

STUDENT HANDBOOK

ACADEMIC YEAR 2019/2020



Faculty of Computing and Technology
University of Kelaniya
Sri Lanka

Leading Innovation Through Collaboration

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Faculty of Computing and Technology

University of Kelaniya established its 7th Faculty - the Faculty of Computing and Technology (FCT) - on the 30th December 2015 and commenced its operations on the 18th January 2016. The vision of the faculty is to become a centre of excellence in creation and dissemination of knowledge in the domains of Computing and Technology for sustainable development of Sri Lanka.

At present, FCT offers three, four - year degree programmes, namely, Bachelor of Information and Communication Technology Honours [BICT (Hons)], Bachelor of Engineering Technology Honours [BET (Hons)] and Bachelor of Science Honours in Computer Science [BSc Hons (CS)].

The BICT Honours degree programme provides students with a strong fundamental knowledge in the Computing domain as well as necessary skills and knowledge required to design, build and maintain industry standard software and computer networks through hands-on laboratory sessions. BICT Honours degree will help students to acquire knowledge, develop skills and attitudes to function as software developers, network administrators and ICT professionals in the future.

The BET Honours degree programme has a strong focus on practical applications of Science and Technology with the view of preparing highly employable graduates for a wide variety of industrial applications expected by the ever growing industry in Sri Lanka. Currently, the BET Honours degree programme provides graduates with skills in the fields of Materials and Process Technology, Robotics and Industrial Automation and Sustainable Technologies.

The Bachelor of Science Honours in Computer Science degree programme provides students with solid knowledge on theoretical concepts in the domain of Computer Science. This degree programme also provide the necessary skills and knowledge required to design and implement complex software and hardware systems through supporting hands-on laboratory sessions. This programme has a strong focus on practical applications of Computer Science with the view of preparing highly employable graduates for a wide variety of industrial applications expected by the ever growing high-end IT industry in Sri Lanka. This degree programme is aligned with the recommendations of the Standing Committee on Computing of the University Grants Commission (UGC), and the guidelines stipulated by the Association for Computing Machinery (ACM) and the Institute of Electrical and Electronic Engineers (IEEE).

The new faculty was established also to cater to unique computing needs of other faculties of the university while offering its own academic programmes in Computing and Technology. Through the collaborative model practiced by the new faculty, the graduates of University of Kelaniya can excel in their studies in diverse areas of their own interest with the aid of new technologies of Computing and Technology provided through the degree programmes offered by the FCT.

FCT will also offer Postgraduate Degree Programmes in the areas of Computer Science, Software Engineering, Information Technology and Engineering Technology leading to Master of Science (M.Sc), Master of Philosophy (M.Phil) and Doctor of Philosophy (Ph.D) degrees. The Master of Science in Information Technology in Education degree programme has been developed for the Ministry of Education to train ICT teachers for the national education system and programme commenced in January 2021.

FCT conducts research in diverse fields of significant importance. Research at the FCT will expand from fundamental Computer Science research to the development of new technologies with applications to the industry and society as a whole.

The Faculty established National e-Learning Resource Centre (NELRC) as its first Research and Development Centre where academics from faculties of Commerce & Management Studies, Humanities, Social Sciences and FCT to share their expertise in the field of e-learning and planning. The following Research and Development (R & D) Centres will be established in near future:

- Centre for Nanotechnology
- Language Engineering Research Centre
- Centre for Geo-informatics
- Centre for Computational Mathematics
- Centre for Data Science
- Centre for Cyber Security and Digital Forensics

FCT has an Industry Interaction Cell for Computing and Technology (IICfCT) which will function as its commercial arm to provide services related to Computing and Technology issues of the entire country with the following objectives:

1. To encourage computing and technology experts in the university to contribute their knowledge/ experience for the development of national economy.
2. To develop computer based systems necessary for the government sector and SMEs at an affordable cost.
3. To provide training opportunities for the students with real world environments.
4. To encourage external experts to collaborate with FCT for Research & Development activities.

Initially, the Faculty of Computing and Technology was established with three Departments: Department of Applied Computing, Department of Computer Systems Engineering and Department of Software Engineering that encompass all the subject areas of the Computing and Technology domains. In addition to the above academic departments: Department of Human Centered Computing, Department of Data Science and Engineering, Department of Computational Mathematics and Intelligent Systems, Department of Network and Security Engineering and a few other technology related departments will be established in the near future to serve the needs of the country.

The Faculty of Computing and Technology is the first Faculty in Sri Lanka that has adopted the Learning-Centered education pedagogy for its programme design and delivery. This new approach will empower student learning both inside and outside the class enabling active learning. Students will develop life-long learning skills and attitudes that are required by the industry thus transforming them to highly marketable graduates.

The Faculty of Computing and Technology warmly welcomes the fourth batch of Computer Science students and the fifth batch of students from the Technology stream who qualified to enter the faculty, and wishes them success in their academic and other endeavours, with the hope that they will make their contribution to the society as proud graduates of the Faculty of Computing and Technology of the University of Kelaniya.

Vision

To become a centre of excellence in creation and dissemination of knowledge in Computing and Technology for sustainable development.

Mission

The Faculty of Computing and Technology strives for excellence in Computing and Technology through innovation and dissemination of knowledge and capacity building for socio-economic development of the nation.



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Degree Programmes at Faculty of Computing and Technology

Bachelor of Information and Communication Technology Honours [BICT(Hons)] Degree

The Bachelor of Information and Communication Technology Honours Degree is a four-year degree programme. The student intake is 75. This degree programme will enable students to build necessary skills, knowledge and attitudes required to function as software developers, network administrators and ICT professionals. Strong fundamental knowledge in electronics and data communication complemented with hands-on laboratory sessions will provide the necessary skills and knowledge required to design, build and maintain industry standard software and computer networks. The pathways currently on offer are:

- Computer Networks
- Games and Animation
- Software Systems Technology

Students will get an opportunity to work in the industry for six months through the internship module in the 4th year. The medium of instructions and examinations is English.

Accreditation for this degree programme will be sought from the Computer Society of Sri Lanka (CSSL).

Bachelor of Engineering Technology Honours [BET(Hons)] Degree

The Bachelor of Engineering Technology Honours Degree is a four-year degree programme. The student intake for this degree programme is 86. This Engineering Technology degree programme has a strong focus on practical applications of science and technology with the view of preparing the graduates for a wide variety of industry applications. The first two years of the curriculum aims at developing the common competencies expected of an engineering technologist while the final two years are devoted for developing specific competencies in chosen areas of specialization.

The pathways currently on offer are:

- Materials and Process Technology
- Industrial Automation and Robotics
- Sustainable Technology

Students will get an opportunity to work in the industry for six months through the internship module in the 4th year. The medium of instructions and examinations is English.

Accreditation for this degree programme will be sought from the Institution of Engineers Sri Lanka (IESL).

Bachelor of Science Honours in Computer Science [BSc Hons(CS)] Degree

This is a four-year degree programme leading to the Bachelor of Science Honours in Computer Science offered by the University of Kelaniya. The intake for this degree programme is 50. The course structure of the B.Sc. Honours in Computer Science Degree is designed to align with the recommendations of the Standing Committee on Computing of the UGC, and the guidelines of the Association for Computing Machinery (ACM) and the Institute of Electrical and Electronics Engineers (IEEE).

This degree programme will help students to build necessary skills, knowledge and attitudes required to function in the software industry, conduct research and disseminate knowledge in Computer Science. Deep fundamental knowledge in theoretical Computer Science with supporting hands-on laboratory sessions will provide the necessary skills and tacit knowledge required to analyse, design, implement and maintain industry standard software. Knowledge on Database Systems, Machine Learning, Data Security, Theory of Compilers, Parallel Computing, High Performance Computing, Data Science, Natural Language Processing, Digital Forensics, Semantic Web and e-business technologies, Computer Games and Animation, Image Processing, Virtual Reality to the curriculum provides ample flexibility for students to specialize in their own areas of interest.

Students can choose the standard pathway in computer science or a pathway to give more emphases on one of the following areas :

- Data Science
- Artificial Intelligence
- Cyber Security
- Scientific Computing

Students will get an opportunity to work in the industry for six months through internship module in the 4th year. The medium of instructions and examinations is strictly in English. In the final year all students should carry out a research project relevant to their area of interest.

Accreditation for this degree programme will be sought from the Computer Society of Sri Lanka (CSSL).

Key to understand the Structure of Degree Programmes offered by FCT

Introduction to Organization of the Degree Programmes

Academic programmes of the Faculty of Computing and Technology are organized as a collection of compulsory and optional course modules to be completed within a two-semester academic year with end of semester examinations. It offers a variety of course module combinations that are designed to provide maximum possible flexibility in the choice of course module.

The duration of a semester is 15 weeks. After 15 weeks of teaching, a study leave period of 2 weeks is given followed by end of course written examinations that are conducted within a period of 3 to 4 weeks. Examinations of laboratory course units are usually conducted either during the last week of the semester or during the study leave period.

A course unit is a subject module which has a credit value. A credit is a time based quantitative measure used in calculating the Grade Point Average (GPA). The course modules are organized at four levels namely level 1, level 2, level 3 and level 4. Credit rating of a course unit is defined as follows:

For course units with lectures only

15 contact hours = 1 credit

For course units with laboratory work only

30-45 hours laboratory work = 1 credit

60-75 hours laboratory work = 2 credits

For course units with both lectures and laboratory work

10 contact hours + 15 hours of laboratory work = 1 credit

NOTATIONS OF COURSE UNITS AND ABBREVIATIONS USED

There are two types of course units, namely Compulsory (C) and Optional (O).

