GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

STUDENT HANDBOOK

FACULTY OF COMPUTING

DEPARTMENT OF INFORMATION TECHNOLOGY

INTAKE 42

GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

FACULTY OF COMPUTING

STUDENT HANDBOOK

INTAKE 42

BSC. (HONS) IN INFORMATION TECHNOLOGY

BSC. (HONS) IN INFORMATION SYSTEMS

CONTACT

DEAN- FACULTY OF COMPUTING +94-11-2622995
DEPARTMENT OF INFORMATION TECHNOLOGY +94-47-2030800

University Web Page: www.kdu.ac.lk
Faculty Web Page: www.kdu.ac.lk/Faculty-of-Computing
E-mail: hodit@kdu.ac.lk
Postal Address:
Faculty of Computing,
Southern Campus,
General Sir John Kotelawala Defence University,
Nugegalayaya,
Sewanagala.

Vision

To be a university nationally and internationally known for its unique ability to engage both undergraduate and graduate students in distinctive and interdisciplinary defense related higher education that best serves the tri-services, the state sector and society at large.

Mission

To ensure a high-quality, learner-centered educational experience through undergraduate, graduate, and professional programs along with high quality research across many disciplines in the field of defense, in both residential and non-residential settings in the campus.

Message of the Dean

Incepted in 2015, the Faculty of Computing of General Sir John Kotelawala Defence University has come a long way in a time span of less than a decade, and its progressive steps are admirable. At present, the Faculty of Computing offers a total of six (06) undergraduate degrees in specialized areas of Information Technology, Computer Science, Information Systems, Computer Engineering, Software Engineering and Data Science Business Analytics, which covers a wide spectrum of Computing as one of the most pragmatic sectors in the world. The faculty of Computing offers degrees for students of all streams in the GCE Advanced Level Examination (except Technology Stream). The Faculty aims to be the main umbrella of undergraduate education in Sri Lanka in pragmatic aspects of computing disciplines, and that objective is well reflected through our undergraduate degree programmes. Further, the degree programmes are benchmarked with the Association of Computing Machinery/Institute of Electronic and Electrical Engineering (ACM/IEEE) and have aligned with the Sri Lanka Qualification Framework (SLQF). With a student population of around 1000, the Faculty aspire to provide professionals to the IT/Computing field who would excel in advanced and updated knowledge and contribute to the rapid sectoral growth and ultimately the society at large. Notably, the academia, with diverse and well-versed knowledge and practice in areas of Computing, facilitates proactively to achieve the goals of the Faculty as one team.

Predicting the future of computing is challenging given the constant evolution of technology. Key drivers of this vision include Green Computing, which prioritizes sustainable solutions while optimizing energy efficiency and reducing environmental impact, and Artificial Intelligence (AI), which focuses on simulating human behavior through machines. The Faculty of Computing is dedicated to fostering this future by delivering IT education aligned with domestic and international quality standards, focusing on designing degree programs that anticipate future needs. As we progress in Research and Development, our aim is to position the Faculty as a central hub for IT education and research.

Dr Pradeep Kalansooriya

PhD(JAPAN), MIT (SL) , BSc(Hons) (SL), JSKE, CSSL

Table of Contents

1. General Information

1.1 The University

General Sir John Kotelawala Defence University (KDU) was initially established as the "General Sir John Kotelawala Defence Academy" by the Parliamentary Act No 68 of 1981 and subsequently it was elevated to University status by the Amendment Act No 27 of 1988, thereby empowering it to award Bachelors' and Postgraduate degrees in Defense Studies.

KDU is a member of the Association of Commonwealth Universities (United Kingdom) and maintains necessary standards for educating and grooming officer cadets to meet the challenges of modern defense management.

KDU is now open for civil students who wish to continue their higher studies in the fields of Engineering, Law, Management, Social Sciences and IT.

Officers with exceptional performance in reputed universities/institutions can pursue postgraduate studies in accordance with the requirements of the service to which they belong. Civil professionals are also offered a place at postgraduate studies to excel in and study a post-graduate degree in their related field of expertise.

1.2 Faculty of Computing

In 2015, the Faculty of Computing (FOC) of General Sir John Kotelawala Defence University was established with the dawn of the Southern Campus of KDU at Sooriyawewa. This is the first ever Computing Faculty in the Sri Lankan State University System dedicated to offer the widest spectrum of computing degrees under one umbrella of Computing, and all the computing degrees offered by FOC have been benchmarked with ACM/IEEE international standards.

FOC comprises four departments catering for teaching and research in theoretical foundations of the field of computing, engineering of computer hardware and software, mathematical and statistical requirements of computing, and technological and social aspects of computing. FOC strives to build students' enthusiasm, intellectual capacity, and active involvement in research from the day one of their undergraduate studies. FOC at KDU is the only Computing Faculty in the State University System that offers the widest spectrum of Computing Degrees for students of all streams of G.C.E (A/L) except Technology Stream.

1.3 Academic Departments

1.3.1 Department of Information Technology

Department of Information Technology is the oldest department of the Faculty of Computing. This department offers more applications/ practicals oriented IT courses, and courses on organizational behavior, business and management. The department offers two degrees, namely BSc (Hons) in Information Technology and BSc (Hons) in Information Systems targeting candidates from all streams of G.C.E (A/L) except Technology Stream. Courses in the first two years are common to both degree programs and specialization in either IT or in IS begins from the third year. These two degree programs produce graduates with two different skills, namely, more technically oriented professionals (IT) and more management/business oriented professionals (IS) with technical knowledge.

1.3.2 Department of Computer Science

The Department of Computer Science has been established on 1st of January 2015 with the objective of producing Computer Science professionals of international standard and to fulfill the requirements of booming IT industry and develop researchers. It offers courses related to Scientific and Theoretical aspects of computing and enables introducing new courses on emerging trends in computing with an emphasis on the developments in Artificial Intelligence.

The Department of Computer Science is proud to offer two major computing courses including BSc (Hons) in Computer Science and BSc (Hons) in Software Engineering. These programs are targeting Science students from G.C.E (A/L). This department offers a large percentage of computing courses for BSc (Hons) in Computer Engineering, BSc (Hons) in Information Technology and BSc (Hons) in Information Systems as well. The department engages in a wide spectrum of research in broad areas of Theoretical Computing and Artificial Intelligence. This department also envisages strengthening the faculty wise research culture.

