Science Foundation          |     |     |    |
| Aircraft Training Simulation Project   | 1,008         | Ministry of Defence                  |     |     |    |
| Automated Content Based Auto Monitoring System                                 | 800           | National Centre for Advanced Studies |     |     |    |
| <b>Local Funds</b>   | <b>20,226</b> |                                      |     |     |    |

TCE – Total Cost Estimated; RFA – Request for Applications; DF – Discount Factor

## Project Expenditure (Local/Foreign Funded)

Rs. 000'

Table 21: Project Expenditure

| Name   | TCE<br>B/F Accu.<br>Cost | Exp<br>in 2013 | Exp<br>in 2014 | Cumulative<br>Exp as at<br>31.12.2014 | % of<br>Physical<br>Progress |
|--|--------------------------|----------------|----------------|---------------------------------------|------------------------------|
| Tikiri DB  |                          | 120            | 465            | 585                                   | 99%                          |
| Summer School Project  |                          |                | 2345           | 2345                                  | 100%                         |
| ASSERT   |                          |                | 656            | 656                                   | 25%                          |
| <b>Foreign Project Exp</b>   |                          | <b>120</b>     | <b>3,466</b>   | <b>3,586</b>                          |                              |
| Field Artillery Simulation System  | 1010                     | 458            | 515            | 1983                                  | 95%                          |
| Three Dimensional Costal Surveillance System                                   | 1709                     | 607            | 273            | 2589                                  | 100%                         |
| Monitoring & Management of Crop Production                                     |                          | 1666           | 1786           | 3452                                  | 50%                          |
| mLearning in different learning communities                                    |                          |                | 309            | 309                                   | 100%                         |
| Face ID-computer based forensic facial reconstruction for SL using 3D graphics |                          |                | 426            | 426                                   | 50%                          |
| Aircraft Training Simulation Project   |                          |                | 836            | 836                                   | 90%                          |
| Automated Content Based Auto Monitoring System                                 |                          |                | 335            | 335                                   | 100%                         |
| <b>Local Project Exp</b>   | <b>2,719</b>             | <b>4,515</b>   | <b>6,220</b>   | <b>13,454</b>                         |                              |



## Financial Progress (Expenditure)

Table 22: Financial Progress (Expenditure) Rs. 000'

| Subject                  | Provision | Exp     | Savings/Excess |
|--------------------------|-----------|---------|----------------|
| Recurrent except Project | 269,025   | 285,528 | (16,503)       |
| Capital except Project   | 199,450   | 132,206 | 67,244         |
| Project - Local funded   | 13,454    | 13,454  | 0              |
| Project - Foreign funded | 8,920     | 8,920   | 0              |
| Total                    | 4,908,490 | 440,108 | 50,741         |

## Financial Progress (Generated Income)

Table 23: Financial Progress (Generated Income) Rs. 000'

| Source of Revenue     | Provision | Collection | Deficit / Surplus |
|-----------------------|-----------|------------|-------------------|
| Undergraduate Studies | 2,775     | 4,366      | 1,591             |
| Postgraduate Studies  | 63,103    | 66,469     | (3,366)           |
| Consultancies         | 11,500    | 18,589     | 7,089             |
| External Degree       | 88,915    | 72,620     | (16,295)          |
| Other                 | 53,254    | 75,426     | 22,172            |
| Total                 | 272,801   | 237,470    | 11,191            |

Excluding the Undergraduate income UCSC earned 237,470,000. Generated income of the UCSC was much higher than most of the other universities and higher education institutes.

## Financial Performance Analysis

Table 24: Financial Performance Analysis Rs. 000'

| Subject                                | Formula                     | Exp. per Student |
|--|-----------------------------|------------------|
| Recurrent Expenditure per Student (RE) | RE / No of Student strength | 195              |
| Capital Expenditure per Student (CE)   | CE / No of Student strength | 134              |
| Total                                  |                             | 329              |

## Infrastructure Facilities Received in 2015

Although building of UCSC auditorium and lecture halls were approved promised 75 million was allocated by the UGC for the construction of the building. However building work was done using generated funds and by the end of the year UGC was able to give some leftover funds. Building of the 4 story structure was completed by the end of the year and it is expected to complete the project during 2016. Proposal to complete the administration building was not approved although it was submitted during mid-2014 to the ministry to get the cabinet approval. Details of the building work are given in table 25.

Table 25: Infrastructure Rs. 000'

| Infrastructure Details                 | Expenditure (Rs) | Physical Progress |
|--|------------------|-------------------|
| Canteen & Admin Building Block Phase I | 49,318           | 100%              |
| UCSC auditorium and Lecture Halls      | 108,408          | 30%               |



### **Any Other Details / Performance Relevant to this Report**

To enhance visibility locally and internationally UCSC activities were disseminated through the UCSC web site and Social Networks.

UCSC considers taking IT education and products to the periphery is one of their social responsibilities. UCSC continued community interface through SLBC Radio programme conducted every Wednesday morning from 9 to 10. UCSC also assist Ministry of Education and Schools in conducting Software Competitions including the International Olympiad in Informatics (IOI). Four member IOI team along with leader and deputy was selected to participate at the IOI'15 to be held from 26<sup>th</sup> July to 2<sup>nd</sup> August in Almaty, Kazakhstan was supported by the UCSC together with NSF. Team also competed at the Asia Pacific Informatics Olympiad (APIO) competition held on 9<sup>th</sup> May.

