



Annual Report 2013



UNIVERSITY OF COLOMBO
SCHOOL OF COMPUTING

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

CONTENTS

Vision and Mission	01
Director's Review	02
At a Glance.....	03
Overview of the UCSC	05
Governance	06
Education	08
Programmes and Students	08
Undergraduate Education	08
Postgraduate Education	15
External Degree & Extension Courses.....	17
Foreign Students	19
New Courses Started	19
Research	20
Research, Innovation and Publications	20
Conferences, Seminars & Workshops	21
Awards Received	21
Academic Staff	22
Non-Academic Staff: Permanent (P) Contract/Assignment (C/A)	22
Finance	24
Recurrent Expenditure	24
Capital Expenditure	24
Projects (Local/Foreign Funded).....	26
Project Expenditure (Local/Foreign Funded).....	26
Financial Progress (Expenditure)	26
Financial Progress (Generated Income)	26
Financial Performance Analysis	27
Infrastructure Facilities Received in 2013	28
Any Other Details / Performance Relevant to this Report	28
Audited Financial Statement 2013	29
Auditor General's Report 2013	33
UCSC Comments on AG's Report 2013	39

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

ANNUAL REPORT AND ACCOUNTS FOR 2013

VISION & MISSION

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 society through ICT
7. To make significant contributions and to provide professional services to position the country as a knowledge hub

DIRECTOR'S REVIEW

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. 769 internal undergraduates enrolled for the four degrees programmes offered via the UGC intake based on the revised curriculum. Beside 1,275 science graduates were trained in use of IT in respective scientific domains and 2,034 students were provided the opportunity to do the BIT degree as an external student. 303 students were trained for the master's degree while 39 enrolled for research degrees. From those who enrolled in previous years 448 completed degrees at undergraduate level and 128 at postgraduate level including 6 MPhil graduates.

To distinguish from other training institutes UCSC put a lot of emphasis on creating new knowledge through research. Staff published 70 conference and journal papers. UCSC also continued to carry out consultancy projects for the government ministries and other organizations. Staff and Students continued to be successful at national events winning the overall National Best Quality ICT Award beating 46 other commercial products that competed. Both students and staff won 22 awards at national and international events thus maintaining high standards in Postgraduate Research. 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.

Our strategic plan was reviewed to look into new avenues. Work proposed for external degree and commercialization of research through the Higher Education for the 21st Century (HETC) initiative continued successfully. UCSC continued to support the HETC funded programmes such as testing 13,814 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 completed areas already used by undergraduate and postgraduate students. This will partially address some 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 20 PhD holders further strengthen its academic pool to partially address the shortage of its Human Resources. Overseas staff exchange programme with Umea University was continued and for the first time students exchange with the same university commended during the year.

With the completion of the curriculum development to align existing degree programmes with international standards intakes leading to new degrees in Software Engineering commended during the year. Employability of our graduates also match 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 programme.

UCSC AT A GLANCE

		2011	2012	2013
Education (Enrolled/Graduated)				
Internal Undergraduates	All	737	738	769
	In	238	-	254
	Out	223	220	212
Science Undergraduates		1160	1267	1275
External Diploma	All	4287	4166	4175
	In	2365	2029	2034
	Out	576	654	611
External Higher Diploma	All	2019	2390	2391
	In	863	974	714
	Out	309	262	305
External Degree	All	1293	1413	1416
	In	442	476	312
	Out	129	172	194
Postgraduates	All	531	523	303
	In	143	158	143
	Out	94	156	122
Extension Programmes		678	528	309
Research				
Research (MPhil/PhD)	All	46/00	41/01	39/07
	In	13	10	09
	Out	1	3	6
Research Projects	All	05	05	05
	New	1	2	1
Publications		65	68	70
Consultancy Projects				
	Local	14	12	10
	Foreign	01	01	-
Social Responsibility Programmes		10	10	10

		2011	2012	2013
Governance				
Permanent Academic Staff	All	36	37	36
	Professors	02	02	02
	PhD	18	19	20
	Masters	12	12	10
Permanent Academic Support Staff		02	04	04
Temp Academic Staff (Instructors & Asst. Lect.)		11	12	15
Permanent Admin and Non-Ac Staff		32	34	40
Contract Staff (including casual & trainee)		37	67	49
Research/Project Staff		14	10	11
Finance				
Annual Recurrent Expenditure (Millions SLR)		92	111	133
Treasury Grant (Recurrent) (Millions SLR)- Act.		83	92	90
Treasury Grant (Capital) (Millions SLR) – Actual		16	19	26
Generated Income		159	194	242
UCSC Contribution for UG (Millions SLR) (Generated %)		22 (14%)	31 (16%)	88 (37%)
UCSC Budget (Millions SLR)		205	246	286
Research/Project (Millions SLR)		6.2	5.6	9.3
Cost per Employee (SLR '000s) per annum		578	670	774
Cost per Student (SLR '000s) – Treasury Recurrent		125	151	152
Infrastructure				
Library Books		10,214	10,405	8,303
Computers : staff		1:1		
Computers : students (General students)		1:4		
(Special students)		1:1		
Space Utilization (employee) (sq. m.)		9.42	9.42	10.42
Space Utilization (student) (sq. m.)		1.90	2.32	2.68

OVERVIEW OF THE UCSC

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 the setting up of 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 in 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 1st September 2002. Prof. 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.

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

As laid down in the corporate plan, core areas of activity of the UCSC are *Education, Research, Consultancy* and *Social Responsibility*. Of these, Research has been recognized as the central pillar which sets the UCSC apart from the rest of the ICT Education sector, and which contributes in turn to the other three pillars. These pillars themselves are supported by two main sources; the Human and Physical Infrastructure/Resources and the Administrative/Financial services. In addition, all these aspects are held together and directed for optimal efficacy by a 'roof' of Good Governance.

Management

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

Officers of the UCSC

Director: Prof GN Wikramanayake; **Deputy Director:** Prof ND Kodikara;

Heads of the Departments of the UCSC

CIS: Mr GP Seneviratne; **CMT:** Mr GKA Dias; **ISE:** Dr DD Karunaratna;

Centre Coordinators of the UCSC

ADMTC: Mr ST Nandasara; **CSC:** Mr. LP Jayasinghe; **EDC:** Mrs SP Ariyaratne; **eLC:** Dr KP Hewagamage; **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

12 monthly meetings and 03 Special Meetings of the Board of Management were held during the year. The composition of the Board of Management is given below.

Director (Chairman); Deputy Director; Heads of Dept (CIS/CMT/ISE); **Nominee/Secretary, Ministry of Higher Education:** Mr Piyasena Ranepura; **Nominee/Ministry of Finance:** Mr R Uduwawala (up to May) & Mr P A Dias (from June); **Dean, Faculty of Science:** Prof TR Ariyaratne & Prof K R R Mahanama (Act. Feb-May); **Nominees of Council, UOC:** Mr C Maliyadda & Mr. H M N Warakaulle; **Nominees of Senate, UOC:** Prof KH Thennakoon & Prof. PSM Gunaratne; **Nominees of the UGC:** Mr S Mudalige & Deshamanya Mr MDD Pieris; **Representatives of the IT Industry:** Mr Mano Sekeram & Mr D B Saparamadu; **Nominees of Academic Syndicate, UCSC:** Dr DN Ranasinghe, Dr GDSP Wimalaratne, Dr MC Jayawardena (up to July), Dr D A S Athukorale (from Sept); Former Director (Invited): Dr AR Weerasinghe.