1.3.3 Department of Computer Engineering

Department of Computer Engineering is one of the newly established department of the Faculty of Computing. This department offers the degree of BSc (Hons) in Computer Engineering. This degree program provides students with an appropriate understanding of Software Technologies and Applications, Software Engineering, Network Technologies, Web Technologies, Leadership and Industrial Knowledge.

1.3.4 Department of Computational Mathematics

Department of Computational Mathematics is a recently established department of the Faculty of Computing. The department offers courses in three specific subject areas, namely, Mathematics & Statistics, Computational Intelligence and Theory of Computing. The courses primarily provide Mathematics and Statistics knowledge required for the degrees offered by the Faculty of Computing.

2 General Regulations

2.1 Admission Requirement

The durations of the degree programs and the minimum requirements to enter the Computing Programs at KDU are as follows:

Table 1: Degree Programs and Selection Criteria

Degree Programs	Duration	G.C.E (As/L) - Stream
BSc (Hons) in Information Technology (IT)	Military: 04 1/2 Years Civil: 04 Years	Biology / Maths / Commerce or Arts
BSc (Hons) in Information Systems (IS)	Military: 04 1/2 Years Civil: 04 Years	Biology / Maths / Commerce or Arts
BSc (Hons) in Computer Science (CS)	Military: 04 1/2 Years Civil: 04 Years	Maths
BSc (Hons) in Software Engineering (SE)	Military: 04 1/2 Years Civil: 04 Years	Maths
BSc (Hons) in Computer Engineering (CE)	Military: 04 1/2 Years Civil: 04 Years	Maths
BSc (Hons) in Data Science and Business Analytics	Military: 04 1/2 Years Civil: 04 Years	Maths

- The candidate should have a minimum of three Simple (S) Passes at the G.C.E. (A/L) Examination in the relevant stream and be qualified for university admission.
- Those who have followed the G.C.E (A/L) Examination in Biology / Maths/ Commerce, Arts streams or Technology (Subjects: Information and Communication Technology (ICT) and any other two subjects) are eligible to apply for IT and IS Degree Programs.

- A minimum of a Credit (C) Pass for English Language at G.C.E (Ordinary Level) Examination.
- A pass mark (marks 30 and above) for the Common General Test.

The Following additional requirements are to be fulfilled by those applying as military students.

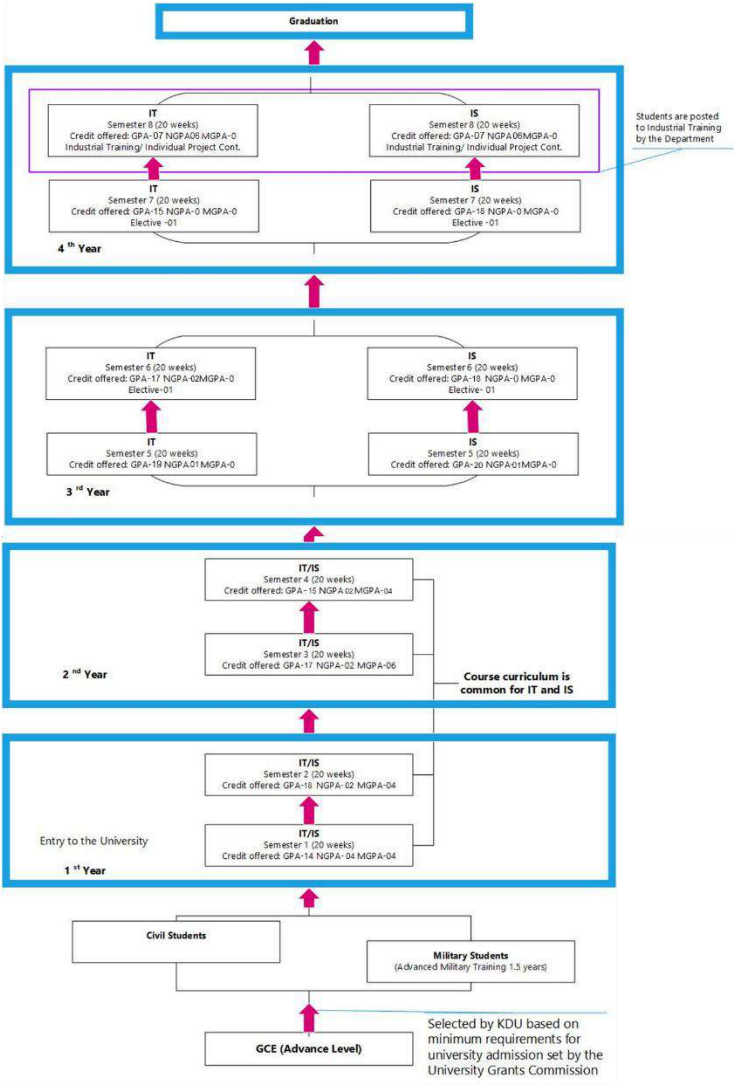
- Be a citizen of Sri Lanka.
- Be not less than 18 years and not more than 22 years of age on the closing date of applications.
- Be unmarried.
- Have a body weight not less than 50 kg (110 lbs).
- Have an unexpanded chest not less than 81.25 cm (32”).
- Have a height not less than

Table 2 Minimum Height Requirement

	Army	**Navy**	**Air Force**
Male	165.1 cm (5’5”)	167.6 cm (5’.6”)	167.6 cm (5’.6”)
Female	152.4 cm (5’3”)	160.0 cm (5’.3”)	162.5 cm (5’4”)

2.2 Course Structure

BSc (Hons) in Information Technology and BSc (Hons) in Information Systems Degree Programs



3 Structure of the Curriculum and Courses

3.1 Courses Offered by The Faculty of Computing

3.1.1 BSc (Hons) in Information Technology

Bachelor of Science Honours in Information Technology Degree -BSc Hons (IT) at KDU has been designed in accordance with ACM/IEEE international guidelines. BSc Hons (IT) Degree program provides students with an appropriate understanding of Software Technologies and Applications, Software Engineering, Network Technologies, Web Technologies, and Industrial Knowledge. Further, they must understand the concepts and processes for achieving organizational goals with Information Technology. In addition to sound technical knowledge and organizational understanding, they must possess thinking skills, the ability to analyze business problems, communication skills, and teamwork skills in face-to-face and virtual settings.