All compulsory course units of a degree programme are the course modules that are compulsory to follow by a student in that discipline.

The optional course units of a degree programme are the course modules that can be selected by a student based on his/her wish.

It is important to note that, there are some course units with a credit value that are compulsory to follow but are not considered in calculating the GPA (Non-GPA Course Units).

An alpha numeric code is used to identify a unit. The code consists of five digits prefixed by a set of four letters which refers to the principal discipline of the course content of the unit.

The first digit denotes the level (year) of the course unit whereas the fifth digit signifies its credit value. The second digit indicates the semester in which the course unit is offered (1 - first semester, 2 - second semester, 3 - both first & second semesters, 4 - either the first or the second semester) the third and fourth digits together form a number assigned by the Department or the Faculty.

The academic disciplines designated by the 4 letters in the code are as follows:

CTEC - Computer Technology	CTNT - Computer Network Technology
ETEC - Engineering Technology	SWST - Software Systems Technology
GTEC - General Technology	GANI - Games and Animation
GCPR - Generic Competencies for Professionals	CSCI - Computer Science
LNPR - Languages for Professionals	CSEC - Cyber Security
DELT - English for Professionals	DSCI - Data Science
ENPR - Entrepreneurship for Professionals	AINT - Artificial Intelligence
ETMP - Engineering Technology for Material and Process Engineering	SCOM - Scientific Computing
ETIA - Engineering Technology for Industrial Automation and Robotics	MGMT - Management
ETST - Engineering Technology for Sustainable Technology	

How to Select Course Units

Each year a student has to follow a combination of compulsory and optional course units aggregating to a minimum of 30 credits in addition to the non-GPA course units. At the end of the 4 year degree programme, a student must accumulate a minimum of 120 credits to claim for a degree.

Course Structure for the BICT Honours Degree Programme

Credit Distribution of the Course Structure - BICT Honours Degree Programme.

Level	Credits for Compulsory Courses	Credits for Optional Courses	Minimum Required Credits	
Level 1	30	03	30	
Level 2	30	04	30	
Level 3	Pathway 1	30	00	30
	Pathway 2	30	00	30
	Pathway 3	30	00	30
Level 4	Pathway 1	30	00	30
	Pathway 2	30	00	30
	Pathway 3	30	00	30

Pathway 1 – Computer Network

Pathway 2 – Games and Animation

Pathway 3 – Software Systems

Course Structure for the BICT Honours Degree Programme

Common Course Units offered for the Bachelor of Information and Communication Technology Honours Degree Programme

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 1 Semester 1	GTEC 11013	Mathematics for Technology – I	C	3	GCE (A/L)	
	GTEC 11023	Physics for Technology I	C	3	GCE (A/L)	
	GTEC 13032	Projects in Technology I	C	2	GCE (A/L)	
	GTEC 11041	Engineering Drawing with CAD I	C	1	GCE (A/L)	
	GTEC 11071	Physics for Technology Laboratory I	O	1	GCE (A/L)	
	CTEC 11052	Structured Programming I	C	2	GCE (A/L)	
	CTEC 11063	Computer Systems Organization	C	3	GCE (A/L)	
	DELT 13522*	English for Computing & Technology	C	2	GCE (A/L)	
	Semester 2	GTEC 12013	Mathematics for Technology – II	C	3	GTEC 11013
		GTEC 12023	Physics for Technology II	C	3	GTEC 11023
		GTEC 12033	Fundamental Practices in Technology	C	3	GCE (A/L)
		GTEC 12041	Engineering Drawing with CAD II	O	1	GTEC 11041
		GTEC 12062	Statistics for Technology	C	2	GTEC 11013
		GTEC 12081	Physics for Technology Laboratory II	O	1	GTEC 11071
CTEC 12052		Data Communication and Networking	C	2	GCE (A/L)	
Year 2 Semester 1	CTEC 12073	Structured Programming II	C	3	CTEC 11052	
	GTEC 21023	Fundamentals of Electronics	C	3	GTEC 12023	
	GTEC 23032	Projects in Technology II	C	2	GTEC 13032	
	GTEC 21043	Mathematics for Technology III	C	3	GTEC 12013	
	CTEC 21042	Web Programming I	C	2	CTEC 12052, CTEC 12073	
	CTEC 21052	Introduction to Cyber Security	C	2	CTEC 12052	
	CTEC 21063	Database Systems	C	3	CTEC 12073	
	LNPR 21072*	Japanese Language – I	O	2	GCE (A/L)	
	DELT 21512*	English for the World	C	2	DELT 13522	
	Semester 2	GTEC 22033	Mathematics for Technology – IV	C	3	GTEC 21043
		CTEC 22023	Data Structures & Algorithms	C	3	CTEC 12073
		CTEC 22032	Software Engineering	C	2	CTEC 12073
		CTEC 22043	Object Oriented Programming	C	3	CTEC 12073
		CTEC 22053	Computer Architecture & Operating Systems	C	3	CTEC 11063
		CTEC 22061	Systems and Network Laboratory	C	1	CTEC 12052
		DELT 22552*	English for Technology	C	2	DELT 13522
		LNPR 22072*	Japanese Language – II	O	2	LNPR 21072

Course Structure for the BICT Honours Degree Programme

Course Units offered for the Computer Networks Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 3	Semester 1	CTEC 31013	Web Programming II	C	3	CTEC 21042
		CTEC 31023	Mobile Application Development	C	3	CTEC 21042
		CTEC 31032	ICT for Business	C	2	GTEC 23032
		CTEC 31042	Python Programming	C	2	CTEC 22023
		CTNT 31012	Introduction to Telecommunication	C	2	CTEC 12052
		CTNT 31022	Wireless and Mobile Communication	C	2	CTEC 12052
		ENPR 31042	Principles and Practices of Management and Technology Management	C	2	GTEC 23032
	Semester 2	GTEC 32012	Project Management	C	2	GTEC 23032
		CTEC 32023	Internet of Things	C	3	CTEC 22053,CTEC 31022
		CTNT 32012	Optical Fibre Communications and Satellite Communications	C	2	CTNT 31022
		CTNT 32032	Virtualization and Cloud Computing	C	2	CTEC 21052,CTEC 22053
		CTNT 32042	Advanced Communication Networks	C	2	CTNT 31022
		CTNT 32051	Cyber Security Laboratory	C	1	CTEC 21052
		CTNT 32062	Mobile Computing	C	2	CTNT 31022
Year 4	CTEC 41016	Industrial Training	C	6	All compulsory units up to Level IV Sem I	
	CTEC 43018	Project	C	8	All compulsory units up to Level III	
	CTNT 44021	Advanced Networking Laboratory	C	1	CTNT 32042	
	CTNT 44032	Network and System Administration	C	2	CTNT 32042	
	CTNT 44042	Advanced Wireless and Mobile Communication	C	2	CTNT 31022	
	CTNT 44053	Network and Information Security	C	3	CTNT 32042	
	CTNT 44062	Security Management	C	2	CTNT 21052	
	CTNT 44073	Distributed Computing	C	3	CTNT 22053,CTNT 32062	
ENPR 44043	Entrepreneurship and Small Business Management	C	3	ENPR 31042		

Course Structure for the BICT Honours Degree Programme

Course Units offered for the Games and Animation Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite
Year 3 Semester 1	CTEC 31013	Web Programming II	C	3	CTEC 21042
	CTEC 31023	Mobile Application Development	C	3	CTEC 21042
	CTEC 31032	ICT for Business	C	2	GTEC 23032
	GANI 31012	Data Structures for Game Development	C	2	CTEC 22023
	GANI 31022	Introduction to 3D Modelling	C	2	GTEC 21043, CTEC 22023
	GANI 31032	Game Design and Development	C	2	CTEC 22043
	ENPR 31042	Principles and Practices of Management and Technology Management	C	2	GTEC 23032
	GTEC 32012	Project Management	C	2	GTEC 23032
	CTEC 32012	Human Computer Interaction	C	2	CTEC 22043
	GANI 32013	Advanced 3D Modelling Workshop	C	3	GANI 31022
Year 3 Semester 2	GANI 32024	Mathematics for Modelling and Rendering	C	4	GTEC 22033
	GANI 32033	Animation for Game Development	C	3	GANI 31022
	CTEC 41016	Industrial Training	C	v6	All compulsory units up to Level IV Sem I
	CTEC 43018	Project	C	8	All compulsory units up to Level III
	CTEC 44022	Software and Hardware Optimization Techniques	C	2	CTEC 22053
	GANI 44033	3D Games Prototyping	C	3	GANI 32013
	GANI 44043	Real-Time 3D Techniques for Games	C	3	GANI 32013
	GANI 44053	Fundamentals of Virtual Reality	C	3	GANI 32013
	GANI 44062	Motion Graphics Workshop	C	2	GANI 32024
	ENPR 44043	Entrepreneurship and Small Business Management	C	3	ENPR 31042
Year 4					