Two Sub-Committees, the Finance & Management Committee and the Audit Committee assisted the Board of Management. The two committees held 03 and 04 meetings respectively during the year. Composition of the two committees is given below.

Finance and Management Committee

Director (Chairman); Deputy Director; Mr Piyasena Ranepura; Mr R Uduwawala (until May) & Mr. PA Dias (from June); Prof TR Ariyaratne; Deshamanya Mr MDD Pieris.

Audit Committee

Mr Sujeewa Mudalige (Chairman Finance Specialist); Deputy Director; Mr C Maliyadda; Mr Piyasena Ranepura; Mr R Uduwawala (until May), Mr PA Dias (from June), Ms. S Sunanda (Auditor General's Representative), Internal Auditors (E&Y).

Academic Syndicate

12 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:** Dr RAC Ranasinghe; Senior Academics (UCSC); **Two Teaching Staff:** Mr MPMK Silva; Mr. WMR Weerasuriya (until May); Dr. H Usoof.

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 10, 11 and 11 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	1,072	48	62
Research and other Projects	53	13	10
Extension courses	309	22	28
External degree	5,778	55	34
Online	13,814	15	15
Other – Faculty of Science	1,275	20	2

Undergraduate Education

Computing for undergraduates were first introduced way back in 1967 as part of Faculty of Science. UCSC continues to offer this opportunity for faculty of science 1,275 students. Computing as a degree commenced in 1990. All together 2,044 undergraduates are being trained at the UCSC. UCSC currently offers Computer Science (CS) degree for 494 students and Information Systems degree (IS/ICT) for 275 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 to 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) has been 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. 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. Due to the above changes the UCSC had to conduct six Internal Undergraduate Degree programme in the year 2013 instead of the usual four.

Under the Computer Science stream degree programmes conducted in the year 2013, the degree of Bachelor of Science in Computer Science (BSc. in CS) was conducted for 1st year students and the degree of Bachelor of Computer Science (BCS) was conducted for the 2nd and 3rd year students. The degree of Bachelor of Science in Computer Science (BSc. in CS) was conducted for the 4th year students. CS degree stream select students from A/L physical science stream while the ICT degree is open to all streams.

Under Information Systems stream, the degree of Bachelor of Science in Information systems (BSc. in IS) was conducted for 1st year students, and the degree of Bachelor of Information and Communication Technology (BICT) was conducted for the 2nd and 3rd year students. The Bachelor of Science in Information and Communication Technology (BSc. In ICT) was conducted for the 4th year students. The curriculum of this programme also emphasizes the importance of soft skills such as communication and teamwork. Programme also open for any A/L stream and hence a screening aptitude test is held to qualify students.

Enrolment

Under the 2012/2013 intake, the UCSC admitted a batch of 153 students for the Degree in Computer Science, while 101 students were admitted for the Degree in Information Systems for the 2012/2013 Academic Year. In 2013, the total number of registered students at the UCSC stood at 769. The breakdown of this number is given in Table 2. It was observed that most of the students who obtained the 3-year Degree were recruited by reputed firms in the IT industry on lucrative contracts, even before they could complete their 3rd year industrial placements. Eight repeaters also graduated with this batch.

Table 2: Internal Undergraduate Programmes

Course	Intake 2012	1st Year Students	2nd Year Students	3rd Year Students	4th Year Students	Total	No of Graduated
BSc in Computer Science	153	153	-	-	-	153	-
Bachelor of Computer Science	-	-	155	146	-	301	97
BSc in Computer Science	40	-	-	-	40	40	39
BSC in Information Systems	101	101	-	-	-	101	-
Bachelor of ICT	-	-	78	76	-	154	56
BSc in ICT	20	-	-	-	20	20	20
UCSC Undergraduates	314	254	233	222	60	769	212
BSc Faculty of Science	-	520	430	285	40	1275	-
Internal Undergraduates	316	774	663	507	100	2044	212

All courses are conducted in English Medium

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. 12 persons were invited as visiting lecturers to conduct 10 courses of the ICT degree programme.

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. During the year PDC placed 218 undergraduates at 76 organisations for their 6 months training. This included two UCSC students placed at Umea University under the Linnaeus-Palme student exchange programme. Two students from Umea University were placed in Colombo, Sri Lanka. 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. Credit transfer was offered for these two students. Through these lectures, the undergraduates were provided with a good orientation program and preparation before being sent for Internship. They were clearly communicated of the objectives and skills to gain during the internship.

Apart from the industrial training, the PDC organised Soft Skill Development Programme for the 4th year undergraduates with the aim of improving their soft skills that are much needed in the industry to get a "foot in the door" of their profession. Areas addressed included Presentation Skills, Communication Skills, Team Building, Time Management, Stress Management, Personal effectiveness, Conflict Resolution, Problem Solving, Corporate culture, Leadership skills, Entrepreneurial Skills. Organizing a career fair for students, industry visits, conference and symposium communications were among other activities. Career fair was held on 31st October with most students to secure employment prior to sitting their final examinations which was in December 2013 and January 2014.

Student Welfare

A laptop was donated to a needy 1st year student on 26th June by a donor in Australia.

Hostel

In the year 2013, the UCSC provided residential facilities for the most needy 1st 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 for First Year students in Kirulapone and Girls' Hostel for First Year students in Kohuwala accommodated 40 and 30 students respectively.

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 also commenced during the year.

Counselling

Services of four Student Counsellors (two Lecturers and two Senior Lecturers) were provided to all students. Also, the service of a Professional Counsellor was obtained for a duration of 3 hrs a week to facilitate the students who required counselling.

Financial Assistance to undergraduate students

Financial assistance was given to 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 320 students. The value of Merit and Ordinary scholarships were Rs 2,550/= and Rs 2,500/= respectively.

Bursaries

Bursaries were awarded in accordance with UGC Circulars which governs the selection of students for bursaries. The breakdown of the Bursary recipients for the year 2013 is depicted in the following table. The value of a full bursary and a half bursary was Rs 2,000/= and 1,900/= respectively.

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

Year of Intake	Year of Study	Mahapola Scholarship Awardees	Bursary Recipients
2012	1 st year	116 (45%)	30 (12%)
2001	2 nd year	109 (47%)	26 (11%)
2010	3 rd year	85 (38%)	26 (12%)
2009	4 th year	20 (33%)	04 (07%)

Industry Scholarships

Four external organizations had sponsored Scholarships for the needy students, namely: Millennium Information Technologies Ltd. (MIT); Navantis IT (Pvt) Ltd.; IFS R&D Limited (IFS); and MIND.