3.1.2 BSc (Hons) in Information Systems

Bachelor of Science Honours in Information Systems Degree – BSc Hons (IS) program at KDU has been designed in accordance with ACM/IEEE international guidelines. BSc Hons (IS) degree program provides students with an appropriate understanding of Foundations of Information Systems, Data & Information Management, Enterprise Architecture, Project Management, IT Infrastructure, Systems Analysis & Design, and IS Strategies. Further, they must understand concepts and processes for achieving organizational goals with Information Systems. In addition to sound technical knowledge and organizational understanding, they must understand, analyze and make use of the fundamental concepts related to organizational processes and systems, thereby apply various tools and techniques on how vast amount of data collected by modern organizations can be used to review, redesign, and improve processes.

3.1.3 BSc (Hons) in Computer Science

The intention of formulating this program is to provide Computer Scientists to the tri-services and serve the growing demand for theoretically specialized graduates in the modern industry locally as well as internationally. This program has designed futuristically considering the needs of the industry and employability of the graduates produced. Our curriculums have been designed according to ACM/IEEE international standard. The courses in this program span a wide range, from its theoretical and algorithmic foundations to cutting-edge developments in Algorithms, Database, Artificial Intelligence, Networking and other exciting areas.

3.1.4 BSc (Hons) in Software Engineering

BSc (Hons) in Software Engineering program is concerned with the development and maintenance of software systems that behave reliably and efficiently. This program is different in character from other engineering disciplines due to both the intangible nature of software and the discontinuous nature of software operation. Courses of this program seek to integrate the principles of mathematics and computer science with the engineering practices developed for tangible, physical artifacts. Degree programs in Software Engineering have many courses. This program offers more about software reliability and maintenance and focuses more on techniques for developing and maintaining software that is correct from its inception. The curriculum has been designed according to ACM/IEEE international standard.

3.1.5 BSc (Hons) in Computer Engineering

BSc (Hons) in Computer Engineering Degree Program involves modeling, designing, implementation, testing, evaluation and integration of computer hardware and software to create computing systems. Computer Engineers use both hardware concepts from electrical engineering and system software concepts from Computer Science. Graduates will be well prepared to work in areas such as Digital Logic Design, Computer Organization/Architecture and Design, Algorithm Design and Analysis, Embedded Systems, Compilers, and Operating Systems. Elective options in the curriculum offer preparation in Software Engineering, Databases, Dependable Systems, Networking and Communications, VLSI, Graphics, Image Processing, Visualization, Artificial Intelligence, and Control Systems. Nearly all students in the Computer Engineering Program engage in collaborative research with faculty, through internships or independent study. These provide students have access to state-of-the-art facilities in computer engineering and computer vision such as those of the Laboratory for Engineering Man/Machine Systems. This degree program of KDU has been designed in accordance with ACM/IEEE international guidelines.

3.1.6 BSc (Hons) in Data Science and Business Analytics

BSc Hons in Data Science and Business Analytics degree programme provides students with the required knowledge and experience of Computer Science, Mathematics and Statistics, Management, and Communication in English that is needed in many branches of science such as, Data Science, Medicine, Engineering, and Business.

The computer science subject area intends to deliver a broad overview of the general field of computer science concepts, theories and tools required to support students in pursuing a data science degree programme. The Mathematics and Statistics subject area is a main part in the data science degree curriculum and intends to provide the fundamentals of mathematical and statistical concepts that are essential in data science. Application of Management is intended to cover three perspectives: financial, operational, and strategic perspectives, which have been developed in order to enhance the students' strategic thinking and application abilities. Communication in English is intended to equip students with the skills to communicate effectively with a variety of audiences through oral, written, and visual modes. This degree program of KDU has been designed in accordance with ACM/IEEE international guidelines.

3.2 Career Opportunities

3.2.1 Information Technology

Information Technology offers a foundation that permits graduates to adapt to new technologies and new ideas. Information Technology degree opens a variety of doors in the exciting world of technology. It was the only substantive computing discipline that focused explicitly on software development when academic computing degree programs were emerged. Mainly institutions such as software companies, offer career opportunities to graduates in Information Technology. Apart from that, Information Technology graduates are capable of applying any government job opportunity where the basic requirement is a bachelor's program. Also, graduates are encouraged for higher studies to pursue careers in academic field.

Information Technology is often central to groom a problem solver, skilled practitioner or a research investigator who works to integrate technology to solve problems in verity of settings in effective and efficient manner. IT graduates apply their knowledge and skills in software development, system integration, operation and deployment to support organizational projects as well as community activities through providing wide range of IT solutions for the real-world problems. They are capable of explain and justify professional decisions in a way that both clients and the management understand .IT graduates are professionals, who familiar with various laws and regulations that govern the development and operations of the IT platforms and practiced preforming duties in ethical manner.

The graduates from these programs are guaranteed with white collar employment in a thriving and prospering industry that is highly sought after in both domestic and international job market. IT job opportunities include, Software Developers/Engineers, Network Engineers, User Interface Engineers and many other IT related management vocations. Database Administrators and Enterprise Resource Planning professionals. Moreover, a career path in this area can involve advanced graduate work, followed by a position in a research university or industrial R&D lab, or it can involve entrepreneurial activity based on the following table.

Table 3 Graduates Career Paths IT

Category/ Field	Occupation/ Career
Engineer	Database Administrator Web Developers Mobile Application Developers Network Engineers Network Administrator Systems Administrator System Analyst Information Security Engineer Cyber Security Engineer
Academic/ Research	University/HE Academic or Academic/Training support staff Engineer (Training) Research positions at public sector organizations Private sector research and development officer
Alternative Careers	Entrepreneurs Management Trainee Sales Engineer /Executive Project Manager

3.2.2 Information Systems

Information Systems offers a foundation that permits graduates to adapt to new technologies and new ideas. Information Systems degree opens a variety of doors in the exciting world of technology. It was the only substantive computing discipline that focused explicitly on software development when academic computing degree programs were emerged. Mainly institutions such as software companies, offer career opportunities to graduates in Information Systems. Apart from that, Information Systems graduates are capable of applying any government job opportunity where the basic requirement is a bachelor's program. Also, graduates are encouraged for higher studies to pursue careers in academic field.