Meeting was held with the UCSC Alumni to reactivate the Alumni Association and the AGM was held on 8<sup>th</sup> October.



**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

**UNIVERSITY OF COLOMBO**

**COMBINED STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015**

| <u>ASSETS</u>                                     | Note | 2015<br>Rs           | 2014<br>Rs           |
|---|------|----------------------|----------------------|
| <u>Non Current Assets</u>                         |      |                      |                      |
| <u>Property, Plant &amp; Equipment</u>            |      | 214,728,408          | 230,982,413          |
| Loan Term Investment                              |      | 5,000,000            | 5,000,000            |
| Rehabilitation and Improvement of Capital Assets. |      | 33,533,975           | 34,451,935           |
| Construction Work in Progress                     |      | 108,407,695          | 26,500,920           |
| <u>Current Assets</u>                             |      |                      |                      |
| Inventories                                       |      | 2,800,202            | 2,755,377            |
| Current A/C                                       |      | -                    | -                    |
| Receivables & Prepayments                         |      | 55,962,035           | 68,937,373           |
| Cash & Cash Equivalent                            |      | 642,565,557          | 649,119,872          |
| Total Current Assets                              |      | 701,327,794          | 720,812,622          |
| <b>TOTAL ASSETS</b>                               |      | <b>1,062,997,874</b> | <b>1,017,747,900</b> |



**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**  
**UNIVERSITY OF COLOMBO**  
**COMBINED FINANCIAL POSITION AS AT 31ST DECEMBER 2015 (Contd.)**

| <u>EQUITY &amp; LIABILITIES</u>       | Note | 2015<br>Rs           | 2014<br>Rs           |
|---------------------------------------|------|----------------------|----------------------|
| <u>Capital &amp; Reserves</u>         |      |                      |                      |
| <u>Capital</u>                        |      |                      |                      |
| Govt. Capital Grant Unspent           |      | 7,155,617            | 11,708,963           |
| Govt. Capital Grant Spent             |      | 326,335,778          | 235,503,117          |
| Total Project Grants Unspent          |      | 3,083,213            | 9,096,416            |
| Total Project Grants Spent            |      | 6,567,467            | 12,517,918           |
| Contribution from UoC                 |      | 8,155,714            | 8,155,714            |
| Total                                 |      | 351,297,789          | 276,982,128          |
| <br>Reserves                          |      |                      |                      |
| Revaluation Reserve                   |      | 368,478,077          | 403,940,980          |
| Restricted Funds                      |      | 3,000,000            | 3,000,000            |
|                                       |      | 168,062,383          | 128,472,862          |
| <br><u>Non Current Liabilities</u>    |      |                      |                      |
| Retirement Benefit                    |      | 33,625,108           | 34,251,258           |
| <br><u>Current Liabilities</u>        |      |                      |                      |
| Other Accruals & Payables             |      | 138,534,517          | 171,100,672          |
| Current A/C                           |      |                      |                      |
| Total                                 |      | 138,534,517          | 171,100,672          |
| <b>TOTAL EQUITY &amp; LIABILITIES</b> |      | <b>1,062,997,874</b> | <b>1,017,747,900</b> |

...*[Signature]*...  
Deputy Bursar

The accounting policies on pages 1 to 5 and notes on pages 97 to 104 form an integral part of these Financial Statements. The Board of Directors is responsible for the preparation and presentation of these Financial Statements. These Financial statements were approved by the Board of Directors and signed on their behalf.

*[Signature]*  
Director

29.06.2016

*[Signature]*  
Deputy Director



**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

**UNIVERSITY OF COLOMBO**

**COMBINED STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER 2015**

|  | 2015<br>Rs   | 2014<br>Rs   |
|--|--------------|--------------|
| <u>Undergraduate Programme</u>                   |              |              |
| <u>Income</u>                                    |              |              |
| Government Grant                                 | 122,300,000  | 93,716,000   |
| Deferred Income - Grants                         | 17,264,973   | 15,261,355   |
| Other  | 5,015,342    | 4,367,219    |
|  | 144,580,315  | 113,344,574  |
| <u>Expenditure</u>                               |              |              |
| Personnel Emoluments                             | 116,837,727  | 89,779,332   |
| Traveling expenses                               | 392,231      | 161,441      |
| Supplies   | 5,724,199    | 8,057,216    |
| Contractual services                             | 34,312,251   | 37,313,552   |
| Retirement Benefits                              | 15,627,462   | 15,252,053   |
| Subscription, Contr. and Membership Fee          | 224,673      | 108,890      |
| Staff Development                                | 413,500      | 211,000      |
| Other Recurrent Expenses                         | 10,798,354   | 10,577,455   |
| Depreciation                                     | 30,017,067   | 21,418,266   |
| Total  | 214,347,465  | 182,879,205  |
| <i>Deficit from Undergraduate Programme</i>      | (69,767,151) | (69,534,629) |
| <u>Extension Programme</u>                       |              |              |
| Master Programme-(MSc)                           | 45,703,965   | 47,256,202   |
| External Degrees Centre -(BIT)                   | 10,837,541   | 37,012,897   |
| Computing Services Centre-(CSC)                  | 799,107      | 2,255,363    |
| eLearning Centre-(eLC)                           | 12,458,408   | 11,285,752   |
| Professional Development Centre-(PDC)            | (658,271)    | (289,738)    |
| Advanced Digital Media Technology Centre-(ADMTC) | (106,754)    | 788,354      |
| <i>Surplus from Extension Programmes</i>         | 69,033,996   | 98,308,830   |
| <u>Projects</u>                                  |              |              |
| Foreign Funded Projects                          | 6,365,898    | 35,302       |
| ICTer Conference -2015                           | 1,994,948    | 1,110,876    |
| IDRC Virtual Village                             | -            | 199,944      |
| <i>Surplus from Projects</i>                     | 8,360,846    | 1,346,122    |
| Theekshana                                       | 4,318        | 867,901      |
| Net Surpluses/( Deficit)                         | 7,632,010    | 30,988,224   |