Shorea Robusta Scholarship

A Special scholarship named “Shorea Rubusta” scholarship 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 2013 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 2012/13 and the office bearers were elected uncontested. President: Mr. BDHK Jayamanna; Vice president: Mr. DVBC Jayasinghe; Secretary: Mr. SR Muthutantrige; Editor: Mr. JPDS Jayasinghe; Junior Treasurer: Mr. VA Isuru; Committee Members: Mr. SK Walpita; Mr. M Sathees; Mr. MH Hamza; Mr. BC Senarathna; Mr. EN Jayasuriya; Mr. MMM Shifan; EAKA Edirisuriya; HAND Hettiarachchi. Mr. MGNAS Fernando continued as the Senior Treasurer.

Student Activities

Student activities are carried out through the student union mainly to promote cultural, ritual and recreation activities. These activities included Freshers' Welcome (3rd Nov); Pirith Ceremony (27th Jan); Sports Day; Paduru Sajaya (31st May); Blood Donation Campaign; Vesak decorations with rotating lantern; Going Down Party; Christmas Crib and Carols; Poson Dansala and Poson Bathi Gee Ceremony; Vani Vila Ceremony; Batch trip. UCSC students conducted several workshops at UCSC and at Schools to assist students and teachers with GCE (O/L) & (A/L) ICT.

Student Achievements

Students won the **National Best Quality ICT Awards (NBQSA) Gold** for Tertiary (Business): R Rajapakse, AK Madugalla, PIU Amarasinghe & VH Padmathilake, "FaceID: A Facial Muscle Anatomy Based Solution For Forensic Facial Reconstruction in Sri Lanka"; NBQSA **Bronze** for Tertiary (Technology): YMK Priyadarshana, "Sensing Environment Through Mobile: A Personalized Wearable Obstacle Detection System for Visually Impaired"; NBQSA **Merit** for Tertiary (Technology): S Chandani, D Kiriella, K Ranasinghe, "Swaraloka (Adaptive Music Score Trainer for Visually Impaired in Sri Lanka)" and Two **Merits** for NBQSA Tertiary (Business): NT Perera, MM Wijesooriya, IS Wijerathne, "ICT Based Education for Students with Special Educational Needs" and SDW Gunawardhane, PM De Silva, DSB Kulathunga, "Non Invasive Human Stress Detection Using Key Stroke Dynamics and Pattern Variations"

Asia Pacific ICT Awards (APICTA) Merit was won by YMK Priyadarshana, "Sensing Environment through Mobile: A Personalized Wearable Obstacle Detection System for Visually Impaired" held in Hong Kong. This project was supervised by Dr. Wimalaratne.

Automated Guided Wheelchair by Y Lokuge, P Madumal, T Kumara & N Ranasinghe was placed **1st Runners-up** at **Inter University Innovations Championship 2013**.

77 teams participated at the **IEEEExtreme 7.0** competition and the best among UCSC was placed 185 in the world and 55th in the region.

UCSC students won the **Silver** Award with prize money of 30,000 for securing the second place at the **Code Fest 2013** held at SLIIT Malabe. This event was organized by the Faculty of Computing, SLIIT. "LocTip" of the UCSC was the team that won this award and it was one of the 22 University teams participated in the preliminary rounds. All five members: PAA Randika (2012/CS/114); MS Kumarage (2012/CS/075); LARH Perera (2012/CS/103); A Edirisuriya (2012/IS/016); KKTP Ranathung (2012/CS/112), of the LocTip team were first year undergraduates of the UCSC.

S Amarasinghe, M Alwis, A Perera fourth year students of the UCSC was placed the second runners-up at **CERT Security Quiz 2013** held on 25th September organized by Sri Lanka CERT.

'Google I/O Extended Colombo – 2013' is the first ever **Google I/O extended** event in Sri Lanka. UCSC students won the **1st** (SS Karunarathna) and **2nd** (R Perera) place at this Hackathon competition is held over 1-2 days where students develop a piece of working software using technologies.

UCSC Students were placed **1st Runners Up** at **Unilever Challenge - Lipton Talent Hunt 2013** held at Cinnamon Grand, Colombo on 30th November 2013. The UCSC team members were P Samarakone (2011/CS/199); S Muthutantri (2011/CS/039); N Lakmini (2011/ICT/029); S Suntharalingam (2011/ICS/038).

P Samarakone (2011/CS/199) emerged as the **second runner up** at the All Island **Inter University Best Speaker** Competition 2013 organized by the Gavel Club of University of Kelaniya.

Kavitha Talent competition promotes creative artistic talents by giving opportunities for the educated generation to develop, present and display their numerous artistic talents. Mr. HD Perera (2010/ICT/032) was placed **3rd** under Electronic Media - Creative Television Broadcaster of The Year.

UCSC won 4 awards (2 winners and 2 appreciation certificates) at the **e-Swabhimani** 2012 Awards held on 10 January 2013. Staff research project on “Field Artillery Simulation System” was one of the winners in the e-Science and Technology category. Rest were student projects.

Sports

Two students, namely GADM Ganepola (2011/ICT/027); BLW Witharana (2011/ICT/028) participated at the 8th UITM International Sports Fiesta in Tennis held in Malaysia. GKRB Gajanayake (2012/CS/048) participated at the same event in Badminton. NANSS Mihindukulasuriya (2010/ICT/001); MPC Perera (2011/ICT/013); C de Alwis (2011/CS/032); S Chandrasekera (2011/ICT/031) took part at Varsity Boat Race, Malaysia from 22-27 Oct.

Following UCSC students were appointed captain and vice-captain of the University of Colombo for respective sports or UCSC team have won the mention trophies at the 2013 colours night.

Athletics / Track & Field: Mr. D.P. Edirisinghe Challenge Trophy for **Overall Champions** in Athletics; Mr. M.A.D.C.H. Manathunga Challenge Cup for Athletics (M), **Faculty Trophy; Colours List (M)** - M.A.M. Perera (2010/CS/193), M.W.S.C.S.V. Withanage (2010/CS/044); **Colours List (W)** - K.G.I. Sandeepani (2011/CS/165); **Captain (M)** M.W.S.C.S.V. Withanage (2010/CS/044); **Vice-Captain (M)** A.M. Perera (2010/CS/193).

Badminton: Colours List (M) - H.L.C. Perera (2010/CS/109); **Colours List (W)** - D.G.U. Amarasinghe (2010/CS/205), T.D.P. Peiris (2010/CS/105); **Captain (W)** T.D.P. Peiris (2010/CS/105); **Vice-Captain (W)** D.G.U. Amarasinghe (2010/CS/205).

Baseball: Colours List (M) - S. Suntharalingam (2011/ICT/038), I.A. Wijesinghe (2011/CS/036).

Carrom; Colours List (M) - N.T. Peiris (2010/CS/171), E.D.S.C. Karunapala (2010/CS/171), G.C.E. Witharana (2010/CS/218); **Colours List (W)** - P.M. Kalpana Anjali Madugoda (2011/CS/160), H.H.I.D. Florence (2011/CS/062).