Course Structure for the BICT Honours Degree Programme

Course Units offered for the Software Systems Technology Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 3	Semester 1	CTEC 31013	Web Programming II	C	3	CTEC 21042
		CTEC 31023	Mobile Application Development	C	3	CTEC 21042
		CTEC 31032	ICT for Business	C	2	GTEC 23032
		CTEC 31042	Python Programming	C	2	CTEC 22023
		SWST 31022	Requirements Engineering	C	2	CTEC 22032
		SWST 31032	Applied Information Systems	C	2	CTEC 22032
		ENPR 31042	Principles and Practices of Management and Technology Management	C	2	GTEC 23032
	Semester 2	GTEC 32012	Project Management	C	2	GTEC 23032
		CTEC 32012	Human Computer Interaction	C	2	CTEC 22043
		SWST 32012	System Analysis and Design	C	2	CTEC 22032
		SWST 32022	Quality Assurance	C	2	CTEC 22032
		SWST 32033	Advanced Databases	C	3	CTEC 21063
		SWST 32043	Software Architecture and Concepts	C	3	CTEC 22032
		CTEC 41016	Industrial Training	C	6	All compulsory units up to Level IV Sem I
Year 4	CTEC 43018	Project	C	8	All compulsory units up to Level III	
	CTEC 44022	Software and Hardware Optimization Techniques	C	2	CTEC 22053	
	SWST 44022	Applied Internet-of-Things	C	2	CTEC 31013	
	SWST 44032	Scientific Communication	C	2	CTEC 22032	
	SWST 44042	Speech Interfaces	C	2	CTEC 32012	
	SWST 44053	Software Modelling	C	3	SWST 32012	
	SWST 44062	Enterprise Application Development	C	2	SWST 31032, S WST 32012	
ENPR 44013	Entrepreneurship and Small Business Management	C	3	ENPR 31042		

Reference

C : Compulsory **O** : Optional ***** : Non GPA Course Units (Credits are not considered in calculating the GPA)
GTEC : General Technology **CTEC** : Computer Technology **GCPR** : Generic Competency for Professionals
LNPR : Languages for Professionals **ENPR** : Entrepreneurship for Professionals **CTNT** : Communication Technology for Networking Technology
SWST : Software Systems Technology **GANI** : Games and Animations

Compulsory Course Units for Pathways

3rd Year

Course Code	Course Title	Pathway 1	Pathway 2	Pathway 3
CCTEC 31013	Web Programming II	X	X	X
CTEC 31023	Mobile Application Development	X	X	X
CTEC 31032	ICT for Business	X	X	X
CTEC 31042	Python Programming	X		X
ENPR 31042	Principles and Practices of Management and Technology Management	X	X	X
GTEC 32012	Project Management	X	X	X
CTEC 32023	Internet of Things	X		
CTEC 32012	Human Computer Interaction		X	X
Computer Networks Pathway				
CTNT 31012	Introduction to Telecommunication	X		
CTNT 31022	Wireless and Mobile Communication	X		
CTNT 32012	Optical Fibre Communications and Satellite Communications	X		
CTNT 32032	Virtualization and Cloud Computing	X		
CTNT 32042	Advanced Communication Networks	X		
CTNT 32051	Cyber Security Laboratory	X		
CTNT 32062	Mobile Computing	X		
Games and Animation Pathway				
GANI 31012	Data Structures for Game Development		X	
GANI 31022	Introduction to 3D Modelling		X	
GANI 31032	Game Design and Development		X	
GANI 32013	Advanced 3D Modelling Workshop		X	
GANI 32024	Mathematics for Modelling and Rendering		X	
GANI 32033	Animation for Game Development		X	
Software Systems Pathway				
SWST 31022	Requirements Engineering			X
SWST 31032	Applied Information Systems			X
SWST 32012	System Analysis and Design			X
SWST 32022	Quality Assurance			X
SWST 32033	Advanced Databases			X
SWST 32043	Software Architecture and Concepts			X
SWST 41062	Enterprise Application Development			X

Compulsory Course Units for Pathways

4th Year

Course Code	Course Title	Pathway 1	Pathway 2	Pathway 3
CTEC 43018	Project	X	X	X
CTEC 41016	Industrial Training	X	X	X
CTEC 44022	Software and Hardware Optimization Techniques		X	X
ENPR 44043	Entrepreneurship and Small Business Management	X	X	X
Computer Networks Pathway				
CTNT 44021	Advanced Networking Laboratory	X		
CTNT 44032	Network and System Administration	X		
CTNT 44042	Advanced Wireless and Mobile Communication	X		
CTNT 44053	Network and Information Security	X		
CTNT 44062	Security Management	X		
CTNT 44073	Distributed Computing	X		
Games and Animation Pathway				
GANI 44033	3D Games Prototyping		X	
GANI 44043	Real-Time 3D Techniques for Games		X	
GANI 44053	Fundamentals of Virtual Reality		X	
GANI 44062	Motion Graphics Workshop		X	
Software Systems Pathway				
SWST 44022	Applied Internet-of-Things			X
SWST 44032	Scientific Communication			X
SWST 44042	Speech Interfaces			X
SWST 44053	Software Modelling			X
SWST 44062	Enterprise Application Development			X

If a student has followed compulsory course units of a given pathway, aggregating to a minimum of 30 credits each in level 3 and 4, the pathway will be specified in the transcript.

Eligibility to Award the the BICT Honours Degree Programme

Eligibility for the Award of the Bachelor of Information and Communication Technology Honours Degree

To be eligible for the Bachelor of Information and Communication Technology Honours degree, a student must

- i. accumulate grades of D or better, in course units aggregating to at least 30 credits, including all compulsory course units considered for the calculation of the GPA in each academic year, totaling to minimum of 120 credits, and
- ii. obtain grades of C or better aggregating to at least 100 credits of which at least 40 credits should be from level 3 and 4 course units, and at least grades of D for the remaining course units considered in section (i) above, and
- iii. obtain grade C or better for the course unit CTEC 43018, and
- iv. obtain grades of D or better in each generic competency for professionals, course units (GCPR course units), and
- v. obtain grades of D or better in each language for professionals course units (LNPR course units), and
- vi. obtain a minimum GPA of 2.00 or greater, and
- vii. complete the relevant requirements within a period of six(06) Consecutive academic years.

First Class

A student who is eligible for the Bachelor of Information and Communication Technology Honours Degree may be awarded First Class if he/she

- i. obtains grades of C or better in all course units considered for the calculation of the GPA, and
- ii. obtains a GPA of 3.70 or greater , and
- iii. obtains grades of A or better aggregating to at least half the number of credits in level 3 and 4 course units, and
- iv. obtains grades of A or better aggregating to at least half the number of credits in level 1, level 2, level 3 and level 4 course units, and
- v. completes the relevant requirements within four consecutive academic years.

Second Class (Upper Division)

A student who is eligible for the Bachelor of Information and Communication Technology Honours Degree may be awarded Second Class (Upper Division) provided, if he/she

- i. obtains grades of C or better in all course units aggregating to at least 110 credits, and grades D or better in the remaining course units considered for the GPA calculation, and
- ii. obtains a GPA of 3.30 or greater, and
- iii. obtains grades of B or better aggregating to at least half the number of credits in level 3 and 4 course units, and
- iv. obtains grades of B or better aggregating to at least half the number of credits in level 1, level 2, level 3 and level 4 course units, and
- v. completes the relevant requirements within four consecutive academic years.

Eligibility to Award the BICT Honours Degree Programme

Second Class (Lower Division)

A student who is eligible for the Bachelor of Information and Communication Technology Honours Degree may be awarded Second Class (Lower Division) provided, if he/she

- i. obtains grades of C or better in all course units, aggregating to at least 110 credits, and grades D or better in the remaining course units considered for the GPA calculation, and
- ii. obtains a GPA of 3.00 or greater, and
- iii. obtains grades of B or better in level 3 and 4 course units, aggregating to at least half the number of credits accumulated in such course units, and
- iv. obtains grades of B or better in level 1, level 2, level 3 and level 4 course units, aggregating to at least half the number of credits accumulated in such course units, and
- v. completes the relevant requirements within four consecutive academic years.

Course Structure for the BET Honours Degree Programme

Credit Distribution of the Course Structure - BET Honours Degree

Level	Credits for Compulsory Courses	Credits for Optional Courses	Minimum Required Credits
Level 1	30	00	30
Level 2	30	02	30
Level 3			
Pathway 1	15	57	30
Pathway 2	15	57	30
Pathway 3	15	57	30
Level 4			
Pathway 1	19	30	31
Pathway 2	19	30	31
Pathway 3	19	30	31

Pathway 1 - Materials and Process Technology

Pathway 2 - Industrial Automation and Robotics

Pathway 3 - Sustainable Technology

Course Structure for the BET Honours Degree Programme

Common Course Units offered for the Bachelor of Engineering Technology Honours Degree Programme