**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

University of Colombo

Combined Cash Flow Statement for the year ended 31st December 2015

Cash Flows from Operating Activities

|   | Note | Rs           | 2015<br>Rs   | 2014<br>Rs    |
|---|------|--------------|--------------|---------------|
| Cash flow from operating activities                   |      |              |              |               |
| Deficit/Surplus for the year                          |      | 7,632,010    | 7,632,010    | 30,988,224    |
| <u>Adjustment for</u>                                 |      |              |              |               |
| Depreciation -  |      | 41,535,502   |              | 32,924,670    |
| Provision for Gratuity                                |      | 2,223,410    |              | 3,686,567     |
| Differed Income                                       |      | (21,388,101) |              | (19,585,628)  |
| Transfer from Previous Grant Received                 |      | (9,657,353)  |              | (10,048,003)  |
| Profit from sales of PPP                              |      | (17,550)     |              | (190,806)     |
| Exchange Gain   |      | (6,321,986)  | 6,373,922    | (408,592)     |
| Operating surplus before working capital changes      |      |              | 14,005,932   | 37,366,432    |
| Working capital changes                               |      |              | (19,635,637) | (11,886,227)  |
| Net cash generated from operating activities          |      |              | (5,629,705)  | 25,480,205    |
| Cash flows from investing activities                  |      |              |              |               |
| Acquisition of property plant & equipment             |      | (22,425,594) |              | (35,722,193)  |
| Infrastructure Development Activities                 |      | (63,131,487) |              | (89,612,748)  |
| Proceeds from sales of property plant & equipment     |      | 0            |              | 196,600       |
| Rehabili. & maintenance of property plant & equip     |      | (1,917,943)  | (87,475,024) | (6,133,904)   |
|   |      |              | (93,104,729) | (105,792,040) |
| Cash flows from financing activities                  |      |              |              |               |
| Capital grant received-Govt.                          |      | 45,000,000   |              | 15,000,000    |
| Capital grant received-Generated Funds(net)           |      | 58,477,820   |              | 41,343,330    |
| Transfers to infrastructure develop. Fund             |      | (87,467,258) |              |               |
| Sales of PPP  |      | 17,550       |              |               |
| Project Grant Received                                |      | 15,348,964   |              | 16,271,736    |
| Prior year adjustment                                 |      | 929,269      |              | 2,000         |
| Transfer of Project Balances                          |      | -            |              | 1,068,757     |
| Gratuity paid   |      | (2,797,809)  |              | (1,150,778)   |
| Receipts from Restricted Funds                        |      | 50,719,890   | 80,228,426   | 35,380,673    |
|   |      |              | (12,876,303) | 2,123,678     |
| Net Increase/decrease in cash and cash equivalent     |      |              |              |               |
| Exchange Gain/(Loss)                                  |      |              | 6,321,986    | 408,592       |
| Cash and cash equivalent at the beginning of the year |      |              | 649,119,874  | 646,587,603   |
| Cash and cash equivalent at the end of the year       |      |              | 642,565,557  | 649,119,874   |



UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

Financial Highlights

| Financial Year                                 | Rs. '000 |         |         |         |         |
|--|----------|---------|---------|---------|---------|
|  | 2015     | 2,014   | 2013    | 2,012   | 2,011   |
| Government Grant - Recurrent                   | 122,300  | 93,716  | 90,383  | 91,802  | 83,102  |
| Government Grant - Capital                     | 43,082   | 15,000  | 25,759  | 19,150  | 16,000  |
| Total Govt. Grant Received                     | 165,382  | 108,716 | 116,142 | 110,952 | 99,102  |
| Recurrent Expenditure U/Programme              | 184,330  | 160,901 | 133,190 | 111,212 | 92,310  |
| Capital Expenditure                            | 104,927  | 132,206 | 71,371  | 31,178  | 28,628  |
| Total expenditure U/programme                  | 289,257  | 293,107 | 204,561 | 142,390 | 120,938 |
| Contribution from Generated income             | 61,845   | 184,391 | 88,419  | 31,438  | 21,836  |
| Contribution from Generated Gross income -%    | 30%      | 78%     | 37%     | 16%     | 14%     |
| Contribution from Generated Net income -%      | 88%      | 163%    | 63%     | 28%     | 28%     |
| Generated Income                               | 211,430  | 247,470 | 242,025 | 194,230 | 159,429 |
| Recurrent Expenditure Extension Programmes     | 133,083  | 124,627 | 102,173 | 82,390  | 80,197  |
| Grant Received for the foreign funded projects | 14,176   | 9,713   | 9,341   | 5,639   | 6,202   |
| No. of Internal students                       | 770      | 850     | 879     | 737     | 737     |
| No. of Employees                               | 207      | 179     | 144     | 144     | 144     |
| Recurrent Cost per student P.A. ('000)         | 195      | 190     | 152     | 151     | 125     |
| Capital Cost per student P.A. ('000)           | 134      | 156     | 81      | 42      | 39      |
| Cost per employee P.A. ('000)                  | 881      | 795     | 774     | 670     | 578     |