Chess: Colours List (M) D.C. Malimage (2011/CS/195), A.N. Nethmini (2010/CS/080); Saliya Parakrama Memorial Trophy for **Overall Champions** in Chess; 1993 Amalgamated Club Challenge Cup for Chess (Men), **Faculty Trophy**.

Football: Colours List - K.B.G.T.M. Kulasekara (2011/CS/177).

Hockey: Colours List (M) - A.A.J. Bhagitha (2011/ICT/017); (W) L.R. Ediriweera (2010/ICT/081), P.M.S.K. Palansooriya (2010/ICT/110), C.K. Waduge (2009/ICT/067), K.H.I. Vindya (2010/ICT/063), K.G.H.U. Deshappriya (2011/CS/208); Ms. R. Wijerathne for Hockey (Women), **Faculty Trophy; Vice Captain (W)** Ms. P.M.S.K. Palansooriya (2010/ICT/110).

Karate: Overall Championship; Challenge Cup for Karate (Men), Faculty Trophy; Colours List (M) - R.S.K. Samarasinghe (2010/ICT/061), I.A.D.K.C.W. Gunarathna (2011/ICT/053); (W) - Ms. L.G.A. Thilanka (2011/ICT/063); **Vice Captain (M)** Mr. I.A.D.K.C.W. Gunarathna (2011/ICT/013).

Road Race: UCSC Challenge Cup for Road Race, **Faculty Trophy**.

Rowing: Colours List - (M) N.A.N.S.S. Mihindukulasooriya (2010/ICT/001)

Rugby: Colours List - I.N. Dewapriya (2011/ICT/026), G.P.N. Perera (2010/ICT/058).

Swimming: Merit Certificate (W) - Ms. J.K.U.R.P. Jayawardena (2010/ICT/017); **Colours List (M)** - G.B.S. De Silva (2011/CS/168); **(W)** - Ms. J.K.U.R.P. Jayawardena (2010/ICT/017); **Vice Captain (W)** Ms. J.K.U.R.P. Jayawardena (2010/ICT/017).

Teakwondo: Colours List (M) - A.P.T. Visvakula (2011/CS/049)

Tennis: Colours List (M) - H.L.C. Perera (2010/CS/109); **(W)** - Ms. GADM Ganepola (2011/ICT/027) & Ms. BLW Witharana (2011/ICT/028)

Volleyball: 2013 - Colours List (M) - R.M.K.H. Ranasinghe (2010/CS/175)

Graduation

Graduation ceremony was held for 203 students from 4 degree programmes. Students for the ICT degree programme are selected from any A/L stream. In table 3 student performance by stream is also shown for these students.

A survey was carried out during the convocation which was held five months after completing the degree. Out of 217 of the 220 (98.6%) graduands who took part in the survey, 199 (91.7%) had already found employment, 6 (2.8%) underemployed and 10 (4.6%) unemployed. Percentage of females employed (87%) were slightly lower than the males (94%) and more Sinhalese (93%) students were employed than both Tamil (82%) and Muslim (80%). All the unemployed individuals expected a salary of Rs. 30,000 or more, while 8% of those employed earn less than Rs. 30,000. Majority employed (48%) were earning between Rs. 50,000 with some students earning over Rs. 100,000. Most were employed in the Private Sector (82%).

Table 3: Performance of UCSC Graduates

Intake	First	Upper	Lower	Pass	TOTAL
BSc	1	0	8	88	97
BICT	0	5	17	34	56
Mathematics	0	3	10	21	34
Biology	0	0	5	6	11
Commerce	0	1	1	4	06
Arts	0	1	1	3	05
BSc CS	12	17	10	0	39
BSc ICT	6	11	3	0	20
Mathematics	1	5	3	0	09
Biology	4	5	0	0	09
Commerce	0	1	0	0	01
Arts	1	0	0	0	01
TOTAL	19	33	38	122	212

Figure 1 shows that the UCSC graduands employability similar to Engineering and Medicine. Similar survey carried out for the external degree four months after the graduation showed that of the 172 graduates 81% were employed while only 6% was looking for employment.

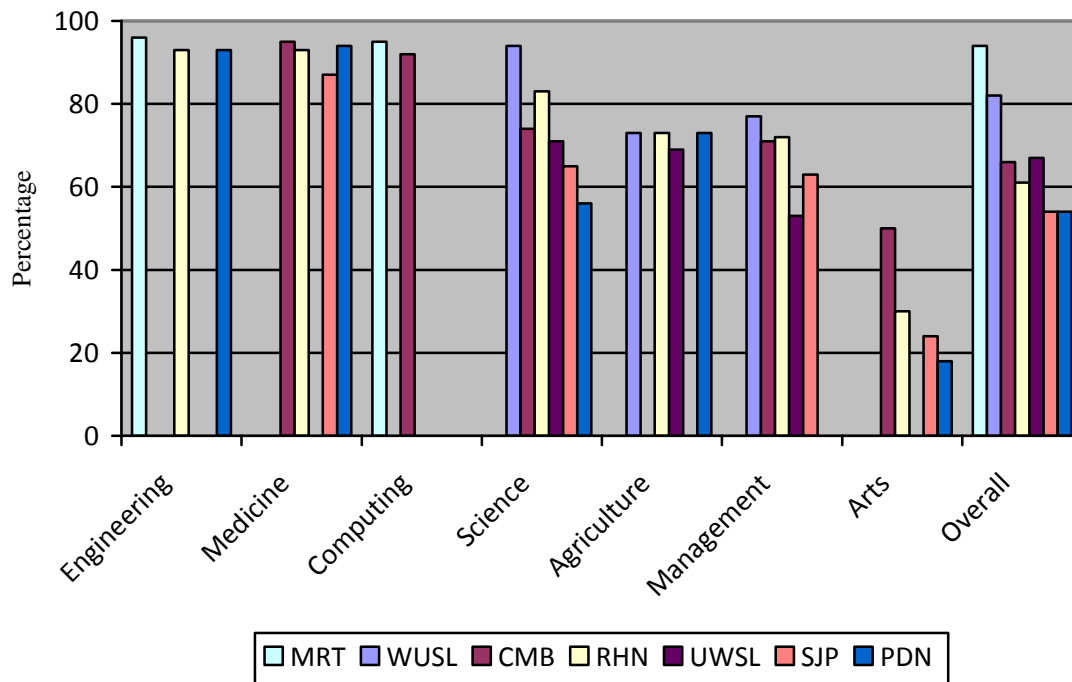


Figure 1: Employability of University Graduates

Awards

Prof. V.K. Samaranyake Medal for the most outstanding Graduate of the UCSC was awarded to L.N. Kumar. In the CS Degree Programme three awards, namely Prof. Mohan Munasinghe Award for Computer Studies, David Peiris Group Gold Medal for the Best Performance in Industrial Training and Virtusa Academic Excellence award for the Best Performance were awarded to L.N. Kumar, H.M.L. Dharmasiri and R.R.D.H. Wathsala respectively while CINTEC Award for the Best Computer Science Final Year Project was awarded to L.N. Kumar. In the ICT Programme S.P. Udalagama, M.D.N.T. Perera and R.I.M. Sabith were awarded the IFS Academic Excellence Award for the Best Performance, David Peiris Group Gold Medal for the Best Performance in Industrial Training and Motorola Academic Excellence Award for the Best Performance respectively. P.I.U. Amarasinghe, A.K. Madugalle, V.H. Padmathilaka and R.N. Rajapakse were awarded the Sampath Bank Award for the Best Final Year Project for the ICT Programme.