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 1 Semester 1	GTEC 11013	Mathematics for Technology – I	C	3	GCE (A/L)	
	GTEC 11023	Physics for Technology I	C	3	GCE (A/L)	
	GTEC 11041	Engineering Drawing with CAD I	C	1	GCE (A/L)	
	ETEC 11052	Introduction to programming for Technology	C	2	GCE (A/L)	
	ETEC 11063	Chemistry for Technology	C	3	GCE (A/L)	
	GTEC 11071	Physics for Technology Laboratory I	C	1	GCE (A/L)	
	GTEC 13032	Projects in Technology I	C	2	GCE (A/L)	
	DELT 13522*	English for Computing & Technology	C	2	GCE (A/L)	
	Semester 2	GTEC 12013	Mathematics for Technology – II	C	3	GTEC 11013
		GTEC 12023	Physics for Technology II	C	3	GTEC 11023
		GTEC 12033	Fundamental Practices in Technology	C	3	GCE (A/L)
		GTEC 12041	Engineering Drawing with CAD II	C	1	GTEC 11041
		ETEC 12051	Engineering Workshop	C	1	GCE (A/L)
		GTEC 12062	Statistics for Technology	C	2	GTEC 11013
ETEC 12071		Chemistry for Technology Laboratory	C	1	GCE(A/L)	
GTEC 12081		Physics for Technology Laboratory II	C	1	GTEC 11071	
Year 2 Semester 1		GTEC 21013	Applied Calculus -I	C	3	GTEC 12013
		GTEC 21023	Fundamentals of Electronics	C	3	GTEC 12023
	GTEC 23032	Projects in Technology II	C	2	GTEC 13032	
	ETEC 21043	Engineering Materials -I	C	3	ETEC 11063 & GTEC 12033	
	ETEC 21053	Manufacturing Processes	C	3	ETEC 12051	
	ETEC 21062	Object Oriented Programming for Engineering Technology	O	2	ETEC 11052	
	LNPR 21072*	Japanese Language – I	O	2	GCE (A/L)	
	DELT 21512 *	English for the World	C	2	DELT 13522	
	Semester 2	GTEC 22013	Applied Calculus- II	C	3	GTEC 21013
		GTEC 22023	Sustainable Technology Systems	C	3	ETEC 11063 & GTEC 12033
		ETEC 22033	Applied Thermodynamics	C	3	GTEC 11023 & GTEC 12023
		ETEC 22042	Electric Circuits and Electric Machines	C	2	GTEC 21023 & GTEC 12081
		ETEC 22053	Industrial Control Systems	C	3	GTEC 11023 & GTEC 12023
		ETEC 22063	Mechanics of Materials	C	3	GTEC 11041 & GTEC 12041
DELT 22552*		English for Technology	C	2	DELT 13522	
LNPR 22072*		Japanese Language -II	O	2	LNPR 21072	

Course Structure for the BET Honours Degree Programme

Course Units offered for the Materials and Process Technology Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite
Year 3 Semester 1	EETEC 31013	Programming in Python for Engineering Technology	O	3	EETEC 11052
	EETEC 31023	Fluid Mechanics and Fluid Systems	C	3	EETEC 22033
	EETEC 31033	Mechanics of Machines	C	3	EETEC 22063
	ENPR 31042	Principles and Practices of Technology management	C	2	GTEC 23032
	ETMP 31213	Chemical Process Technology	O	3	EETEC 21043 & EETEC 21053
	ETMP 31223	Engineering Materials -II	O	3	EETEC 21043
	EETEC 32012	Machine Design with Computer Aided Design	C	2	GTEC 12041
	EETEC 32022	Manufacturing Systems and Computer Integrated Manufacturing	C	2	EETEC 21043 & EETEC 21053
	ENPR 33033	Innovations to Market	C	3	GTEC 23032
	GCPR 32041*	Professional Ethics and Practices	C	1	GTEC 12033
	ETMP 32213	Science of Engineering Materials	O	3	EETEC 21043 & GTEC 12023
	ETMP 32223	Materials Processes in Industry- I	O	3	EETEC 21043 & EETEC 21053
	ETMP 32233	Nanoscience and Nanomaterials	O	3	EETEC 21043
	ETMP 32243	Integrated Computational Materials Engineering	O	3	EETEC 32012 & EETEC 11063
Year 4 Semester 2	GTEC 41016	Industrial Training	C	6	All compulsory units up to Level 4
	EETEC 43018	Capstone Project	C	8	GTEC 23032 & ENPR 31042
	GCPR 44022*	Occupational Health and Safety	C	2	EETEC 12051 & GTEC 12081 & EETEC 12071
	ENPR 44033	Total Productive Maintenance (TPM)	O	3	EETEC 12051
	ENPR 44043	Entrepreneurship and Small Business Management	C	3	ENPR 31042
	ENPR 44052	Lean/Six Sigma Management	C	2	ENPR 31042
	ETMP 44213	Materials Processes in Industry –II	O	3	ETMP 32223
	ETMP 44223	Novel Engineering Materials and Next Generation Devices	O	3	ETMP 31223 & ETMP 32213
	ETMP 44233	Materials Characterization and Testing Laboratory	O	3	EETEC 21043 & EETEC 22063

Course Structure for the BET Honours Degree Programme

Course Units offered for the Industrial Automation and Robotics Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 3 Semester 1	ETEC 31013	Programming in Python for Engineering Technology	O	3	ETEC 11052	
	ETEC 31023	Fluid Mechanics and Fluid Systems	C	3	ETEC 22033	
	ETEC 31033	Mechanics of Machines	C	3	ETEC 22063	
	ENPR 31042	Principles and Practices of Technology management	C	2	GTEC 23032	
	ETIA 31413	Introduction to Industrial Automation	O	3	ETEC 22042 & ETEC 22053	
	ETIA 31423	Introduction to Microprocessors and Embedded systems	O	3	ETEC 11052	
	Semester 2	ETEC 32012	Machine Design with Computer Aided Design	C	2	GTEC 12041
		ETEC 32022	Manufacturing Systems and Computer Integrated Manufacturing	C	2	ETEC 21043 & ETEC 21053
		ENPR 33033	Innovations to Market	C	3	GTEC 23032
		GCPR 32041*	Professional Ethics and Practices	C	1	GTEC 12033
		ETIA 32413	Introduction to Robotics in Manufacturing	O	3	ETIA 31413
		ETIA 32423	Process Instrumentation and Control	O	3	ETEC 22042 & ETEC 22053
		ETIA 32433	Industrial Automation Networks	O	3	ETIA 31413
		ETIA 32443	Embedded systems and Applications	O	3	ETIA 31423
Year 4	GTEC 41016	Industrial Training	C	6	All compulsory units up to Level 4	
	ETEC 43018	Capstone Project	C	8	GTEC 23032 & ENPR 31042	
	GCPR 44022*	Occupational Health and Safety	C	2	ETEC 12051 & GTEC 12081 & ETEC 12071	
	ENPR 44033	Total Productive Maintenance (TPM)	O	3	ETEC 12051	
	ENPR 44043	Entrepreneurship and Small Business Management	C	3	ENPR 31042	
	ENPR 44052	Lean/Six Sigma Management	C	2	ENPR 31042	
	ETIA 44413	Computer Integrated Manufacturing	O	3	ETEC 32012 & ETEC 32022	
	ETIA 44423	Industrial Motion Control	O	3	ETIA 31423 & ETIA 32423	
	ETIA 44433	Computer Aided Manufacturing with Lab	O	3	ETEC 32012 & ETEC 32022	

Course Structure for the BET Honours Degree Programme

Course Units offered for the Sustainable Technology Pathway

Semester	Course Code	Course Title	Type	Credits	Pre-requisite
Year 3 Semester 1	ETEC 31013	Programming in Python for Engineering Technology	O	3	ETEC 11052
	ETEC 31023	Fluid Mechanics and Fluid Systems	C	3	ETEC 22033
	ETEC 31033	Mechanics of Machines	C	3	ETEC 22063
	ENPR 31042	Principles and Practices of Technology management	C	2	GTEC 23032
	ETST 31613	Hydrology and hydrogeology with lab	O	3	GTEC 11023 & ETEC 11063
	ETST 31623	Conventional and Alternative Energy Resources	O	3	GTEC 12023 & GTEC 22023
Semester 2	ETEC 32012	Machine Design with Computer Aided Design	C	2	GTEC 12041
	ETEC 32022	Manufacturing Systems and Computer Integrated Manufacturing	C	2	ETEC 21043 & ETEC 21053
	ENPR 33033	Innovations to Market	C	3	GTEC 23032
	GCPR 32041	*Professional Ethics and Practices	C	1	GTEC 12033
	ETST 32613	Energy Storage Technologies with Lab	O	3	GTEC 12023 & ETEC 11063
	ETST 32623	Water and Wastewater Treatment	O	3	GTEC 22023
Year 4	ETST 32633	Soil and Solid Waste Treatment	O	3	GTEC 22023
	ETST 32643	Air and Air Pollution Control	O	3	ETEC 11063
	GTEC 41016	Industrial Training	C	6	All compulsory units up to Level 4
	ETEC 43018	Capstone Project	C	8	GTEC 23032 & ENPR 31042
	GCPR 44022	*Occupational Health and Safety	C	2	ETEC 12051 & GTEC 12081 & ETEC 12071
	ENPR 44033	Total Productive Maintenance (TPM)	O	3	ETEC 12051
	ENPR 44043	Entrepreneurship and Small Business Management	C	3	ENPR 31042
	ENPR 44052	Lean/Six Sigma Management	C	2	ENPR 31042
	ETST 44613	Monitoring and Assessment of Sustainability	O	3	GTEC 22023
	ETST 44623	Sustainable Facilities and Operations	O	3	ETST 31623 & GTEC 22023
ETST 44633	Geographical Information Systems for Sustainability with Laboratory	O	3	ETEC 11052	

Reference

C : Compulsory	O : Optional	* : Non GPA Course Units (Credits are not considered in calculating the GPA)
GTEC : General Technology	ETEC : Engineering Technology	GCPR : Generic Competency for Professionals
LNPR : Languages for Professionals	ENPR : Entrepreneurship for Professionals	ETMP : Materials and Process Technology
ETIA : Industrial Automation and Robotics	ETST : Sustainable Technology	

Compulsory Course Units for Pathways

3rd Year

Course Code	Course Title	Pathway 1	Pathway 2	Pathway 3
Materials and Process Technology Pathway				
ETMP 31213	Chemical Process Technology	X		
ETMP 31223	Engineering Materials -II	X		
ETMP 32213	Science of Engineering Materials	X		
ETMP 32223	Materials Processes in Industry- I	X		
ETMP 32233	Nanoscience and Nanomaterials	X		
ETMP 32243	Integrated Computational Materials Engineering	X		
Industrial Automation and Robotics Pathway				
ETIA 31413	Introduction to Industrial Automation		X	
ETIA 31423	Introduction to Microprocessors and Embedded systems		X	
ETIA 32413	Introduction to Robotics in Manufacturing		X	
ETIA 32423	Process Instrumentation and Control		X	
ETIA 32433	Industrial Automation Networks		X	
ETIA 32443	Embedded systems and Applications		X	
Sustainable Technology Pathway				
ETST 31613	Hydrology and hydrogeology with lab			X
ETST 31623	Conventional and Alternative Energy Resources			X
ETST 32613	Energy Storage Technologies with Lab			X
ETST 32623	Water and Wastewater Treatment			X
ETST 32633	Soil and Solid Waste Treatment			X
ETST 32643	Air and Air Pollution Control			X