# විගණකාධිපති දෙපාර්තමේන්තුව

கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்

AUDITOR GENERAL'S DEPARTMENT

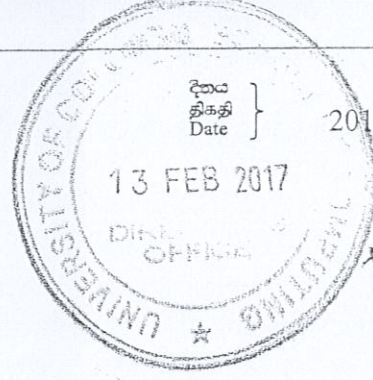


මගේ අංකය  
எனது இல.  
My No.

එවර්ඩ්/බී/යූසීඑස්සී/6/15/03

ඔබේ අංකය  
உமது இல.  
Your No.

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දිනය  
திகதி  
Date

2017 ජනවාරි 31 දින

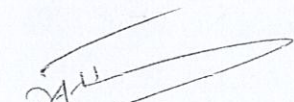
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කොළඹ විශ්වවිද්‍යාලීය පරිගණක අධ්‍යයන ආයතනය

කොළඹ විශ්වවිද්‍යාලීය පරිගණක අධ්‍යයන ආයතනයේ 2015 දෙසැම්බර් 31 දිනෙන් අවසන් වර්ෂය සඳහා වූ මූල්‍ය ප්‍රකාශන පිළිබඳව 2002 අංක 01 දරන කොළඹ විශ්වවිද්‍යාලීය පරිගණක අධ්‍යයන ආයතන නියමාවලියේ 23 වගන්තිය හා 1978 අංක 16 දරන විශ්වවිද්‍යාල පනතේ 108(1) වගන්තිය ප්‍රකාර විගණකාධිපති වාර්තාව

මාගේ සමාංක හා 2016 දෙසැම්බර් 09 දිනැති ලිපියට යොමුවේ.

02. ඉහත සඳහන් ලිපිය සමඟ එවන ලද මාගේ වාර්තාවේ ඉංග්‍රීසි අනුවාදය මේ සමඟ එවා ඇත.

  
පී.පී.ඩී.නායනකාන්ත

අතිරේක විගණකාධිපති

විගණකාධිපති වෙනුවට.

- පිටපත් :
1. ලේකම් - උසස් අධ්‍යාපන හා මහාමාර්ග අමාත්‍යාංශය
  2. ලේකම් - මුදල් අමාත්‍යාංශය
  3. සභාපති - විශ්වවිද්‍යාල ප්‍රතිපාදන කොමිෂන් සභාව
  4. උපකුලපති - කොළඹ විශ්වවිද්‍යාලය







**විගණකාධිපති දෙපාර්තමේන්තුව**  
கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல.  
My No.

HED/B/UCSC/6/15/03

ඔබේ අංකය  
உமது இல.  
Your No.

දිනය  
திகதி  
Date

09 December 2016

The Director,  
University of Colombo School of Computing

**Report of the Auditor General on the Financial Statements of the University of Colombo School of Computing for the year ended 31 December 2015 in terms of Section 23 of University of Colombo School of Computing Ordinance No.01 of 2002 and Section 108(1) of the Universities Act, No. 16 of 1978**

The audit of financial statements of the University of Colombo School of Computing for the year ended 31 December 2015 comprising the statement of financial position as at 31 December 2015 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 23 of University of Colombo School of Computing Ordinance No. 01 of 2002 enacted in terms of Sub-section 107(5) and Section 18 of the Universities Act, No. 16 of 1978. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 108(1) of the Universities Act appear in this report. A detailed Report in terms of Section 108(2) of the Universities Act will be issued to the Director of the Institute in due course.

## 1.2 Management's Responsibility for the Financial Statements

The management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.

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අංක 306/72, පොල්දූව පාර, බත්තරමුල්ල, ශ්‍රී ලංකාව. - - இல. 306/72, பொல்துவ வீதி, பத்தரமுல்லை, இலங்கை. - - No. 306/72, Polduwa Road, Battaramulla, Sri Lanka

+94-11-2887028-34

+94-11-2887223

oaggov@slt.net.lk

www.auditorgeneral.gov.lk





### 1.3 Auditor's Responsibility

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My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgements, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of financial statements. Section 111 of the Universities Act, No. 16 of 1978 gives discretionary powers to the Auditor General to determine the scope and the extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

### 1.4 Basis for Qualified Opinion

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My opinion is qualified based on the matters described in paragraph 2.2 of this report.







## 2. Financial Statements

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### 2.1 Qualified Opinion

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In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the University of Colombo School of Computing as at 31 December 2015 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

### 2.2 Comments on Financial Statements

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#### 2.2.1 Sri Lanka Public Sector Accounting Standards

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Even though the assets costing Rs.207,525,093 had been fully depreciated those were being in use further as the useful life of non-current assets had not been reviewed annually in terms of Sri Lanka Public Sector Accounting Standard 07. Accordingly, action had not been taken to revise the estimated error in terms of Sri Lanka Public Sector Accounting Standard 03.