Attracting good students is our primary concern as it contributes towards the quality of the students we produce. Students enrolling for the undergraduate programme are selected centrally by the University Grant Commission (UGC). It is based on student preference. Currently most student's first choice is either Engineering or Medicine. Also most students were unaware of the UCSC degree programmes and career opportunities in the computing field. Thus UCSC continued to organize workshops over two days for potential new admissions which were well attended. So far those shown interest have not had the opportunity to enrol for the internal programme.

Postgraduate Education

Postgraduate programmes were first offered at Colombo in 1986 through postgraduate diploma programmes. During the year under review the UCSC continued to conduct three (03) Master's Courses. Computer Science Course is intended for those with a 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 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 December 2012 for the 2012/2013 intake. The recruitment of students for the 2013/14 was initiated during the year holding selection tests and interviews. Increased number was enrolled to commence the programme in early 2014.

A total of 30 internal staff and several Visiting Lecturers contributed to the programme. By the year ending December, 2013 the total population of Master's students was 303. 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.

UCSC now offers three master's degree programmes and research degrees have 353 students (Table 4). Master of Computer Science offered since 1990 had 128 students. Information Technology programme offered since 2000 had 123 students. Information Security programme had 52. New Bioinformatics programme offered with IBMBB have 13 students. 46 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 (05 Part-Time and 04 Full-Time) registered for the M.Phil Degree programme in 2013. One part-time and three full-time students registered for the PhD Programme in 2013.

Table 4: Postgraduate Degree Programmes

Course	Intake 2012	1st Year Students	2nd Year Students	3rd Year Students	4th Year Students	Total	No of Graduated
Master of Computer Science	68	68	60	-	-	128	51
Master of IT	66	66	57	-	-	123	56
MSc in Information Security	26	26	26	-	-	52	09
MSc in Computer Science	-	-	-	-	-	-	01
PGD in Computer Science	-	-	-	-	-	-	02
PGD in IT	-	-	-	-	-	-	03
Taught PGD	160	160	143	0	0	303	122
MPhil/PhD	09	09	08	09	13	39	06
Total	169	169	151	09	13	342	128

All courses are conducted in English Medium

Awards

Postgraduate convocation was held on 21st November 2013 at BMICH. Kingslake award for the best student for Master of Computer Science Degree Programme was given to Mr. M.D.S. Dinushka while JICA award for the best student for Master of Information Technology was awarded to Ms. G.A.D.P.S. Seneviratna. The University of Colombo Research Award (UCSC) - 2012 was awarded to Prof. G.N. Wikramanayake, Director of the UCSC.

External Degree & Extension Courses

External degree programme commenced had 5,722 enrolled while 309 followed the extension programmes. In addition the UCTIT programme 13,814 sat the exams. FIT programme had 930 registered students and 1127 sat the examinations during the year. E-Learning centre provided online language service (Tamil) for Sampath Bank and also provide blended learning environment support for the sport ministry training centre.

BIT programme alone has attracted 29,179 since its inception and has produced 1,436 graduates; 2,788 higher diploma holders and 6,003 diploma holders. In 2012/13 had 2034 new enrolments and produced the highest graduate output (Table 5). Access to computing resources through NODES centres of the Ministry for a very nominal fee was continued during the year. Recruitment process for 2013/14 also commenced during the year with over 2000 enrolled before the end of the year.

Table 5: External Degree Programme 2012/13

Course	Intake	1st Year Students	2nd Year Students	3rd Year Students	Total	No of Graduated
Diploma in Information Technology	2034	2816	1045	314	4175	611
Higher Diploma in IT	714	1045	501	845	2391	305
Bachelor of Information Technology	312	314	531	571	1416	194
All		2811	1545	1416	5722	

Table 6 highlights the performances of the BIT students over 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 30th May. hSenid organized a briefing session for BIT 1st years to introduce their apprenticeship programme on 30th May. BIT examinations were held in Colombo, Kandy, Galle and Jaffna.

Table 6: External Degree Performance over last Three Years

External Undergraduates	KPI	2010/11	2011/12	2012/13
DIT - New Intake	2000	2514	2365	2034
DIT – Registered	4000	4281	4287	4175
DIT - Diplomas	600	576	654	611
HDIT - Higher Diploma Intake	600	549	648	714
HDIT - Higher Diploma Registered	2000	1863	2019	2391
HDIT - Higher Diplomas	300	308	262	305
BIT - Degree Intake	300	228	279	312
BIT - Degree Registered	1200	1188	1293	1416
BIT - Graduates	150	129	172	194

Graduation

Performance of those participated at the 2012 convocation held on 5th April 2013 is shown in Table 7. Record number of 172 graduates were conferred the degree at this Convocation. 94% responded to the employment survey held three months after their project examinations. 131 (81%) were already employed, 10 (6%) of them were looking for better employment, 11 (7%) were continuing their studies and others didn't give any reason for not being employed. The employment percentages over the previous two years were 87% and 86% respectively. However with the release of results of the next batch a record number of

194 qualified for the BIT degree.

Table 7: Those Graduated at the Convocation held in 2013

Intake	First	Upper	Lower	Pass	TOTAL
BIT	5	2	15	150	172

Awards

Prof. VK Samaranayake Medal for the Best Performance at the Bachelor of Information Technology (External) Degree was awarded to Ms. B.A. Ratnayake. She was also awarded the best individual project award. New award was introduced for Mr. M.J.P.U. Samanthilake Memorial Award. This was awarded to Ms. T.A. Fernando. Best e-Learner awards for the 4 semesters were awarded to Ms. M.P. Wimalasooriya (I & II), Mr. R.M.S.S. Bandara (III) & IV not awarded.

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 publish 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 the candidates study on their own with the help of the VLE and online/recommended material. In 2012/13, 36 institutions from 11 districts conducted training for five or more candidates. Among them 11 institutions were involved in all three years (marked * in the Table 8).