Information Systems is often central to groom a problem solver, skilled practitioner or a research investigator who works to integrate Information Systems concepts to solve problems in verity of settings in effective and efficient manner. They are capable of explain and justify professional decisions in a way that both clients and the management

understand .IS graduates are professionals, who familiar with various laws and regulations that govern the development and operations of the IS platforms and practiced preforming duties in ethical manner.

The graduates from these programs is guaranteed with white collar employment in a thriving and prospering industry that is highly sought after in both domestic and international job market. IS job opportunities includes, Database Administrators, Enterprise Resource Planning professionals, Business Analysts, Quality Assurance Engineers and many IS related management vocations. Moreover, a career path in this area can involve advanced graduate work, followed by a position in a research university or industrial R&D lab, or it can involve entrepreneurial activity based on the following table.

Table 4 Graduate Career Paths IS

Category/ Field	Occupation/ Career
Engineer	Web Developers Network Engineers Network Administrator Systems Administrator System Analyst Information Security Engineer Cyber Security Engineer
Academic/ Research	University/HE Academic or Academic/Training support staff Engineer (Training) Research positions at public sector organizations Private sector research and development officer
Alternative Careers	Entrepreneurs Management Trainee Sales Engineer /Executive Project Manager

3.3 Credit Ratings and Course Codes

3.3.1 BSc (Hons) in IT and BSc (Hons) in IS (Level 1)

The following table gives an overall summary of the course units entitled for the level one of the BSc (Hons) in Information Technology and BSc (Hons) in Information Systems Degree Programs. The respective course units have been outlined in detail beneath the table.

Table 5 Level one IT IS course unites

Level 1								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 1								
IT11012	Information Technology Concepts	C	2	0	0	14	4	4
IT11022	Fundamentals of Computer Programming	C	2	0	0			
IT11031	Computer Programming Laboratory	C	1	0	0			
IT11042	Fundamentals of Computer Systems	C	2	0	0			
IT11052	Fundamentals of Multimedia Technologies	C	2	0	0			
CM11113	Mathematics for IT I	C	3	0	0			
MF1112	Principles of Management	C	2	0	0			
DL1172	English Study Skills for ICT	C	0	2	0			
LS1052	Leadership Training	C	0	2	0			
MS1014	Military Studies I	M	0	0	4			
Total for Semester 1						**14**	**4**	**4**
Semester 2								
IT12012	Object Oriented Designing	C	2	0	0	18	2	4
IT12023	Object Oriented Programming	C	3	0	0			
IT12033	Fundamentals of Database Management Systems	C	3	0	0			
IT12042	Computer Systems Architecture	C	2	0	0			
IT12052	Internet of Things (IoT) Applications and Design	C	2	0	0			
IT12062	Computer Network Systems I	C	2	0	0			
IT12072	Web Technologies	C	2	0	0			
CM12062	Basic Probability and Statistics	C	2	0	0			
DL2192	Presentation Skills for ICT	C	0	2	0			
MS2024	Military Studies II	M	0	0	4			
Total for Semester 2						**18**	**2**	**4**
Total for Level 1						**32**	**6**	**8**

3.3.1.1 Semester 01

Information Technology Concepts **IT11012**

This module introduces modern software development concepts, and their principles, and its practices which provides the necessary academic groundwork in the software development process.

Credits 02 GPA-Compulsory

Fundamentals of Computer Programming **IT11022**

This module aims to introduce programming concepts which allows the creation of procedure–oriented programs which will be useful to solve certain problems.

Credits 02 GPA-Compulsory

Computer Programming Laboratory **IT11031**

This module aims to gain hands on experience in laboratory environment in order to be proficient in programming concepts.

Credits 01 GPA-Compulsory

Fundamentals of Computer Systems **IT11042**

This module is designed to teach students the computer visualization used for e–Learning, web industry, gaming, movies, and multimedia developments using various computer animation and other multi–media manipulation software.

Credits 02 GPA-Compulsory

Fundamentals of Multimedia Technologies **IT11052**

The module aims to instruct students in multimedia technologies applicable to e-learning, web development, gaming, movies, and multimedia projects. It utilizes various computer animation and multimedia manipulation software. Furthermore, it builds upon concepts acquired in the 'Fundamentals of multimedia technology' module from the first year, first semester, encouraging students to apply this knowledge in real-life scenarios through collaborative teamwork.

Credits 02 GPA-Compulsory

Mathematics for IT - I **CM11113**

The aim of this module is to develop logical thinking and problem–solving skills in number systems, set theory, functions and vector algebra.

Credits 03 GPA-Compulsory

Principles of Management **MF1112**

This module is to provide learners with an opportunity to learn and then apply various theories/concepts/ideas/practices associated the field of Management.

Credits 02 GPA-Compulsory

English Study Skills for ICT **DL1172**

This module aims to assist the students to enhance their English language competencies so that they can confidently engage themselves in their academic studies in the discipline of English.

Credits 02 NGPA-Compulsory

Leadership Training **LS1052**

This module aims to develop the leadership skills and personnel qualities which are required to perform the duties of any position related in the IT and IS fields.

Credits 02 NGPA-Compulsory

3.3.1.2 Semester 02

Object Oriented Designing **IT12012**

This module covers Object Orient theories and concepts in programming which is a widely used programming paradigm in the Software Development Industry.

Credits 02 GPA-Compulsory

Object Oriented Programming **IT12023**

This module covers Object Orient theories and concepts in programming which is a widely used programming paradigm in the Software Development Industry.

Credits 03 GPA-Compulsory

Fundamentals of DBMS **IT12033**

This module provides explanations of theory and design, broad coverage of models and real systems, and an up–to–date introduction to modern database technologies result in a leading introduction to database systems.