#### 2.2.2 Unexplained Differences

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A difference amounting to Rs.75,821,489 was observed between the value of fixed assets shown in the financial statements and the value shown in the Register of Fixed Assets.

### 2.3 Accounts Receivable and Payable

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The following observations are made.

- (a) Even though a sum of Rs.1,747,525 was receivable in respect of services rendered to the Department of Examinations, the University Grants Commission and the National Science Foundation four years ago, adequate course of action had not been taken by the Institute to recover these balances







- (b) Loan balances totalling Rs.217,584 remained recoverable from three persons who had placed the University Provident Fund as surety in obtaining the Distress Loans those had not been recovered despite the elapse of periods ranging from 16 to 22 years.
- (c) Legal action in terms of the provisions in the Universities Act and Establishments Code for Higher Educational Institutions and in accordance with the agreements had not been taken for the recovery of the balance of Rs.6,057,990 remaining recoverable from three lecturers due to the breach of agreement bonds over periods from 5 to 12 years.

## 2.4 Non – compliance with Laws , Rules , Regulations and Management Decisions

The following non compliances were observed.

| Reference to Laws, Rules,<br>Regulations and Management<br>Decisions  | Non – compliance   |
|---|--|
| (a) Financial Regulations of the<br>Democratic Socialist Republic<br>of Sri Lanka<br>Financial Regulation 371 | Advances totalling Rs.8,738,543 had been<br>granted to 50 officers in the non-staff grade.   |
| (b) Public Finance Circular<br>No.03/2015 of 14 July 2015   | Advances ranging from Rs.104,150 to<br>Rs.325,750 exceeding the maximum limit of<br>Rs.100,000 for granting advances had been<br>granted by the Institution in 31 instances. |
| (c) Public Enterprises Circular<br>No.PED/25 of 29 July 2004  | An investment of Rs.561,816,857 had been<br>made without obtaining the Treasury<br>approval.   |
| (d) Establishments Code for the<br>University Grants Commission   | Salaries and allowances amounting to<br>Rs.61,951,795 had been paid in the year  |









- |   |  |
|---|--|
| <p>and Higher Educational Institutions<br/>Sections 3.1 and 3.2 of Chapter XX</p> <p>(e) Treasury Circular No.842 of 19 December 1978 and University Grants Commission Circular No.49 of 13 November 1979</p> | <p>under review without recording the attendance and leave of 39 academic officers of the Institute.</p> <p>A Register of Fixed Assets had not been maintained in respect of the non-current assets valued at Rs.5,269,536 included in the final accounts of projects.</p> |
|---|--|

## 2.5 Transactions not Supported by Adequate Authority

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The following observations are made.

- (a) Even though the approval of the Cabinet of Ministers with the recommendations of the University Grants Commission and the Minister of Higher Education should be obtained before the establishment of a company in the Institution, a Limited by Guarantee Company named Theekshana Company had been registered under the Companies Act in the year 2006 without such approval.
- (b) Out of the income earned from external courses conducted by the Institution, Honorarium amounting to Rs.2,102,100 had been paid in the year under review to the academic and non-academic staff without a proper approval.
- (c) Even though all income earned by the Institution should be credited to a Fund in favour of the Institution in terms of the Universities Act, contrary to that, 06 Funds had been maintained in various names by the Institution without proper approval. Further, a sum of Rs.39,349,567 out of the income earned by the Institution and a sum of Rs.40,332,985 out of the money received for foreign projects had been credited to the said Funds.









(d) Even though approval of the University Grants Commission should be obtained for the courses to be newly commenced by the Institution in terms of Section 3 of the School of Computing Ordinance, 5 courses of Master of Science, Doctor of Philosophy and Master of Philosophy had been conducted by the Institution without the approval of the University Grants Commission.

### 3. Financial Review

#### 3.1 Financial Results

According to the financial statements presented, the financial result for the year ended 31 December 2015 had been a surplus of Rs.7, 632,010 as compared with the corresponding surplus of Rs. 30,988,224 for the preceding year, thus resulting in a deterioration of Rs. 23,356,214 in the financial result of the year under review as compared with the preceding year. The increase of employee administration expenses by Rs.27,058,395 and the decrease in course income by Rs.29,274,834 despite the increase in Government grants by Rs.28,584,000 had been the main reason for the above deterioration.

In analyzing the financial results of the year under review and the four preceding years, the surplus had decreased in the year under review as compared with the 04 preceding years. However, in considering the employee remuneration, tax paid to the Government and depreciation for non-current assets, the contribution of the year under review had increased by 8 per cent as compared with the preceding year.

### 4. Operating Review

#### 4.1 Management Activities

The following observations are made.

(a) A transport allowance can be paid to the Guest Lecturers according to the distance based on the rates stipulated in the Public Administration Circular No.9/2010









followed by the University Grants Commission. Contrary to that, transport allowances totalling Rs.517,000 had been paid to 38 Lecturers at a fixed rate of Rs.1000 per day.

(b) A Medical Insurance Scheme was being operated by the Institution without the approval of the University Grants Commission, the Ministry of Higher Education and the General Treasury while a sum of Rs.2,159,349 out of the income earned from courses during the year under review and Rs.1,014,208 out of the surplus money of projects had been transferred to the said Fund. Medical bills amounting to Rs.3,137,921 had been reimbursed from this Fund during the year.

(c) A sum of Rs.3,204,717 out of the income earned from courses and foreign funds amounting to Rs.1,014,208 received for projects had been transferred to a Welfare Fund operated by utilizing funds of the Staff of the Institution. However, approval of the University Grants Commission, the Ministry of Higher Education and the General Treasury had not been obtained for the above transfer of funds.