Compulsory Course Units for Pathways

4th Year

Course Code	Course Title	Pathway 1	Pathway 2	Pathway 3
Materials and Process Technology Pathway				
ETMP 44213	Materials Processes in Industry –II	X		
ETMP 44223	Novel Engineering Materials and Next Generation Devices	X		
ETMP 44233	Materials Characterization and Testing Laboratory	X		
Industrial Automation and Robotics Pathway				
ETIA 44413	Computer Integrated Manufacturing		X	
ETIA 44423	Industrial Motion Control		X	
ETIA 44433	Computer Aided Manufacturing with Lab		X	
Sustainable Technology Pathway				
ETST 44613	Monitoring and Assessment of Sustainability			X
ETST 44623	Sustainable Facilities and Operations			X
TST 44633	Geographical Information Systems for Sustainability with Laboratory			X

If a student has followed compulsory course units of a given pathway, aggregating to a minimum of 30 credits each in level 3 and 4, the pathway will be specified in the transcript.

Eligibility for the Award of the Bachelor of Engineering Technology (Honours) Degree

To be eligible for the Bachelor of Engineering Technology Honours degree, a student must

- i. accumulate grades of D or better, in course units aggregating to at least 30 credits, including all compulsory course units considered for the calculation of the GPA in each academic year, totaling to minimum of 120 credits, and
- ii. obtain grades of C or better aggregating to at least 100 credits of which at least 40 credits should be from level 3 and 4 course units, and at least grades of D for the remaining course units considered in section (i) above, and
- iii. obtain grade C or better for the course unit ETEC 43018, and
- iv. obtain grades of D or better in each generic competency for professionals, course units (GCPR course units), and
- v. obtain grades of D or better in each language for professionals course units (LNPR course units), and
- vi. obtain a minimum GPA of 2.00 or greater, and
- vii. complete the relevant requirements within a period of Six (06) consecutive academic years.

First Class

A student who is eligible for the Bachelor of Engineering Technology Honours Degree may be awarded First Class if he/she

- i. obtains grades of C or better in all course units considered for the calculation of the GPA, and
- ii. obtains a GPA of 3.70 or greater, and
- iii. obtains grades of A or better aggregating to at least half the number of credits in level 3 and 4 course units, and
- iv. obtains grades of A or better aggregating to at least half the number of credits in level 1, level 2, level 3 and level 4 course units, and
- v. completes the relevant requirements within four (04) consecutive academic years.

Second Class (Upper Division)

A student who is eligible for the Bachelor of Engineering Technology Honours Degree may be awarded Second Class (Upper Division) provided, if he/she

- i. obtains grades of C or better in all course units aggregating to at least 110 credits, and grades D or better in the remaining course units considered for the GPA calculation, and
- ii. obtains a GPA of 3.30 or greater, and
- iii. obtains grades of B or better aggregating to at least half the number of credits in level 3 and 4 course units, and
- iv. obtains grades of B or better aggregating to at least half the number of credits in level 1, level 2, level 3 and level 4 course units, and
- v. completes the relevant requirements within four (04) consecutive academic years.

Second Class (Lower Division)

A student who is eligible for the Bachelor of Engineering Technology Honours Degree may be awarded Second Class (Lower Division) provided, if he/she

- i. obtains grades of C or better in all course units, aggregating to at least 110 credits, and grades D or better in the remaining course units considered for the GPA calculation, and
- ii. obtains a GPA of 3.00 or greater, and
- iii. obtains grades of B or better in level 3 and 4 course units, aggregating to at least half the number of credits accumulated in such course units, and
- iv. obtains grades of B or better in level 1, level 2, level 3 and level 4 course units, aggregating to at least half the number of credits accumulated in such course units, and
- v. completes the relevant requirements within four consecutive academic years.

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

The pathways for the B.Sc. Honours in Computer Science Degree Programme is designed by retaining all the globally accepted core modules of computer science.

The course structure of this B.Sc. Honours in Computer Science Degree programme is designed to align with the recommendations of the Standing Committee on Computing of the UGC, and the guidelines of the Association for Computing Machinery (ACM) and the Institute of Electrical and Electronics Engineers (IEEE).

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

The common course structure for all the pathways in year 1 and year 2 (SLOL 3 and 4) is given below:

Semester	Course Code	Course Title	Type	Credits	Pre-requisite	
Year 1	Semester 1	CSCI 11014	Mathematics for Computer Science – I	C	4	G.C.E. (AL)
		CSCI 11023	Fundamentals of Statistics	C	3	G.C.E. (AL)
		CSCI 11032	Structured Programming – I	C	2	G.C.E. (AL)
		CSCI 11042	Fundamentals of Digital Electronics	C	2	G.C.E. (AL)
		CSCI 11052	Web Fundamentals	C	2	G.C.E. (AL)
		CSCI 11062	Introduction to Database Management Systems	C	2	G.C.E. (AL)
		CSCI 11072*	Foundations in Computer Science	O	2	G.C.E. (AL)
	Semester 2	DELT 13302*	English for Computing and Technology	C	2	G.C.E. (AL)
		CSCI 12013	Mathematics for Computer Science – II	C	3	CSCI 11014
		CSCI 12022	Probability Distribution and Applications	C	2	CSCI 11023
		CSCI 12033	Computer Architecture & Design	C	3	CSCI 11014
		CSCI 12042	Structured Programming – II	C	2	CSCI 11032
		CSCI 12052	Fundamentals of Operating Systems	C	2	CSCI 11014
		CSCI 12063	Web Programming	C	3	CSCI 11052
Year 2	Semester 1	CSCI 21013	Statistical Inference	C	3	CSCI 12022
		CSCI 21023	Data Communication and Networks	C	3	CSCI 11014/CSCI 11032
		CSCI 21033	Data Structures and Algorithms	C	3	CSCI 12042
		CSCI 21042	Software Engineering	C	2	CSCI 12042
		CSCI 21052	Object-Oriented Programming – I	C	2	CSCI 12042
		CSCI 21062	Advanced Database Management Systems	C	2	CSCI 11062
		CSCI 23072	Group Project	C	2	Compulsory units in Year 1
	Semester 2	DELT 21212*	English for the World	C	2	DELT 13302
		MGMT 21012*	Principles of Management	C	2	G.C.E. (AL)
		CSCI 22012	Statistics for Decision Making	C	2	CSCI 21013
		CSCI 22022	Advanced Operating Systems	C	2	CSCI 12052
		CSCI 22032	Object-Oriented Analysis and Design	C	2	CSCI 21042
		CSCI 22042	Visual Programming	C	2	CSCI 21052
		CSCI 22052	Introduction to Artificial Intelligence	C	2	CSCI 12013
CSCI 22062	Introduction to Cyber Security	C	2	CSCI 21023		
CSCI 22072	Mobile Application Development	O	2	CSCI 21052/CSCI 12063		
CSCI 22082	Object-Oriented Programming – II	C	2	CSCI 21052		
MGMT 22012*	Human Resource Management	C	2	MGMT 21012		

Reference

CSCI – Computer Science
C – Compulsory

DELT – English for Professionals
O – Optional

MGMT – Management
* – Non GPA Course Units (Credits are not considered in calculating the GPA)

Course Structure of the Pathways

Course units for the Year III and IV (SLQF 5 and 6):

Course units for Year III (SLQF 5)

Year III	Credits for Compulsory Courses	Credits for Optional Courses	Minimum Required Credits
Pathway 1	26	21	30
Pathway 2	25	20	30
Pathway 3	24	28	30
Pathway 4	27	30	30
Pathway 5	22	38	30

Pathway 1 – Cyber Security

Pathway 2 – Data Science

Pathway 3 – Artificial Intelligence

Pathway 4 – Scientific Computing

Pathway 5 – Standard Pathway

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

Year 3	Course Code	Course Title	Pre-requisite	Credits	Pathway 1	Pathway 2	Pathway 3	Pathway 4	Pathway 5
Semester 1	CSCI 31014	Mathematics for Computer Science III	CSCI 12013	4	C	C	C	C	C
	CSCI 31022	Machine Learning and Pattern Recognition	CSCI 22052	2	O	C	C	C	C
	CSCI 31032	Theory of Programming Languages	CSCI 21033	2	O	O	O	O	C
	CSCI 31042	Advanced Data Structures and Algorithms	CSCI 21033	2	O	C	O	O	O
	CSCI 31052	Project Management	CSCI 21042	2	O	O	O	O	O
	CSCI 31062	Semantic Web and Ontological Modeling	CSCI 12063	2		O	O	O	O
	CSCI 31072	Python Programming	CSCI 12042	2	O	C	O	O	O
	CSCI 31082	Systems and Network Administration	CSCI 21023,						
			CSCI 22022	2	C	O	O	O	O
	CSEC 31012	Applied Cryptography	CSCI 12013	2	C				O
	CSEC 31022	Data and Systems Security	CSCI 22022,						
			CSCI 21062	2	C				O
	AINT 31012	Natural Language Processing	CSCI 22052	2		O	C		O
	AINT 31022	Deductive Reasoning and Logic Programming	CSCI 12013	2			C	O	C
	SCOM 31013	Numerical Analysis and Scientific Programming	CSCI 12013,	3				C	
			CSCI 12042						
	SCOM 31022	Scientific Visualization	CSCI 12013,	2				C	
			CSCI 12042						
	SCOM 31032	Mathematical Modeling	CSCI 12013,	2				C	
			CSCI 12042						
DELT 33212*	English for Professional Purposes	DELT 21212	2	C	C	C	C	C	
MGMT 31012*	Introduction to Entrepreneurship	MGMT 22012	2	C	C	C	C	C	