Credits 03 GPA-Compulsory

Computer Systems Architecture **IT12042**

This module aims to explain the building blocks of a computer system and its design architecture to explain the inner workings of a computer system by exploring its theoretical and practical aspects.

Credits 02 GPA-Compulsory

IoT applications and Design **IT12052**

In this module, students will gain an understanding about the concept of IoT and its related components and use this knowledge to design their own IoT solutions.

Credits 02 NGPA-Compulsory

Computer Network Systems I **IT12062**

This module aims students to learn essential networking concepts that will enable them to develop the necessary skills to plan and implement small to medium networks across a range of applications.

Credits 02 GPA-Compulsory

Web Technologies **IT12072**

This module introduces World Wide Web Consortium (W3C) standard markup languages and services of the Internet which will allow the students to create hand–coded web sites.

Credits 02 GPA-Compulsory

Basic Probability and Statistics **CM12062**

The aim of this module is to introduce the mathematical concepts of probability and statistics to solve real world scenarios while working with data in their varied academic disciplines.

Credits 02 GPA-Compulsory

Presentation Skills for ICT **DL2192**

This module intends to instil the skills of audience–centric presentation skills and enhance the professional writing skills of the students. The students will also be able to achieve skills pertain to research writing and academic report writing in the long run, with an impactful content delivery.

Credits 02 NGPA-Compulsory

3.3.2 BSc (Hons) in IT and BSc (Hons) in IS (Level 2)

The following table gives an overall summary of the course units entitled for the level two of the BSc (Hons) in Information Technology and BSc (Hons) in Information Systems Degree Programs. The respective course units have been outlined in detail beneath the table.

Table 6 Level two IT/IS course unites

Level 2								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 3								
IT21013	Rapid Application Development	C	3	0	0	17	2	6
IT21022	System Analysis and Design	C	2	0	0			
IT21033	UX and UI Engineering	C	3	0	0			
IT21043	Advanced Database Management Systems	C	3	0	0			
IT21052	Computer Network Systems II	C	2	0	0			
IT22072	Industry based Software Engineering Project (To be continued with semester IV)	C	0	0	0			
CM21112	Mathematics for IT II	C	2	0	0			
MF2212	Human Resource Management	C	2	0	0			
DL24202	Writing and Speaking Skills	C	0	2	0			
MS3032	Strategic Defence Studies	M	0	0	2			
MS3044	Military Studies III	M	0	0	4			
Total for Semester 3						**17**	**2**	**6**
Semester 4								
IT22013	Data Structures and Algorithms	C	3	0	0	15	2	4
IT22022	Software Engineering	C	2	0	0			
IT22032	Operating Systems	C	2	0	0			
IT22042	Project Management	C	2	0	0			
IT22052	Research Methodology	C	2	0	0			
IT22062	Industry based Software Engineering Project	C	2	0	0			
CM22122	Statistical Distributions and Inference	C	2	0	0			
DL29302	Research Writing Skills	C	0	2	0			
MS4064	Military Studies IV	M	0	0	4			
Total for Semester 4						**15**	**2**	**4**
Total for Level 2						**32**	**4**	**10**

3.3.2.1 Semester 03

Rapid Application Development **IT21013**

This module teaches the theory behind the Rapid Application Development (RAD) concepts and programming knowledge on using standard industry used RAD software tools and techniques.

Credits 03 GPA-Compulsory

System Analysis and Design **IT21022**

This course offers an in-depth introduction to Systems Analysis and Design (SAD), emphasizing both Structured Systems Development Methodology (SSDM) and Object-Oriented Development Methodology (OODM). Students will gain the skills to effectively analyze and document requirements, differentiate between SSDM and OODM techniques, and model processes using Data Flow Diagrams (DFDs), Entity-Relationship Diagrams (ERDs), and UML diagrams. The course provides the knowledge to develop a comprehensive Software Requirements Specification (SRS) and design user-centered systems that prioritize usability and functionality. Additionally, it addresses the implications of sustainability, cybersecurity, and artificial intelligence (AI) in system design. By the end of the course, students will be equipped with the essential skills needed for modern software development.

Credits 02 GPA-Compulsory

UX and UI Engineering **IT21033**

This module teaches an integrative and cross–disciplinary approach to bring together a wide variety of topics together to the problem of developing quality user interaction designs to introduce the field of Human–Computer Interaction (HCI) and its practices.

Credits 03 GPA-Compulsory

Advanced Database Management Systems **IT21043**

This module aims at furthering database systems concepts through adding complexity and a more hands–on approach with real world problems and scenarios.

Credits 03 GPA-Compulsory

Computer Network Systems II **IT21052**

This module is to assist the students in developing the skills necessary to plan and implement small networks across a range of applications. Also, this module aims to provide knowledge on IP and sub–netting calculations, which is important in any networking industry.

Credits 02 GPA-Compulsory

Industry Based Software Engineering Project **IT22072**
(To be continued with semester IV)

This module will allow the students to put into practice all the theories and concepts they have learned up to now by solving a real–life IT related problem by working as a team and under supervision.

Credits 02 GPA-Compulsory

Mathematics for IT- II **CM21112**

The aim of this module is to provide knowledge in advanced mathematical concepts such as calculus and create logical thinking useful in solving problem.

Credits 02 GPA-Compulsory

Human Resource Management **MF2212**

This module attempts to address the core areas of inspiring human resources at work. Special attention is given to recognizing the dynamic relationship between strategy, people, technology, processes, and contemporary management styles in Human Resource Management that drive organizations. Key topic areas include Human Resource Planning, staffing, Learning & Development, career management, performance management, reward management, Disciplinary Management, and Grievance Handling.

Credits 02 GPA-Compulsory

Writing and Speaking Skills **DL24202**

This module will provide students to enhance their English language (writing and speaking) competencies so that they can confidently engage in their academic studies in the medium of English in the present-day working environments.

Credits 02 NGPA-Compulsory

3.3.2.2 Semester 04

Data Structures and Algorithms **IT22013**

This module is to provide the knowledge in various data structures, their computer representations, and associated algorithms and to investigate the efficiency of an algorithm.