Table 8: Institutes involved in the BIT Programme

District	Institute
Bandarawela	(1) Esoft Computer Studies
Batticaloa	(1) Esoft Computer Studies (2) Edventure Institute of IT
Colombo	(1) *Earth International (2) *Esoft Computer Studies (3) *Foundation of IT Professionals (4) *IDM Computer Studies (5) *Matrix Institute of IT (6) *Openarc School of Business and Technology (7) *WideAwake Solutions (8) Aurora Computer Studies (9) e-Academy Computer Centre (10) EASL J Lanka (11) Sharp Vision IT Center (12) Technoura College of Education
Galle	(1) Esoft Computer Studies (2) IDM Computer Studies
Gampaha	(1) *Earth International (2) Esoft Computer Studies, Gampaha (3) Esoft Computer Studies, Negombo (4) Esoft Computer Studies, Kelaniya
Jaffna	(1) BIT Corner (2) Esoft Computer Studies

	(3) MIS (4) Mobile@Net Computer Services
Kandy	(1) *Esoft Computer Studies (2) Matrix Institute of IT (3) National Institute of Co-operative Development
Kegalle	(1) Institute of Computer Studies (2) Solarize Computer Studies
Kurunegala	(1) *Esoft Computer Studies (2) Institute of Business Studies
Matara	(1) *Esoft Computer Studies (2) Dbase School of Computing (3) IDM Computer Studies
Ratnapura	(1) Esoft Computer Studies

UCSC offered eight extension certificate courses, but attracted only 300 students showing a drop in demand for such courses. Table 9 identifies the details of the CSC courses (programmes) conducted by the UCSC.

Table 9: CSC Training Programmes

Course	B	P
Java Application Development using JavaSE	2	35
Advanced Java Application Development using JavaEE	2	51
Unix/Linux Network & System Administration	2	78
Advanced Multimedia Web Design & Development Techniques	2	28
Dynamic Web Application Development with PHP & MySQL	2	25
Computer Aided Drafting Using AutoCAD 2010	1	36
Embedded Systems Design & Development using Microcontroller Programming (including Robotics)	2	20
Computational Biology	1	36
TOTAL	14	309

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. This year we had the first foreign student from Bhutan for the Master of Information Technology 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	-	-	-	-

New Courses Started

Due to the curriculum revision and change of degree programme the BICT programme was renamed to BIS. However it cannot be considered as a new course as an equivalent one was there before. However the new BSc in CS intake will have the opportunity to opt for new Software Engineering Degree during their 3rd year

in 2015. 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.

Table 11: New Courses

Course	Medium	Certificate	Diploma	Postgraduate Diploma	Master	M.Phil	Ph.D
Software Engineering	English	-	-	-	-	-	-
ICIT	English	-	-	-	-	-	-

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. 13 new students registered during the year and one evaluation was held. Currently 52 students are working on 22 disciplines under 16 senior academics of the UCSC and 10 external researchers. 14 research projects leading to MPhil/PhD have been completed so far. 13 MPhil/PhD students had publications during the year.

Prof. Ginige from University of Western Sydney visited UCSC to spend 3 weeks in Oct/Nov on the Social Life Network research Project. He also visited UCSC in Jan 2013 regarding the same project.

Table 12: Staff Research Areas

Research Area	FT	PT	Total	New	Complete
Artificial Intelligence	0	1	1	2	0
Bioinformatics	0	0	0	0	1
Computer Graphics	4	2	6	1	1
Data Mining	1	0	1	0	0
Digital Forensic	1	0	1	0	0
e-Business	0	1	1	0	0
e-Health	0	1	1	0	0
e-Learning	3	2	5	2	3
Game-based Learning	0	1	1	0	0
Geographical IS	1	1	2	0	1
Green IT	1	0	1	0	0
High Performance	0	0	0	0	1
Heuristics Optimization	0	1	1	0	0
Human Computer Interaction	1	0	1	0	0
Image Processing	1	2	3	1	2
Information Systems	1	0	1	1	0
Intelligent Systems	0	1	1	0	0
Knowledge Engineering	1	0	1	1	0
Machine Learning	1	2	3	0	2
Natural Language Processing	2	1	3	0	2
Sensor Networks	1	3	4	0	0
Software Engineering	0	1	1	1	1
TOTAL	19	20	39	9	14

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 43 million. Senior staff could annually utilise up to 350,000 rupees to participate at research meetings and publish research in international conferences and journals. This increased annual UCSC publications from 30s to 60s. Among the years publications 58 were conference papers held in 18 countries. 25 (71%) academic staff published research papers. Table 13 gives the details of the publications.

Table 13: Research Summary

Subject	Published	Commercialized	Presented
No of Researches	113	-	58
No of Innovations	-	-	-
No of Journals	8	-	-
No of Books	-	-	-
No of Articles	58	-	-
Other	-	-	-
Total	66	-	66

Conferences, Seminars & Workshops

Setting up mechanisms for identifying & carrying out relevant research is another strategy of the UCSC. Organising the annual UCSC Research Symposium for Final Year undergraduates was postponed to the following year as the academic year was not completed by end of the year. However staff symposium was organized on 29th January 2013. UCSC continued to publish two issues of the ICTer Journal. Organize International IT Conference for Emerging Regions was held successfully from 11-14 December 2013 which included pre and post conference workshops. UCSC also revised mechanism for utilizing Research Fund by all academics to encourage further involvement in research. UCSC also hosted the IEEE Student, GOLD, WIE congress on 1st Dec 2013.

UCSC successfully held the annual Prof. V.K. Samaranayake oration on 10th June 2013 at the UCSC. Vidya Jothi Prof. Eric Karunanayake, Emeritus Professor of Bio Chemistry & Chairman, National Research Council, delivered his oration on "Hurdles and Successes in Academic Life". Prof. Abhaya Induruwa was selected as the first endowment chair under the Prof. V.K. Samaranayake endowment fund. He will commence his first visit in July 2014. Details of the conferences, seminars and workshops are given in table 14.

Table 14: Conferences, Seminars and Workshops

Subject	Participated	Published	Presented
Senior Academics local conferences	20	3	0
Senior Academics International conferences	19	55	20
Organized International Conference (ICTer)	222	55	48
ICTer Journal	5	5	-
Total	266	118	68

Awards Received

UCSC continued to encourage students participate in national and international competitions. Details of winners of those were listed under student achievements. UCSC also encourage staff research products too to compete locally and internationally. SIYARA - Harbour VTMS (New dimension in Port Traffic management) which won under the Research & Development Category went on to win the overall Gold at

the National Best Quality ICT Awards (NBQSA) beating 46 IT products that took part under the commercial category. This product was developed by the simulation research group lead by Prof. Kodikara. Content Based Audio Music Monitoring Approach for Sinhala Songs another staff project won a Merit under the Research & Development Category at the same event. Beside some staff got grants to carry out their research. Details of the awards received are given in table 15.

Table 15: Awards Received

Subject	No of Awards	No of Academics	No of Students
Local Awards	1	1	-
National Awards	20	9	53
International Awards	1	1	-
Other	-	-	-
Total	22	11	53

Academic Staff

Three academics went on sabbatical. During the year recruitment of Lecturers (Probationary) and Senior Lecturers was done with approval for their appointments still pending. However UCSC failed to attract required personnel to fill the available positions. Only 36 of the 82 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 to deliver some of their programmes.

In order to attract international human resources short term visiting researchers from Australia, Sweden, UK and USA was hosted during the year. UCSC also continued the staff exchange programme under Linnaeus Palme Project with Umea University, Sweden and UCSC staff member successfully conducted a course in Umea.