#### 4.2 Operating Activities

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The following observations are made.

- (a) The balance of Professor V.K.Samaranayake Fund stated under Funds in the financial statements amounted to Rs.14,306,550 while this Fund had not been utilized for the intended purposes since the year 2012.
- (b) Advances had been granted without preparing an expenditure estimate properly forecasting the expenditure and as such advances totalling Rs.427,250 had been granted in 22 instances for the actual requirement of expenses amounting to Rs.160,112.







### 4.3 Transactions of Contentious Nature

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The following observations are made.

- (a) The Theekshana Company had been established as a separate legal unit, while its administration activities were being carried out at the School of Computing and the staff of the Institute and the staff of the Company were accommodated in the same Section, and the physical resources were commonly used. As a result, the orders and income of the computer system designing and the computer consultation could not be specifically identified.
- (b) Service of two Software Engineers who served on contract basis in the Institution had been terminated on 31 January 2015 and those two Engineers had been recruited to the Theekshana Company with effect from 01 February 2015.
- (c) As the main business purpose of the Theekshana Company was similar to the services rendered by the School of Computing , it was observed that the Theekshana Company is a competitive business of the School of Computing.
- (d) Accounting work of the Theekshana Company had been supervised by the Senior Assistant Bursar of the School of Computing and a sum of Rs.251,000 had been paid to the Bursar in this connection during the year of accounts.
- (e) In terms of the Nineteenth Amendment to the Constitution, the audit of Government Companies in which the Government and the Affiliated Institutions of the Government hold more than 51 per cent ownership should be assigned to the Auditor General. Nevertheless, the external audit of the Theekshana Company included in the consolidated financial statements in which the ownership of 100 per cent is held by the School of Computing had been assigned to a private audit firm without the approval of the Auditor General.



- (f) The Theekshana Company had adopted a policy of paying more than 80 per cent of the value of orders received from its clients as allowances to the staff including its Chief Executive Officer, thus most probably the total expenditure with other ancillary expenses would exceed the income. As such, the financial result of the year had been a surplus of Rs.4,318 indicating a marginal value despite a service income of Rs.5,005,000 received during the year 2015.

#### 4.4 Underutilization of Funds

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The balance in the Current Account maintained in respect of the foreign funds received for projects amounted to Rs.65 million as at the end of the year under review, and the balances of that Account of the years 2013 and 2014 amounted to Rs.44 million and Rs.51 million respectively. Accordingly, it was observed that the relevant money was not being properly utilized for the intended purposes and action had not been taken to earn an income by making short term investments from excess money.

#### 4.5 Staff Administration

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Action had not been taken to recruit employees for 92 vacancies existing in the approved staff of the Institution while 66 employees had been deployed further on contract basis extraneous to the approved staff by granting extensions of service.

### 5. Accountability and Good Governance

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#### 5.1 Internal Audit

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Despite the availability of a strong Internal Audit Division of the University of Colombo, with two Senior Internal Audit Assistants which carries out the internal audits of all Institutions affiliated to the University of Colombo, the internal audit of the School of Computing only had been assigned to a private audit firm and a sum of Rs.350,000 had been paid as annual internal audit fees during the year under review.



## 6. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Director of the Institute from time to time. Special attention is needed in respect of the following areas of control.

| Areas of Systems and Controls   | Observations  |
|---------------------------------|---|
| (a) Fixed Assets Control        | Lack of proper inventorying and revaluation of assets and non-maintenance of Inventories  |
| (b) Advance Control             | Granting advances to non-staff grade officers, granting advances exceeding the limit, granting advances without identifying the requirement |
| (c) Staff Administration        | Failure to take action to revise the approved staff and to fill the vacancies according to the staff requirement                            |
| (d) Commencement of new Courses | Failure to obtain the required approval   |

W.P.C. Wickramaratne

Acting Auditor General







06-01-2017

Auditor General  
Auditor General's Department  
306/72, Polduwa Road,  
Battaramulla

Sir,

**Report of the Auditor General on the Financial Statements of the University of Colombo School of Computing (UCSC) for the Year ended 31 December 2015 in terms of Section 23 of the University of Colombo School of Computing Ordinance No. 01 of 2002 and Section 108(1) of the Universities Act, No.16 of 1978**

*I submit replies for the above report with the recommendation of the Audit Committee held on 30-12-2016 and approval of the Board of Management held on 05-01-2017 at the UCSC.*

## **2.2 Comments on Financial Statements**

### **2.2.1 Sri Lanka Accounting Standards**

The institute has commenced the computerization and re-compilation of its Fixed Assets Register, and I would take action to revalue all the fully depreciated assets and to record revaluated values in the accounts under that.

- 2.2.2 The difference between the value of fixed assets included in the Accounts Statement and the value of the relevant assets of the Fixed Assets Register is not Rs. 75,821,489.00 but Rs. 62,681,382.00. The Fixed Assets Register shows a higher value because though the value of the disposed fixed assets had been eliminated in accounts records, it had not been eliminated in the Fixed Assets Register. This difference will be resolved after rectification of the Fixed Assets Register.