Credits 03 GPA-Compulsory

Software Engineering **IT22022**

This course equips students with the practical skills required to transform the specifications developed in Systems Analysis and Design (SAD) into a working software system. Focusing on Object-Oriented Development Methodology (OODM) and its tools, the course teaches software design implementation, testing, and evaluation, ensuring quality, security, and sustainability. Students will engage in hands-on coding practices, learn software modeling techniques, and utilize testing frameworks, culminating in a fully developed software application.

Credits 02 GPA-Compulsory

Operating Systems **IT22032**

This module aims at introducing the operating system to students and develop thorough understanding about its main services and strategies. Through this module, students are exposure to explore how different processes of computer have designed following the natural processes.

Credits 02 GPA-Compulsory

Project Management **IT22042**

This module aims to introduce the principles, tools, techniques, and best practices of software project management that is required in the field of Information Technology and software development.

Credits 02 GPA-Compulsory

Research Methodology **IT22052**

The module aims to teach students the Identify the concepts, tools, techniques, and other required skills to carry out a research based on scientific method and further investigate and find solutions to real world research problems.

Credits 02 GPA-Compulsory

Industry Based Software Engineering Project **IT22062**

This module will allow the students to put into practice all the theories and concepts they have learned up to now by solving a real–life IT related problem by working as a team and under supervision.

Credits 02 GPA-Compulsory

Statistical Distributions and Inference **CM22122**

The aim of this module is to provide the knowledge about probability distributions, estimation, hypothesis testing, linear regression and to apply those statistical techniques in real world problems using statistical software.

Credits 02 GPA-Compulsory

Research Writing Skills **DL29302**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 02 NGPA-Compulsory

3.3.3 BSc (Hons) in IT (Level 3)

The following table gives an overall summary of the course units entitled for the level three of the BSc (Hons) in Information Technology Degree Program. The respective course units have been outlined in detail beneath the table.

Table 7 Level three IT course unites

Level 3								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 5								
IT31013	Advanced Web Technologies	C	3	0	0	19	1	0
IT31023	Enterprise Application Development	C	3	0	0			
IT31032	Advanced Multimedia Technologies	C	2	0	0			
IT31042	Mobile Computing	C	2	0	0			
IT31052	Advanced Computer Network Systems I	C	2	0	0			
IT31062	Information and Data Security	C	2	0	0			
IT31072	Computer Ethics and IT Law	C	2	0	0			
IT31081	Career Development Planning	C	0	1	0			
IT31093	Essentials of Artificial Intelligence	C	3	0	0			
Total for Semester 5						**19**	**1**	**0**
Semester 6								
IT32012	Distributed Systems	C	2	0	0	17	2	0
IT32022	Software Quality Assurance	C	2	0	0			
IT32033	Cyber Security	C	3	0	0			
IT32043	Cloud Computing and Virtualization	C	3	0	0			
IT32052	Enterprise Resource Planning Systems	C	0	2	0			
IT32062	Independent Research Study	C	2	0	0			
IT32073	Machine Learning	C	3	0	0			
IT32082	Geoinformatics	E	2	0	0			
IT32092	Location Based Services	E	2	0	0			
IS32042	Entrepreneurship and Innovation	E	2	0	0			
Total for Semester 6						**17**	**2**	**0**
Total for Level 3						**36**	**3**	**0**

3.3.3.1 Semester 05

Advanced Web Technologies **IT31013**

This module is to provide students with an in-depth understanding of advanced web technologies including modern frameworks, XML, and enabling them to design, develop, and deploy scalable and efficient web applications.

Credits 03 GPA-Compulsory

Enterprise Application Development **IT31023**

This module introduces the principles, software architectures, and technologies required for designing and developing enterprise-level applications using industry-standard tools and frameworks.

Credits 03 GPA-Compulsory

Advanced Multimedia Technologies **IT31032**

This module introduces students to the latest video/audio manipulation software and applications which will allow them to work with a variety of advanced concepts and theories association with multimedia.

Credits 02 GPA-Compulsory

Mobile Computing **IT31042**

This module introduces the concept of mobile computing with a strong emphasis on application development for the Android operating system which will enable the students to complete a major project with the goal of releasing an app on the Android Market place.

Credits 02 GPA-Compulsory

Advanced Computer Network Systems I **IT31052**

This module will allow students how configure various network related components and implement different types of networks according to given user requirement.

Credits 02 GPA-Compulsory

Information and Data Security **IT31062**

This module aims to introduce students to the techniques used when implementing secure information and data which will allow them a proper understanding of common.

Credits 02 GPA-Compulsory

Computer Ethics and IT Law **IT31072**

This module offers extensive coverage of the legal, ethical, and social implications when dealing with technology in the current society and modern–day business environment.

Credits 02 GPA-Compulsory

Career Development Planning **IT31081**

This module focuses on strategies, tools, and techniques for personal and professional growth within the field of Information Technology. The aim of this course is to equip students with the knowledge and skills to set career goals, develop actionable plans, and navigate their professional journeys effectively.

Credits 01 NGPA-Compulsory

Essentials of Artificial Intelligence **IT31093**

This module aims to introduces the fundamental concepts and theories associated with the discipline of artificial intelligence and provides the ability to analyse, understand, and create intelligent systems.

Credits 03 GPA-Compulsory

3.3.3.2 Semester 06

Distributed Systems **IT32012**

This module explains how to develop software components specially to work in distributed and heterogeneous environments as well as the software development based on such distributed software components to support modern industrial requirements.

Credits 02 GPA-Compulsory

Software Quality Assurance **IT32022**

This module is to provide the awareness of the theories and concepts of software quality assurance thereby enabling improved quality software which is a much–needed attribute in the software development life cycle.

Credits 02 GPA-Compulsory

Cyber Security **IT32033**

This module introduces the various aspects of cyber security which is an essential component in safeguarding one's electronic devices, systems, data, and other necessary components in the modern–day world.

Credits 03 GPA-Compulsory

Cloud Computing & Virtualization **IT32043**

This module investigates cloud computing models, techniques, and architectures which enables information, software, and other shared resources to be provisioned over the network as services in an on–demand manner.