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	-	02	19	13	-	02
Computing (C)	English	-	-	-	-	07	08

*04 on leave

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

Efforts were put into the development and implementation of management and strategic information system. Outcome was not encouraging due to less involvement by the potential users. Implementation work of the ongoing Examination Processing System was held up as the programmer-cum systems analyst post became vacant. Online payment facility for external and extension programmes and postgraduate programmes was introduced. 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 UCSC only 40 permanent position have been fill and the most of the work is carry out by

contract and assignment staff. However 3 carder positions for general administration was increased during the year.

Table 17: Non-Academic Staff

Type	Most Senior(Admin)	Senior Staff	Junior Staff	Minor Employees	Project Staff
P	7	2	24	7	-
C	1	3	13	12	20
A	-	2	6	4	11

Staff Training and Overseas Leave

Training leave: Two academic staff participated at training programmes held overseas.

Mr. BMAV Mapa (India) & Mr. SCMB Attanayake (Bangladesh)

Fifteen academic staff participated at conference overseas involving 22 visits.

Mr. MGNAS Fernando (Thailand twice & Indonesia), Dr. GDSP Wimalaratne (Thailand), Dr. KP Hewagamage (Portugal, Barcelona and Sweden), Dr. KL Jayaratne (Singapore), Dr. HA Caldera (South Korea), Prof. GN Wikramanayake (Iceland & Hong Kong), Dr. AR Weerasinghe (Portugal & Sweden), Dr. (Mrs) MDJS Gunathilaka (Vietnam & India), Dr. (Mrs) AT Dharmarathna (Indonesia), Prof. ND Kodikara (Singapore), Dr. TNK De Zoysa (India), Mr. MDNR Dayarathna (Italy), Ms. TA Weerasinghe (China), Dr. DN Ranasinghe (India) and Dr. DAS Athukorala (Singapore)

Three academics went of sabbatical leave.

Dr. CI Keppetiyagama (Sweden), Dr. MC Jayewardena (Australia) and Dr. HL Premaratne (Australia).

Two academics went on study leave of which one assumed duties subsequently. Four academics continued to be on study leave.

Continued: Mr. HM Siriwardana (Japan), Ms. LNC De Silva (Sri Lanka), Ms. FHAM Premachandra (Australia), Mr. MIE Wickramasinghe (Malaysia)

Other: 57 staff members joined the overseas welfare trip in Thailand. Four staff members went on 06 personnel visits.

Mr. SSP Mathara Arachchi (Malaysia), Mr. KS Goonathillake (Thailand twice & India), Mr. MDRN Dayarathna (Sweden), Dr. KL Jayarathna (Australia)

Staff Welfare

Insurance Scheme

An Insurance Scheme was introduced for the benefit of UCSC employees in the year 2013. This scheme with many facilities was offered by the Union Assurance and around 51 employees had subscribed to this Insurance Scheme.

Annual Trip

The staff of the UCSC were given opportunity to join a foreign trip to Thailand or to join to a local trip to Giritale, by the Welfare Society of UCSC in 2013. In addition, a year-end get together along with a sport day was organized on 22nd December by the UCSC Welfare Society.

Dr H.A. Caldera won the Men Single at the All Island Inter University staff Table Tennis Championship 2012 held on 15th February 2013.

FINANCE

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 undergraduate student is 152,000. UCSC contributed 43 million for the internal undergraduate programme which was 32% of its undergraduate recurrent expenditure. Despite increase in personal emoluments the government allocation was lower than the previous year. Breakdown of recurrent expenditure is given in table 18.

Table 18: Recurrent Expenditure Rs. 000'

Subject	2012	2013
Personal emoluments	92,840	108,057
Travelling	528	1,560
Supplies	4,579	6,087
Maintenance	3,057	3,445
Contractual Services	29,701	35,165
Other	57,357	67,574
Total	188,062	221,888
Government Allocation	91,802	90,383

Capital Expenditure

UCSC invested in physical resources to improve its computing facilities. Several computer laboratories was replaced with state of the art equipment. Cambio donated a computer lab worth Rs. 5 million. 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.

Table 19: Capital Expenditure Rs. 000'

Subject	2012	2013
Acquisition of furniture & Office Equipments	14,604	13,954
Acquisition of Machineries	-	-
Acquisition of Building & Structures	22,327	43,412
Other	4,076	17,449
Total	41,007	74,815
Government Allocation	19,150	25,759

Projects (Local/Foreign Funded)

UCSC has a strong research group in several disciplines. Modelling & Simulation, e-Learning and Language Technology 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. Birth Marriage certificates are now issued over the counter using UCSC software. Sinhala language is

supported in modern computers due to the efforts of UCSC through the design and development of Sinhala Unicode.

Implementation of a university student selection and allocation system for the UGC was one of the major development activities carried out by the UCSC. This will significantly reduce the time taken for university admissions as well as the accuracy of the process adopted. Through the e-learning centre several e-testing based recruitment test were conducted for UGC and other universities. UCSC also continued to carrying out Digital Forensic activities to assist court cases.

While maintaining strategic partnerships with key stakeholders the UCSC continued implementation of e-Government projects in the country and commenced new projects with HETC and Government Ministries. Theekshana, a UCSC owned company which started with zero balance has now around Rs. 9 million reserves. Details of the UCSC projects carried out and their expenditure are listed tables 20 and 21.

Theekshana

Despite decline in revenue due to lack of new foreign funded projects, local community interest on Theekshana grew significantly. Previous year, although we saw a significant growth in membership and their involvement in Theekshana project, the two months university academic strike during the first part of the financial year contributed towards loss of business opportunities. Change of academic calendar and backlog clearance with additional intake restricted availability to our human resources. Beside some of the Theekshana's successful projects were taken over by others. Evaluation of IT skills of all university undergraduates which was previously done through Theekshana was awarded to individuals of the University of Colombo School of Computing (UCSC) by the client. Even the Theekshana's solution for the Chartered Accountants to automate their examinations is now carried out through the e-Learning Centre of the UCSC.

However, Theekshana has few success stories to report. Successful implementation of the Automated Finger Print Identification System for Sri Lanka Police and several new projects award by the ICTA are proof of the quality and reliability of the services of Theekshana. Several local languages related projects were among these new ICTA projects. During the year several National Research Council research grants were channelled through Theekshana. The Birth, Marriage and Death Certificate Issuance System set up at Divisional Secretariats around the country was maintained successfully by Theekshana. Successful implementation of the e-Learning solution for the Royal University of Bhutan resulted in carrying out a short training programme in Bhutan for their staff.

Exhibitions

UCSC participated at the CHOGM trade exhibition held in Colombo from 13-17 November. UCSC also participated at the Infotel exhibition was held from 24-27 October promoting ICIT programme and some student projects. Prof. Gihan Wikramanayake was selected as the brand ambassador for Education for this event.