## **2.3 Accounts Receivable and Payable**







- (a) Reminders as well as verbal inquiries and follow up action were done to recover the receivable amounts from these institutes. I will give this a priority and take action to recover relevant amounts.
- (b) A request has been submitted to the University Grants Commission with a copy to the Auditor General to make steps to recover the amount of Rs. 217,584.00 receivable as distress loan from their Provident Fund.
- (c) Mr. S.J. Pahitharan (Rs. 3,440,575.75) Mr. Rukman Senanayake (Rs. 798,588.54) and Dr. Upali Wickramasinghe (Rs. 2,819,179.79). The Attorney General's Department has filed a case against Mr. S.J. Pahitharan under DMR/07902/10 at the District Court Colombo. The Attorney General's Department has been informed to take legal action against Mr. Mr. Rukman Senanayake. At the preliminary investigations done by the Police, it had been revealed that both of them have left the country. However, the Attorney General's Department has become unable to proceed with legal actions against them due to the unavailability of their foreign addresses. Nevertheless, the University Grants Commission has informed the UCSC to recover this amount from the Provident Fund balances of both of them. The Board of Management has grant its permission to pay Rs. 2,819,179.79, the amount that should be recovered from Dr. Upali Wickramasinghe with the interest, in 12 installments. Accordingly, he has paid Rs. 1,480,195.94 as at 15-12-2016, and in parallel the University Grants Commission has informed to recover the amount from his Provident Fund.

## 2.4 Non – compliance with Laws, Rules , Regulations and Management Decisions

- (a) Since there is only a very limited number of staff officers within the institute, and the staff officers alone could not obtain funds for all the programs done using advances, advances have been issued to non-staff grade officers of the permanent staff under the supervision of the staff officers.
- (b) As the activities such as conducting of examinations and student registration have to be performed out of the office in places like Jaffna, Galle and Kandy due to the nature of the external degree courses conducted by the institute, and as expenses have to be incurred at each occasion for those activities, the said advances have been issued with the approval of the director.
- (c) Within the year 2015 or 2014, any additional investment had not been done. Within the year 2015, cumulative investment had been reduced by Rs. 23 million. The Treasury

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approval has been requested for the investments done in each year before the year 2014 with the approval of the Boards of Management.

- (d) All the permanent non-academic staff of the institute mark their time attendance using the finger print machine. In addition, employees who are assigned in contract and daily basis also mark their arrival and departure time. However, the academic and academic support staff do not mark time attendance in the finger print machine.
- (e) The project assets cited in the query also have been included in the Fixed Assets Register.

I will take action to rectify the Fixed Assets Register by removing the relevant assets from the Fixed Assets Register.

## **2.5 Transactions not Supported by Adequate Authority**

- (a) The process of obtaining formal Cabinet approval in this regard has been commenced, and by now approval of the Council of the University of Colombo has been received to establish Theekshana Company and the request for Cabinet approval has been submitted to the Ministry of Higher Education.
- (b) This is not a honorarium, indeed, and is a payment done for the responsibilities borne and additional work done by the academic and administrative officers of the institute for the external degree course and postgraduate degree courses in addition to their normal duties.

These payments have been done by the provisions under indirect expenses of the approved budget estimates of each course.

This payment was indicated as indirect budget expenses, and this payment was made on the decision of the Board of Management on the recommendation made by the Finance and Management Committee stating that this payment should be made for the additional work performed by staff who engage in income generating related to external and postgraduate degree courses of the institute.

- (c) Various funds (Research & Development Fund, Student Distress Fund etc.) have been established by the institute subject to the provisions mentioned in the letter dated 30.04.2004 of the Secretary to the Treasury.







To transfer of funds to the fund pointed out in the quarry, provisions indicated as indirect expenses of the budget of each study course have been utilized subject to the approval of the Board of Management.

- (d) The approval of the UCSC Board of Management has been received for these 5 courses, and the request for getting approval in this regard has been submitted to the University Grants Commission.

#### **4. Operating Review**

##### **4.1 Management Inefficiencies**

- (a) In order to encourage qualified and experienced lecturers to serve in weekends for the Information Technology postgraduate degree courses conducted by the institute, this allowance was paid to reimburse some part of the personal transport costs incurred by them.

However, I would take action to rectify the above lapse pointed at the audit.

- (b) The institute had obtained an insurance coverage of an external insurance firm for the medical insurance of its staff members, and in the year 2014, after having studied in this regard, the Finance Committee of the institute has recommended to implement an internal medical insurance scheme similar to the medical insurance scheme, which is being implemented at the University of Colombo, and the Board of management has approved that it should be implemented.

The funds required in this regard was supplied through postgraduate and external degree funds and the contribution of the staff members. Approval has been received by the University Grants Commission letter No.UGC/F/HIS to use income earned by study courses for the relevant medical insurance scheme.

- (c) With the objective of enhancing productivity of the institute through personality development of all the academic, administrative and non-academic staff and to motivate their team work spirit, implementation of programs is done through the Welfare Society of the institute. Utilization of the provisions required in that regard through the provisions indicated under indirect expenses of the approved expenses of the income generating courses is done with the approval of the Board of Management on the Finance and Management Committee recommendation.







- 4.2 (a) Although professors who are competent with special skills and engage in research activities have visited this institute annually and engaged in work as per the criteria of this fund, they have rendered the said services voluntarily as a tribute to Prof. V.K. Samaranayake. Therefore, expenses have not been incurred from this fund.
- (b) This difference has occurred due to the re-settling of the amount that should be paid to the absent members from the advances issued for Board of Management payments, Finance Committee meetings and Audit committee meetings. Issuing of all the advances have been done only based on proper estimates.