Credits 03 GPA-Compulsory

Enterprise Resource Planning Systems **IT32052**

This module takes a generic approach to enterprise resource planning systems and their interrelationships, covering all functional areas of this new type of management challenge. It discusses the re–design of business processes, changes in organizational structure, and effective management strategies that will help assure competitiveness, responsiveness, productivity, and impact for many organizations.

Credits 02 NGPA-Compulsory

Independent Research Study **IT32062**

This module objective is students to further study and practice all the theories and concepts that they have studied up to now, which will enable them to prepare for their final year project by enabling them to conduct an independent study on various research areas.

Credits 02 GPA-Compulsory

Machine Learning **IT32073**

This module explores the core principles, algorithms, and applications of machine learning within the field of Information Technology. The aim of this course is to equip students with the knowledge and skills to develop, train, and evaluate machine learning models, enabling data-driven decision-making and innovative problem-solving.

Credits 03 GPA-Compulsory

Geoinformatics **IT32082**

This module is to provide the fundamental principles of Remote Sensing, Geographic Information Systems and GIS Programming to understand the difference between temporal data analysis over spatial data analysis and develop a spatial decision–making model.

Credits 02 GPA –Elective

Location Based Services **IT32092**

The course introduces Geoinformatics and Location-Based Services (LBS) in Intelligent Transport Systems (ITS), covering data models, spatial analysis, and mobile applications. It also addresses privacy, security, and future trends while employing Problem-Based Learning (PBL) exercises for real-world application.

Credits 02 GPA –Elective

Entrepreneurship and Innovation **IS32042**

The purpose of this module is to provide students with theoretical and practical knowledge in managing a Small and Medium Scale business (SME) in a developing country context along with developing students' knowledge, skills, and attitudes required for making them entrepreneurs. Students will be facilitated in functional areas of management focusing on SMEs, building a business plan, putting the business plan to work, and supporting facilities for entrepreneurs in this module. It will further include areas such as understanding the entrepreneurial mindset, creativity and innovation, and skills of entrepreneurs. In fact, the successful completion of this module would enable the undergraduates to develop their personality to plan, start, and manage new ventures instead of waiting for jobs.

Credits 02 GPA –Elective

3.3.4 BSc (Hons) in IT (Level 4)

The following table gives an overall summary of the course units entitled for the level four of the BSc (Hons) in Information Technology Degree Program. The respective course units have been outlined in detail beneath the table.

Table 8 Level four IT course unites

Level 4								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 7								
IT41013	Data Mining and Data Warehousing	C	3	0	0	15	0	0
IS41022	Data Analytics	C	2	0	0			
IT41032	Advanced Computer Network Systems II	C	2	0	0			
IT41043	Database Administration	C	3	0	0			
IT41051	Deployment Engineering	C	1	0	0			
IT41062	Semantic Web and Ontology	E	2	0	0			
IT41072	Digital Image Processing	E	2	0	0			
IT41082	Emerging Technologies in ICT	E	2	0	0			
IT41092	Interactive Media and Game Development	E	2	0	0			
IT41102	Blockchain Technologies	E	2	0	0			
IT41112	Social Aspects and Professional Practices	E	2	0	0			
IT41122	Natural Language Processing	E	2	0	0			
IT42999	Individual Research Project (To be continued to semester 08)	C	2	0	0			
Total for Semester 7						**15**	**0**	**0**
Semester 8								
IT42986	Industrial Training	C	-	6	-	7	6	0
IT42999	Individual Research Project	C	7	-	-			
Total for Semester 8						**7**	**6**	**0**
Total for Level 4						**22**	**6**	**0**

3.3.4.1 Semester 07

Data Mining and Data Warehousing **IT41013**

This module covers the use of data mining techniques covering the high–volume data processing mechanisms by building data warehouse schemas, while introducing the Online analytical processing query retrieval techniques.

Credits 03 GPA-Compulsory

Data Analytics **IS41022**

This module focuses on the principles, methodologies, and tools used in analyzing and interpreting data within the field of Information Technology. The aim of this course is to provide students with the skills and knowledge to extract meaningful insights from data, enabling informed decision-making and strategic planning.

Credits 02 GPA-Compulsory

Advanced Computer Network Systems II **IT41032**

This module delves into the advanced concepts, architectures, and technologies of computer networking within the field of Information Technology. The aim of this course is to equip students with in-depth knowledge and practical skills to design, analyze, and manage complex network systems effectively.

Credits 02 GPA-Compulsory

Database Administration **IT41043**

This module explores the physical and logical components of a database system. It also looks at database administration tasks for development, testing and production environments. The module will explain memory management, I/O strategy, performance diagnostics and management of operating system resources.

Credits 03 GPA-Compulsory

Deployment Engineering **IT41051**

This module provides a comprehensive introduction to DevOps Engineering, covering key concepts, tools, and practices that enable continuous integration, continuous delivery, and automation in software development and IT operations. The module will equip students with the skills necessary to design, implement, and manage robust, scalable, and automated infrastructure using industry-standard DevOps tools and methodologies.

Credits 01 GPA-Compulsory

Semantic Web and Ontology **IT41062**

This module aims to provide the knowledge on the rationale behind Semantic web. They should be able to model and query domain knowledge as ontologies defined using standards such as RDF and OWL. Students should be able to apply the principles of ontological engineering to modelling exercises.

Credits 02 GPA-Elective

Digital Image Processing **IT41072**

This module examines the principles, techniques, and applications of digital image processing within the field of Information Technology. The aim of this course is to provide students with a thorough understanding of image processing methods, equipping them to analyze, enhance, and manipulate visual data effectively.

Credits 02 GPA-Elective

Emerging Technologies in ICT **IT41082**

This module explores the latest advancements, trends, and innovations in Information and Communication Technology (ICT). The aim of this course is to equip students with knowledge of cutting-edge technologies, enabling them to analyze their potential applications and impacts on society and the ICT industry critically.

Credits 02 GPA-Elective

Interactive Media and Game Development **IT41092**

The aim of this module is to provide students with a comprehensive understanding of interactive media and game development, covering both theoretical concepts and practical skills. Students will explore the principles and techniques behind the creation of interactive digital content and gain hands-on experience in designing and developing engaging games.