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

Year 3	Course Code	Course Title	Pre-requisite	Credits	Pathway 1	Pathway 2	Pathway 3	Pathway 4	Pathway 5
Semester 2	CSCI 32012	Theory of Automation	CSCI 12013	2	C	C	C	C	C
	CSCI 32022	Human Computer Interaction	CSCI 21042	2	C	C	C	C	C
	CSCI 32032	Research Methodology and Scientific Communication	CSCI 22012	2	C	C	C	C	C
	CSCI 32042	Social and Professional Issues	CSCI 21042	2	C	C	C	C	C
	CSCI 32052	Distributed Systems & Cloud Computing	CSCI 12063	2	C	O	O	C	O
	CSCI 32062	Computer Graphics	CSCI 12013	2	O	O	C	C	C
	CSCI 32073	Introduction to Game Development	CSCI 21033	3			O	O	O
	CSCI 32083	Stochastic Processes	CSCI 21013	3	O	C	O	O	O
	CSCI 32092	Data Mining and Warehousing	CSCI 21062	2	O	C	O	O	O
	CSEC 32012	Wireless Communications and Networking	CSCI 21023	2	C	O	O	O	O
	CSEC 32022	Advanced Computer Communication and Networking	CSCI 21023	2	C			O	O
	CSEC 32032	Network Security	CSEC 31022	2	C				O
	DSCI 32012	Advanced Database Applications	CSCI 21062	2	O	C	O	O	C
	AINT 32012	Digital Image Processing and Computer Vision	CSCI 12013	2			C	O	O
	AINT 32022	Complex Systems & Agent Technology	CSCI 22052	2			O	C	O
	SCOM 32012	Parallel Computing	CSCI 21023	2	O	O	O	C	O

CSCI – Computer Science

CSEC – Cyber Security

AINT – Artificial Intelligence

DSCI – Data Science

SCOM – Scientific Computing

DELT – English for Professionals

MGMT – Management

Pathway 1 – Cyber Security

Pathway 2 – Data Science

Pathway 3 – Artificial Intelligence

Pathway 4 – Scientific Computing

Pathway 5 – Standard Pathway

C – Compulsory

O – Optional

* – Non GPA Course Units (Credits are not considered in calculating the GPA)

Course units for Year IV (SLOF 6):

Year IV	Credits for Compulsory Courses	Credits for Optional Courses	Minimum Required Credits
Pathway 1	26	22	30
Pathway 2	23	28	30
Pathway 3	24	26	30
Pathway 4	18	41	30
Pathway 5	14	49	30

Pathway 1 – Cyber Security

Pathway 2 – Data Science

Pathway 3 – Artificial Intelligence

Pathway 4 – Scientific Computing

Pathway 5 – Standard Pathway

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

Year 4	Course Code	Course Title	Pre-requisite	Credits	Pathway 1	Pathway 2	Pathway 3	Pathway 4	Pathway 5
		CSCI 43018	Research Project	All compulsory course units	8	C	C	C	C
	CSCI 44026	Industrial Training	All compulsory course units	6	C	C	C	C	C
	CSCI 44032	Mobile Computing	CSEC 32012	2	O	O	O	O	O
	CSCI 44042	Theory of Computability and Complexity	CSCI 32012	2			O	O	O
	CSCI 44052	Software Quality and Automation	CSCI 21042	2					O
	CSCI 44062	Software Architecture and Design	CSCI 21042	2					O
	CSCI 44072	Computer Modelling and Simulation	CSCI 32062	2			O	O	O
	CSCI 44082	Emerging Technologies in Computing	All compulsory course units	2	O	O	O	O	O
	CSCI 44092	Enterprise Application Development	CSCI 21042	2	O	O	O	O	O
	CSCI 44103	Advanced Compilers	CSCI 31032	3				O	O
	CSCI 44112	Introduction to Quantum Computing	CSCI 22052	2	O	O	O	O	O
	CSEC 44012	Internet of Things	CSCI 21023	2	C	O	O	O	O
	CSEC 44022	Information Security Management and Auditing	CSCI 22062	2	C				O
	CSEC 44032	Cyber Crime and Forensics	CSCI 22062	2	C	O		O	O
	CSEC 44042	Security Analytics	CSEC 31012	2	C				
	CSEC 44052	Cyber Laws and Standards	CSCI 22062	2	O	O		O	O
	CSEC 44062	Ethical Hacking and Vulnerability Analysis	CSEC 31022, CSEC 32032	2	C				
	CSEC 44072	Secure Software Engineering	CSEC 31022	2	C				O
	CSEC 44082	Information & Coding Theory	CSCI 22062	2	O			O	
	CSEC 44092	Mobile & IOT Security	CSEC 31012	2	O				
	CSEC 44102	Advanced Cryptography	CSEC 31012	2	O				
	DSCI 44012	Python for Data Science	CSCI 31072	2		C	O		O
	DSCI 44022	Data Visualization	CSCI 32092	2		C			
	DSCI 44033	Big Data Analytics	CSCI 32092	3		C			
	DSCI 44042	NoSQL Databases	DSCI 32012	2		O			O
	DSCI 44052	Time Series Analysis for Data Science	CSCI 21013	2		C	O	O	O
	DSCI 44062	Big data Architecture & Management	CSCI 32052	2		O	O		O
	DSCI 44072	Geographical Information Systems	CSCI 31042	2		O			
	AINT 44012	Artificial Neural Networks	CSCI 31022	2	O	O	C	O	O
	AINT 44022	Fuzzy Logic	CSCI 31014	2	O	O	C	O	O
	AINT 44032	Deep Learning	CSCI 31022	2		O	C		O
	AINT 44042	Machine Translation	AINT 31012	2			C		

Course Structure for the B.Sc. Honours in Computer Science Degree Programme

Year 4	Course Code	Course Title	Pre-requisite	Credits	Pathway 1	Pathway 2	Pathway 3	Pathway 4	Pathway 5
		AINT 44052	Intelligent Autonomous Robotics	CSCI 32022	2			C	O
	AINT 44062	Computational Cognitive Science	AINT 31022	2			O		
	AINT 44072	Introduction to Virtual Reality	CSCI 32062	2			O	O	O
	SCOM 44012	High Performance Computing	SCOM 32012	2	O	O	O	C	O
	SCOM 44022	Advanced Numerical Analysis and Scientific Programming	SCOM 31013	2				C	
	SCOM 44033	Survey of Materials Simulation Methods	CSCI 12042, CSCI 31014	3				O	
	SCOM 44043	Finite Element Methods in Scientific Computing	CSCI 12042, CSCI 31014	3				O	
	SCOM 44052	Graphics Processing Unit programming	CSCI 32062	2				O	

CSCI – Computer Science

CSEC – Cyber Security

AINT – Artificial Intelligence

DSCI – Data Science

SCOM – Scientific Computing

DELT – English for Professionals

C – Compulsory O – Optional

Pathway 1 – Cyber Security

Pathway 2 – Data Science

Pathway 3 – Artificial Intelligence

Pathway 4 – Scientific Computing

Pathway 5 – Standard Pathway

Selection Criteria for a Pathway

Any student can select the pathway 5 without any restriction (default pathway). A student with at least C grade for all course units in Year 1 and 2 are eligible for applying for a pathway 1, 2, 3 and 4. Applicants will be selected for the applied pathway on merit basis. A pathway will be offered only if at least ten (10) applicants are eligible for that pathway. Maximum number of students selected for a pathway is fifteen (15) and this number will be increased according to the student demand, national need or if the intake for the B.Sc. Honours in Computer Science Degree is increased.

Eligibility to Award the B.Sc. Honours in Computer Science Degree Programme

Eligibility for the Award of the B.Sc. Honours in Computer Science Degree

To be eligible for the B.Sc. Honours in Computer Science Degree, a student must

- i. accumulate grades of D or better, in course units aggregating to at least 30 credits, including all compulsory course units considered for the calculation of the GPA in each academic year, totalling to minimum of 120 credits, and
- ii. obtain grades of C or better aggregating to at least 104 credits of which at least 52 credits should be from level 3 and 4 course units, and at least grades of D for the remaining course units considered in section (i) above, and
- iii. obtain grade C or better for the course unit CSCI 43018, and
- iv. obtain grades of D or better for the MGMT course units, and
- v. obtain grades of D or better for professional course unit (DELT course units), and
- vi. obtain a minimum GPA of 2.00 or greater, and
- vii. completes the relevant requirements within a period of six (06) consecutive academic years.

First Class

A student who is eligible for the B.Sc. Honours in Computer Science Degree may be awarded First Class, if he/she

- i. accumulates grades of C or better in course units considered for the calculation of the GPA under eligibility criteria for the award of the degree above, and
- ii. obtains a minimum GPA of 3.70, and
- iii. obtains grades of A or better in course units aggregating to at least half the number of total credits for the course units considered under eligibility criteria for the award of the degree above, and
- iv. obtains grades of A or better in course units aggregating to at least half the number of total credits for the course units in year 3 and year 4 considered under eligibility criteria for the award of the degree above, and
- v. completes the relevant requirements within four (04) consecutive academic years.