### 4.3 Non-Disclosure of Transactions with related parties

- (a) Theekshana Company has paid the rent prescribed by the UCSC Board of Management for the physical resources utilized by that institute. Even though the Theekshana Company conducts its activities within UCSC premises, the institute has annually paid the rent approved by the Board of Management.

All the projects referred to the UCSC are awarded only to the UCSC and only the projects offered competitively under procurement process are obtained by Theekshana Company. Accordingly, we declare with utmost responsibility that none of the projects awarded to the UCSC were given to the Theekshana Company.

- (b) These two employees had served as software engineers at UCSC under contract basis. However, since the UCSC is a government institute, the post of software engineer or its salary scales had not been included in the cadre. Within such a situation, as the UCSC could not offer salaries and remuneration requested by them, they had resigned from their posts. Thereafter, Theekshana Company have recruited these two employees on their provisions.
- (c) The University of Colombo School of Computing is a higher education institute and its basic objective is to conduct degree courses and noetic and certificate courses. The Basic objective of the Theekshana Company is create and develop software on national and international requirements. Therefore, we firmly declare that the objectives of the UCSC and Theekshana Company are not similar to any extent. So that, Theekshana Company is not a competitive firm for the UCSC.
- (d) The Senior Assistant Bursar had done this activity outside this official duties and it is not his official duty. It was an activity which he had performed outside his normal duty hours







using his professional knowledge on the approval of the Director, and this has not caused any interference or affect for the duties of the UCSC.

- (e) Theekshana Company is a Limited by Guarantee company established under the Companies Act with the sanction of the UCSC. Its members are permanent staff of the UCSC and they have obtained membership by paying Rs. 100.00. Under the UCSC Ordinance, the institute is not vested with a direct authority to establish a company. I would take action to inform the matters inquired from the Board of Directors of Theekshana Company by the Auditor General to make a decision, through the Board of Management of the UCSC.
- (f) Expectation of establishing Theekshana Company is to provide a service by fulfilling national and international software requirements. For example, fingerprint identification software developed for the Department of Police on its request, which is implemented island wide at present, software for university admissions for the University Grant Commission, Birth, Marriage and Death Issuance Software for the Register General's Department, and online e-filing System for Fundamental Rights of Supreme Court. These services were rendered by the Theekshana Company not with a profit oriented objective but considering the national requirement. The Theekshana Company was established as a not-for-profit Company. However, this audit quarry will be submitted to the Academic Board of the company through the Board of management of the UCSC.

- 4.4 These balances are consisting with the amount remaining after successful completion of the relevant projects and with the investment income of the said funds. The relevant projects were successfully completed and audit activities were also finalized. However, the institutes that supplied relevant funds have not yet submitted their recommendations regarding the progress of those funds. Therefore, the Board of Management has decided that those funds should be transferred to the Research and Development Fund of the institutes for its security.

The balance was existed in US \$ in Resident Foreign Currency (RFC) accounts and US \$ fixed deposits opened in that regard.

#### 4.5 Staff Administration

Since a pre-trained staff is required to be recruited for the services of the UCSC, the staff recruited suitably for the academic support and non-academic posts on the training basis at its commencement are being serving, and since currently the Department of Management







Services is conducting an evaluation and investigation regarding the number of employees needed for this institute on Zero base, after completing that task the existing staff will be recruited for the permanent cadre.

## **5. Accountability and Good Governance**

### **5.1 Internal Audit**

We have informed the University of Colombo, in writing, that there isn't any objection to carry out internal audit affairs of our institute by the Internal Audit Unit of the University of Colombo. However, the Senior Assistant Internal Auditor informed at the Audit Committee that the reason for performing only the pre-auditing of the tasks such as payment of employee salaries, payment of contracts, releasing of University Provident Fund of our institute by that unit in the past few years was due to the heavy work load that had to be covered by the limited staff possessed by that unit.

The Board of Management of our institute has decided that an independent investigation should be carried out regarding the transactions taken place island wide in the programs operated by our institute such as the external degree program.

From the beginning, the progress of the institute has been immensely supported due to this internal auditing, and the Board of Management has decided that the expenses incurred for that is much lower than the benefits received from that.

## **6. Systems and Controls**

### **(a) Fixed Assets Control**

Assets of this institute have been inventoried. Committees have been appointed for the revaluation of assets that are fully depreciated as per the book value. Accordingly, inventorying of revaluated assets that are currently being used but fully depreciated as per the book value as at 31-12-2016 will be completed before 15-01-2017. This issue will be solved after completing these tasks.

(b) I have noted.

### **(c) Staff Administration**



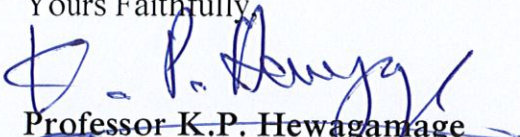




Since an evaluation is being carried out by the Department of Management Services regarding the cadre of the UCSC, the vacancies will be filled after receiving its approval. These tasks could not be completed until the approval of the Department of Management Services is received.

(d) I have noted.

Yours Faithfully

  
**Professor K.P. Hewagama**  
Director

- Copies: 1. Secretary, Ministry of Higher Education & Highways  
2. Secretary, Ministry of Finance  
3. Chairman, University Grants Commission  
4. Vice Chancellor, University of Colombo  
5. Audit Superintendent -University of Colombo Branch