Table 20: Recurrent Expenditure

Rs. 000'

Name & Detail	Grant	Funding Agency	TCE	RFA	DF
M-ATM (2008-11)	7,596	Royal Inst. of Tech.(KTH), Sweden			
Tele centre.Org (2010-11)	2,856	Telecentre Foundation, Philippines			
Foreign Funds	10,452				
FASS (2011-2012)	1,308	Ministry of Defence, Sri Lanka			
Copsayura (2011-13)	1,934	National Science Foundation			
Food Security -2012	2,808	National Science Foundation			
Local Funds	6,050				

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

Project Expenditure (Local/Foreign Funded)

Table 21: Project Expenditure

Rs. 000'

Name	TCE B/F Accu. Cost	Exp in 2012	Exp in 2013	Cumulative Exp as at 31.12.2013	% of Physical Progress
M-ATM	5,665	697	917	7,279	84%
Tele centre.Org	2,390	168	168	2,726	100%
Foreign Project Exp	8,055	865	1,085	10,005	
FASS	40	970	458	1,468	77%
NSF	-	1,709	608	2,317	88%
Food Security -2012	-	-	1,704	1,704	25%
Local Project Exp	40	2,679	2,770	5,489	

Financial Progress (Expenditure)

Table 22: Financial Progress (Expenditure)

Rs. 000'

Subject	Provision	Exp	Savings/Excess
Recurrent except Project	239,426	221,888	17,538
Capital except Project	57,250	74,815	(17,565)
Project - Local funded	2,770	2,770	-
Project – Foreign funded	1,085	1,085	-
Total	300,531	300,558	(27)

Financial Progress (Generated Income)

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

Source of Revenue	Provision	Collection	Deficit / Surplus
Undergraduate Studies	91,910	93,994	2,084
Postgraduate Studies	45,700	51,963	6,263
Consultancies	14,000	11,193	(2,807)
External Degree	68,394	78,708	10,314
Other	68,143	74,357	6,214
Total	288,147	310,215	22,068

Excluding the Undergraduate income UCSC earned 242,025. Generated income of the UCSC was much higher than most universities and higher education institutes, including its main university (Figure 2).

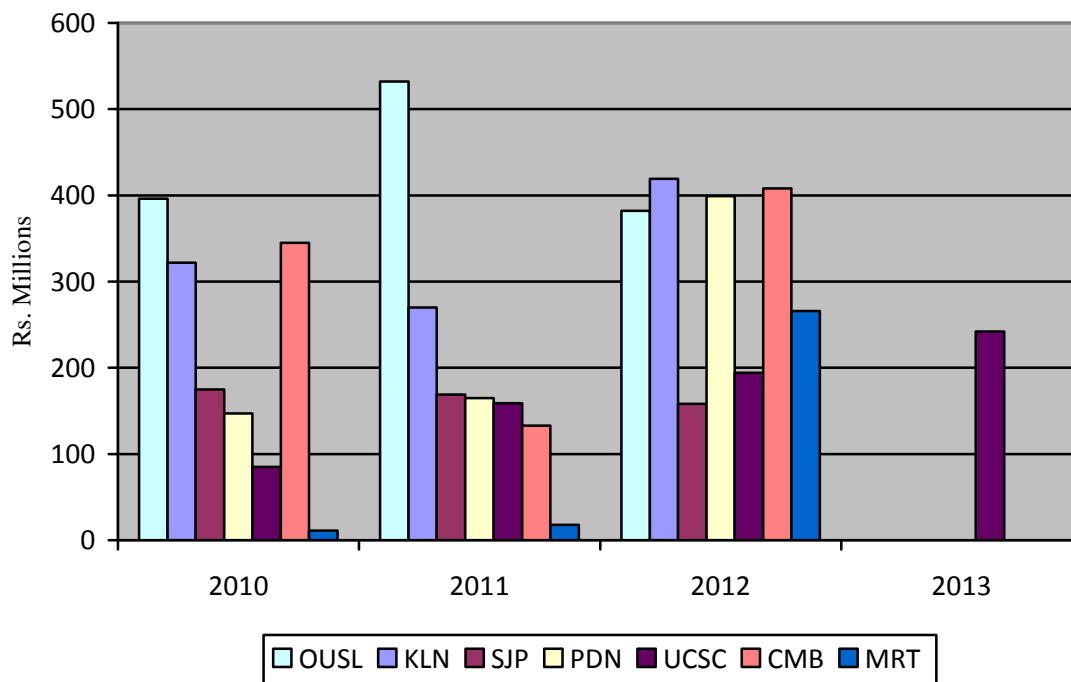


Figure 2: Generated Income

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	152
Capital Expenditure per Student (CE)	CE / No of Student strength	81
Total		233

Infrastructure Facilities Received in 2013

UCSC operate with limited space with inadequate space to conduct lectures. Students do not have adequate space in the canteen, common and study rooms. As the university was unable to provide land UCSC commenced Build West wing and fourth floor extensions to meet shortage in undergraduate classrooms and to accommodate fulltime research students. This project commenced in 2011 was completed and handed over on 14th June 2013 after several months construction delay.

While meeting the short term infrastructure needs expansion plans were designed to meet medium and long term goals. Construction of a canteen and administrative building at the current canteen location was identified along with replacing the existing auditorium with lecture halls/study rooms cum auditorium were among the medium term goals. Requirement to set up buildings outside the University of Colombo was also identified as long term goals. Canteen part of the Canteen & Admin Building was identify as phase I and work commenced in 2013 with the laying of the foundation on 31st October. This work is expected to be completed by September 2014. By the end of the year construction up to the foundation was completed. Details of the building work are given in table 25.

Table 25: Infrastructure

Rs. 000'

Infrastructure Details	Expenditure (Rs)	Physical Progress
UCSC Building Extension	60,628	100%

Canteen & Admin Building Block Phase I	20,533	30%
---	--------	-----

Any Other Details / Performance Relevant to this Report

To enhance visibility locally and internationally monthly print media coverage of UCSC activities was maintained along with redesigning of the UCSC web site to improve presence.

UCSC considers taking IT education and products to the periphery is one of their social responsibilities. During the year UCSC partnered with Rupavahini Corporation to introduce educational programme for A/L students. UCSC also 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). Three member IOI team along with leader and deputy was selected to participate at the IOI'13 to be held from 6-13 July in Australia was supported by the UCSC. Team also competed at the Asia Pacific Informatics Olympiad (APIO) competition held on 11th May.

A group of 24 students and 2 teachers from Republic Polytechnic, Singapore visited UCSC on 1st June. In January Prof. Jiangning (Johnny) Zhao of Catholic University of Korea visited to explore postgraduate opportunities for our students. J J Kim, vice president of MarkAny, Korea visited in January to explore collaborative e-Learning project for schools in line with one laptop per child concept. Dr. Geoff Gregson from University of Edinburgh spoke on Intellectual property to students and staff on 19th Feb'13. Meeting was held with the President on 1st March at the UGC to discuss brief development plans of the MoHE and to review progress. World Bank team visited UoC for a mid-project review which included two of the UCSC projects, namely BIT and Commercialization on 28th May. Cambio Research Lab a donation of a 40 computer lab for our final year undergraduate students was opened on 25th March with the participation of the BOM, Secretary MoHE and Chairperson UGC.