Second Class (Upper Division)

A student who is eligible for the B.Sc. Honours in Computer Science Degree may be awarded Second Class (Upper Division), if he/she

- i. accumulates grades of C or better in course units aggregating to at least 112 credits considered for the calculation of the GPA under eligibility criteria for the award of the degree above, and
- ii. obtains a minimum GPA of 3.30, and
- iii. obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under eligibility criteria for the award of the degree above, and
- iv. obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units in year 3 and year 4 considered under eligibility criteria for the award of the degree above, and
- v. completes the relevant requirements within four (04) consecutive academic years.

Award of Class for B.Sc. Honours in Computer Science Degree Programme

Second Class (Lower Division)

A student who is eligible for the B.Sc. Honours in Computer Science Degree may be awarded Second Class (Lower Division), if he/she

- i. accumulates grades of C or better in course units aggregating to at least 112 credits considered for the calculation of the GPA under eligibility criteria for the award of the degree above, and
- ii. obtains a minimum GPA of 3.00, and
- iii. obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under eligibility criteria for the award of the degree above, and
- iv. obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units in year 3 and year 4 considered under eligibility criteria for the award of the degree above, and
- v. completes the relevant requirements within four (04) consecutive academic

Evaluation Procedure of the Faculty of Computing and Technology

Evaluation Procedure

The method of evaluation for each course unit may vary. In general, the performance of students for each course unit will be evaluated through Continuous Assessments (CA) such as assignments, group projects/activities, reports, presentations, quizzes, mid-term tests, practical examinations and End of Semester Examination (ES) such as Theory or Theory cum practical. At the commencement of the course unit, the method of evaluation will be announced by the respective lecturer. The Research Project at level four will be evaluated by dissertation and an oral presentation. The Industrial Training will be evaluated by industry supervisors' reports, individual report and an oral presentation.

Grading System

Marks obtained in respect of a course unit will be graded according to the following grading system. A grade point value is assigned to each grade.

Range of Marks	Grade	Grade Point Value
85-100	A+	4.0
70-84	A	4.0
65-69	A-	3.7
60-64	B+	3.3
55-59	B	3.0
50-54	B-	2.7
45-49	C+	2.3
40-44	C	2.0
35-39	C-	1.7
30-34	D+	1.3
25-29	D	1.0
00-24	E	0.0

Evaluation Procedure of the Faculty of Computing and Technology

Grade Point Average

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values, which is determined by dividing the total credit-weighted Grade Point Value by the total number of credits. GPA shall be computed to the second decimal place.

Example: A student who has completed one course unit with two credits, three course units each of three credits and two course units each of one credit with grades A, C, B, D, C+ and A+ respectively would have the GPA of 2.48 as calculated below.

$$\frac{(2 \times 4.0) + (3 \times 2.0) + (3 \times 3.0) + (3 \times 1.0) + (1 \times 2.3) + (1 \times 4.0)}{2 + 3 + 3 + 3 + 1 + 1} = \frac{32.3}{13} = 2.4846$$

$$\therefore \text{Grade Point Average} = 2.48$$

Grade point values and credit values of all registered course units in a study programme of a student shall be taken into account in calculating the final GPA, unless stated otherwise.

Completion of a course unit

A course unit will be considered as completed for the continuation of the programme if a student

1. obtains a D+ or better grade for Continuous Assessment (CA) component, and
2. obtains a D or better grade for End of Semester Assessment (Theory) component, and
3. obtains a D or better grade for End of Semester Assessment (Practical), if any

If a student fails to complete one or more above component(s), those components will be indicated in the transcript as "incomplete" and a (0.0) grade point value will be assigned. The following references will be used to indicate the status when a student has not completed a course unit:

Reference	Grade Point Value	Description
Inc(CA)	0.0	CA grade is below the prescribed minimum grade. Incomplete CA component.
Inc(ES-Theory)	0.0	ES-Theory grade is below the prescribed minimum grade. Incomplete ES-Theory component.
Inc(ES-Practical)	0.0	ES-Practical grade is below the prescribed minimum grade. Incomplete ES-Practical component.

Students should repeat for incomplete components of all incomplete course units in the following academic year and the best grade obtainable for each incomplete component is C.

Evaluation Procedure of the Faculty of Computing and Technology

Passing of a course unit

Students can obtain a pass grade (A+, A, A-, B+, B, B-, C+, C) for a course unit if and only if

1. the course unit is completed, and
2. the final marks obtained for the course unit is within the range of above grades.
3. satisfy the conditions 1 and 2 above within maximum of 4 attempts.

If the attendance of a student at a laboratory or laboratory component of a theory course unit (i.e theory cum practical) is less than 80 %, he/she will not be allowed to sit for the practical examination of the relevant course unit and will be considered as a referred candidate for the relevant course unit at subsequent sittings.

Students should complete all course units that they have registered for. If a student fails to complete a particular course unit by being absent for ES-Theory component, it will be indicated in the transcript as "absent" with the status of the other components and a zero (0.0) grade point value will be assigned to it.

Final Grade

Final grade will be decided by the final mark calculated as follows:

$$\begin{aligned} \text{Final mark} &= \text{Total CA marks} \times \text{CA\%} + \\ &\quad \text{Total ES (Theory) marks} \times \text{ES(Theory)\%} + \\ &\quad \text{ES(Practical) marks} \times \text{ES(Practical)\%} \end{aligned}$$

Here CA%, ES(Theory)% and ES(Practical)% are given in the detail course outline.

Evaluation Procedure of the Faculty of Computing and Technology

Repeating a Course Unit Examination

A student who obtains a final grade below "C" on a particular course unit or obtains a grade below "C" for ES(Theory) in an incomplete course unit may repeat the ES(Theory) examination of that course unit in the following academic year, to improve the grade. The best final grade obtainable in any of this instance is C. In the event a student obtains a lower grade while attempting to better grade, he/she will be entitled to the previous grade.

Completion of a Semester

A student is considered to have completed a semester successfully, if and only if the student:

1. has successfully completed all registered course units considered in the calculation of the GPA for the semester and
2. has achieved a semester GPA of 2.00 or above and
3. has no E grade for a course unit considered to calculate the GPA

Progression to the Third Year for the Bachelor of Information and Communication Technology Honours Degree and Bachelor of Engineering Technology Honours Degree

To register for the third year of study, the student should:

- Successfully complete the first three semesters. (i.e. both semesters of Level 1 and first semester of Level 2)

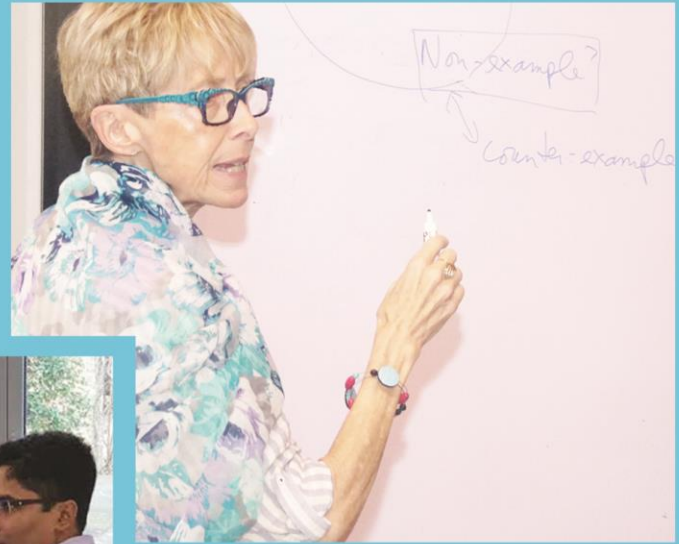
Special Re-sit examinations will be given for the incomplete course units of the third semester (i.e. 1st semester of the Level 2) ONLY.

Learning Centered Education

FCT has adopted the Learning Centred Education (LCE) pedagogy for its programme design and delivery for the first time in Sri Lanka. A series of workshops were conducted both in Sri Lanka and at the University of Oxford, UK under the guidance of Prof. Lynn McAlpine, Professor Emerita of University Education Development, Oxford Learning Institute, University of Oxford to train the staff and adopt the curriculum to reflect learning-centeredness.

The LCE approach promotes active learning where the emphasis is placed on creating and managing tasks and activities which will empower student learning, both inside and outside the class. The pedagogical style required to enable active learning is different to traditional lecturing. A different set of instructional and assessment strategies are adopted in the LCE approach to facilitate independent learning by the students. This approach places less importance on the traditional end of the semester exams, and a considerable percentage of marks will be earned by the students through in-class and outside the class activities which are spread throughout the module.





Industry Advisory Board

The Faculty of Computing and Technology has established an Industry Advisory Board composed of eminent professionals from the industry, representatives from industry associations as well as representatives from professional associations.

The role of the Industry Advisory Board (IAB) of the Faculty of Computing and Technology (FCT) is to serve as a liaison between the FCT and the industry as well as other institutional stakeholders in order to support the FCT in the formulation and attainment of its Mission and Strategic Objectives. It plays a key role in providing inputs and recommendations to the FCT from an industry perspective and guiding the strategic directions of the FCT in terms of academic programs, research and partnerships.

Mr. Anuradha Tennakoon who is currently a Group Director at Informatics Group of Companies was elected as the Chairman of the IAB at the inaugural meeting held on 29th September 2016.



Science and Technology Human Resources Development Project

The Science and Technology Human Resource Development Project funded by the Asian Development Bank (ADB) supports the government to develop technology faculties in three universities viz. University of Kelaniya, Rajarata University of Sri Lanka and Sabaragamuwa University of Sri Lanka, and the Faculty of Engineering at the University of Sri Jayewardenepura to nurture a new breed of technology-oriented graduates equipped with market-relevant skills and entrepreneurial spirit.

The total contribution for the project from the Asian Development Bank is USD 145 Million while the government contribution is USD 20 Million.

The project has five key outputs planned: (1). Innovative technology learning and research environment established, (2). Quality and industry-relevant higher technology education programs implemented, (3). Industry linkages and international collaborations strengthened, (4). Faculty management capacity strengthened, and (5). New higher education project preparation supported.

The Faculty of Computing and Technology of the University of Kelaniya has been allocated a total sum of USD 29.2 Million under this project and a further sum of USD 10 Million is available for the four universities to be utilised under competitive proposal basis.

The formal approval for the project was received on 30th August 2018 and the faculty will receive funding under this project until 30th June 2024 for its development activities.

The Faculty of Computing and Technology will utilise the above funding to construct a building complex at the proposed Mudun Ela premises, procure books, software & equipment, train the staff, establish partnership programmes with reputed international universities and develop collaborative programmes with the industry.

Several key laboratory facilities including a modern chemistry lab, a modern physics lab, an advanced network security lab and a virtual reality lab have already been established at the current premises at Peliyagoda.

The proposed building complex, constructed at a total cost of LKR 4350 million, will comprise of state-of-the-art laboratory facilities, lecture rooms and all other necessary amenities at an international standard. A total floor area of over 34,000 square meters spread in 6 buildings will be added to the faculty complex under this project. The 11-storey laboratory building is expected to be completed by February 2022, while the rest of the buildings will be completed by end 2023. These environmentally friendly buildings are expected to receive Platinum ratings under both UDA Blue Green building rating system as well as the green building rating system of the Green Building Council of Sri Lanka.



National E-learning Resource Center (NELRC)

The National E-learning Resource Center (NELRC) is established at the University of Kelaniya under the Faculty of Computing and Technology in the year 2017 with approval of Rs.250 million from the government budget of Sri Lanka.

The mission of NELRC is:

"Providing an effective e-learning environment through advanced information and communication technologies to allow the learner to be the center of the education process and to foster necessary employable skilled human resources to the nation".

The objectives of NELRC is:

- Disseminating e-culture through awareness and media campaigns to prepare the community to accept and interact with e-learning.
- Creating a public and private sector partnership for professional and career development
- To promote anywhere, anytime learning in Sri Lanka
- To provide knowledge at the doorstep for rural areas in Sri Lanka
- To promote blended teaching and learning in Sri Lanka
- To act as a professional certification and accreditation authority
- To increase the employability of young people
- To attract overseas investors and outsourcing jobs by creating a national knowledge workforce

In order to accomplish the said objectives, NELRC is engaging in developing e-learning content, provide consultation on e-learning, and training on e-learning and introduced quality assurance for digital contents. Through its operations of three years' time, NELRC has successfully achieved the major objectives it set at the beginning as follows.

1. Disseminating e-culture through awareness and media campaigns to prepare the community to accept and interact with e-learning.

- Introduced Sri Lanka's first interactive online multimedia e-learning production, E-Lankapura. E-Lankapura was aimed to fulfill the requirement of e-citizens of Sri Lanka by educating them on essential digital skills. Further, this product is now being used by the school teachers and students for ICT teaching purposes and also can be used as reference material in ICT courses.
- Successfully conducted a National blended learning workshop in 2018 for school teachers and university academics. It's a long-felt need to change the teacher-centered learning system to a student-centered teaching and learning system. It is required to change the mindset of teachers and lecturers' in Sri Lanka and also the teaching pedagogy. Blended learning is an essential ingredient in this process. These trained teachers are now using ICT tools for teaching in the classroom and their feedback shows that the training is successful.
- Trained university academics on game development, digital teaching, and using software engineering for e-learning. Game and animation have a huge market share in countries like Japan, Korea, and China. There is a potential market for digital games and animation in Sri Lanka too. However, the education system in Sri Lanka has not yet produced the necessary human resources to boost the game and animation industry in Sri Lanka. Sri Lanka Rupavahini Corporation like institutes use digital animations in their education programs and advertisements. There are a lot of challenges faced by them since the Sri Lankan university system has not yet ready to support them. As a result of the above training, NELRC introduced game development as a specialization area for the BICT degree program for the first time in Sri Lanka and the first batch will be passed out in 2021.
- NELRC has been invited by prominent electronic media institutes such as ITN and Rupavahini to conduct e-learning and ICT related programs targeting children to adults. Three programs have already been recorded at ITN and four of them telecasted. This promotes the name of the University of Kelaniya in Sri Lanka while providing ICT education to the children

2. To promote anywhere, anytime learning in Sri Lanka

3. To provide knowledge at the doorstep for rural areas in Sri Lanka

4. To promote blended teaching and learning in Sri Lanka

In Sri Lanka, the term "e-learning" is widely used for smart classrooms, hardware, and tools. However, effective and interactive learning materials play an important role in e-learning. However, a lack of attention in content development hinders the effectiveness of e-learning in Sri Lanka. NELRC has realized this need and takes the initiative to promote digital content development. At the moment, content development is limited to a few institutes or organizations. This limits the use of knowledge and experience of teachers and lecturers in content production. Therefore, NELRC has taken the necessary steps to empower teachers and lecturers to develop their own digital content.

In order to achieve the above three objectives, NELRC has developed an e-learning content development tool called NelCon Studio. NelCon studio can be learned after a few hours of training, thus the less complexity of the tool enables the teachers to develop their own e-learning contents easily while giving much consideration to lesson planning.

Teachers are now developing their own e-learning materials and distributing them to their students. Also, NELRC received very positive feedback from teachers, students as well as parents. Therefore, NELRC was able to achieve objectives 2, 3, and 4 successfully.

5. To act as a professional certification and accreditation authority

For the first time in Sri Lanka, NELRC has developed a quality assurance guideline for digital learning resources. This is the very first attempt made by any organization in Sri Lanka to develop quality assurance guidelines for digital content.

Though NELRC has achieved many of its objectives set at the inception, we are looking forward to strengthening the e-learning industry by conducting more research in the field of e-learning, especially related to the e-learning content tool developed by NELRC, the NelCon Studio.



International Conference on Advances in Computing and Technology 2020

The 5th International Conference on Advances in Computing and Technology (ICACT) – 2020, organized by the Faculty of Computing and Technology (FCT), University of Kelaniya was successfully held as an online conference on 28th of November 2020. The theme of the conference was "Conquering Global Challenges through Innovations in Computing, Technology, and Education". There were more than 90 research papers implying a very good international participation representing 15 countries including Sri Lanka. And there were papers from almost all the state Universities of Sri Lanka, and also from some private higher educational institutes as well.

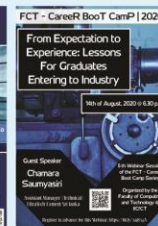


Industry Interaction Cell for Computing and Technology (IICfCT)

The Faculty of Computing and Technology ensures that you learn from the very best academics and gain valuable inputs, skills and knowledge during the lectures at the classrooms. To make it a more unique learning environment and to provide a more experiential learning during your stay with us at the faculty, FCT is giving you the opportunity to actively collaborate with the industry and learn from the active practitioners in the business and industry. The Industry Interaction is an essential requirement for the 21st century undergraduates and that will provide you with a better prospect when entering in to the professional career at the end of your degree program.

To facilitate the need of Industry Interaction, the faculty has launched the Industry Interaction Cell for Computing and Technology (IICfCT) in 2016, with the aim of enabling regular associations and meetings with corporate and to provide industry exposure to the students and enable them to pick up skills besides what is being imparted in the classrooms.

IICfCT is envisioned to be the industry arm of the FCT to the industry. The Cell aims to facilitate the process of effective faculty-industry interaction with the private and public partner industries, by providing reliable and cost-effective solutions to the industries while facilitating a learning experience to the faculty undergraduates and postgraduates, and collaborative research opportunities to the staff members. The Cell coordinates the professional activities and employability enhancement programs for the students to improve the soft skills, knowledge, and understanding of the corporate sector, and continuously aiming for career growth of every undergraduate through various industries based programs.



Outbound Training (OBT) program



The outbound training program for the young leaders of the Faculty of Computing and Technology at University of Kelaniya was held successfully for two consecutive years at the Police Training College – Kalutara. The two-day interactive program was organized by the faculty to improve the group dynamics and facilitate personality development of the freshman undergraduates of the faculty. The Faculty of Computing and Technology is adopting the Learning-Centred Education paradigm in its degree programs which focuses on skills and practices that improves lifelong learning and independent problem-solving ability of the students. Through the OBT program, the faculty has taken another step towards changing the attitudes and mindset of students from the traditional class room environment, and providing a valuable learning experience for accomplishing the life challenges and making a positive impact on their work performance. The event was geared towards enhancing the skills in competent leadership, team building, trust-building, personality and self-confidence building, effective and efficient decision making, and other important skills that are necessary in improving the quality of student's academic and personal lives. The program was structured as a series of fun-filled, yet challenging activities including, rappelling, aerial roping, boating, hiking, and many mind-challenging activities and with motivational seminars. The activities assisted the students to overcome their fears and face the challenges with courage and fortitude. The residential program was conducted by the officers and the training staff of the Operational and In-service Training division of the Sri Lanka Police Training College.





Faculty of Computing and Technology
University of Kelaniya
Sri Lanka