Credits 02 GPA-Elective

Block Chain Technologies **IT41102**

This module delves into the foundational principles, applications, and implications of blockchain within the field of Information Technology. The aim of this course is to provide students with a comprehensive understanding of blockchain technologies, enabling them to evaluate their technical, societal, and economic impacts critically.

Credits 02 GPA-Elective

Social Aspects and Professional Practices **IT41112**

This module explores the intersection of technology, society, and professional ethics within the field of Information Technology. The aim of this course is to equip students with the knowledge and skills to critically analyze the social and ethical dimensions of IT.

Credits 02 GPA-Elective

Natural Language Processing **IT41122**

This module introduces key topics in theoretical linguistics with hands-on practical experience of developing applications to process texts and access linguistic resources.

Credits 02 GPA-Elective

Individual Research Project (Evaluate by semester 8) **IT42999**

The aim of this module is to provide the undergraduates an exposure to research undertaken individually and to achieve a specific objective within a fixed time and to achieve it independently. Additionally, this module allows undergraduates to conduct research in Information Systems, by applying techniques learned throughout the degree programme, including the technical skills of analysis, design and implementation.

Credits 02 GPA-Compulsory

3.3.4.2 Semester 08

Industrial Training **IT42986**

This module exposes the students to the industry to learn from the industry, practice work ethics, adhere to professional conduct, learn about organization cultures & its processes, mater self–evaluation and practice to solve industrial problem using the gained knowledge.

Credits 06 NGPA -Compulsory

Individual Research Project **IT42999**

The aim of this module is to provide the undergraduates an exposure to research undertaken individually and to achieve a specific objective within a fixed time and to achieve it independently. Additionally, this module allows undergraduates to conduct research in Information Systems, by applying techniques learned throughout the degree programme, including the technical skills of analysis, design and implementation.

Credits 07 GPA-Compulsory

The BSc (Hons) in Information Technology degree programme contains 122 GPA credits from core course units, 19 NGPA credits and 18 MGPA credits. The distribution of the academic credits in BSc in IT degree program are illustrated in the table below.

Table 9 GPA Summary

Semester	GPA Credits	NGPA Credits	MGPA Credits
Semester 1	14	4	4
Semester 2	18	2	4
Semester 3	17	2	6
Semester 4	15	2	4
Semester 5	19	1	0
Semester 6	17	2	0
Semester 7	15	0	0
Semester 8	7	6	0
Total	**122**	**19**	**18**

3.3.5 BSc (Hons) in IS (Level 3)

The following table gives an overall summary of the course units entitled for the level three of the BSc (Hons) in Information Systems Degree Program. The respective course units have been outlined in detail beneath the table.

Table 10 Level three IS course unites

Level 3								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 5								
IT31013	Advanced Web Technologies	C	3	0	0	20	1	0
IS31013	Management Information Systems	C	3	0	0			
IS31023	Accounting and Financial Management	C	3	0	0			
IS31032	Principles of Economics	C	2	0	0			
IT31062	Information and Data Security	C	2	0	0			
IT31072	Computer Ethics and IT Law	C	2	0	0			
IT31042	Mobile Computing	C	2	0	0			
IT31093	Essentials of Artificial Intelligence	C	3	0	0			
IT31081	Career Development Planning	C	0	1	0			
Total for Semester 5						**20**	**1**	**0**
Semester 6								
IS32013	E-commerce and Digital Marketing	C	3	0	0	18	0	0
IS32022	Organizational Behaviour	C	2	0	0			
IS32032	Knowledge Management	C	2	0	0			
CM31013	Operational Research	C	3	0	0			
IT32022	Software Quality Assurance	C	2	0	0			
IT32052	Enterprise Resource Planning Systems	C	2	0	0			
IT32062	Independent Research Study	C	2	0	0			
IT32082	Geoinformatics	E	2	0	0			
IT32092	Location Based Services	E	2	0	0			
IS32042	Entrepreneurship and Innovation	E	2	0	0			
Total for Semester 6						**18**	**0**	**0**
Total for Level 3						**38**	**1**	**0**

3.3.5.1 Semester 05

Advanced Web Technologies **IT31013**

This module is to provide students with an in-depth understanding of advanced web technologies including modern frameworks, XML, and enabling them to design, develop, and deploy scalable and efficient web applications.

Credits 03 GPA-Compulsory

Management Information Systems **IS31013**

This module provides a look at how the present–day organizations to better–utilize information technologies and systems to achieve corporate objectives and goals to get a competitive advantage over others.

Credits 03 GPA-Compulsory

Accounting and Financial Management **IS31023**

This module covers the system of the financial recording system and the preparation of financial statements and reports that are required by the relevant internal and external stakeholders so that they have a better understanding of the cost behaviour and decision–making aspects of management accounting. The aim is to provide the technologist with a knowledge of the accounting background of a business to participate in management functions.

Credits 03 GPA-Compulsory

Principles of Economics **IS31032**

This module covers the macro and micro economic factors which influence the business environment and making of economic choices. It further exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields.

Credits 02 GPA-Compulsory

Information and Data Security **IT31062**

This module aims to introduce students to the techniques used when implementing secure information and data which will allow them a proper understanding of common threats, disaster recovery plantings and defending networked systems issues.

Credits 02 GPA-Compulsory

Computer Ethics & IT Law **IT31072**

This module offers extensive coverage of the legal, ethical, and social implications when dealing with technology in the current society and modern–day business environment.

Credits 02 GPA-Compulsory

Mobile Computing **IT31042**

This module introduces the concept of mobile computing with a strong emphasis on application development for the Android operating system which will enable the students to complete a major project with the goal of releasing an app on the Android Market place.

Credits 02 GPA-Compulsory

Essentials of Artificial Intelligence **IT31093**

This module aims to introduces the fundamental concepts and theories associated with the discipline of artificial intelligence and provides the ability to analyse, understand, and create intelligent systems.

Credits 03 GPA-Compulsory

Career Development Planning **IT31081**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 01 NGPA-Compulsory

3.3.5.2 Semester 06

E Commerce & Digital Marketing **IS32013**

This module aims to provide basic knowledge and understanding about the nature and the scope of E-commerce and Digital Marketing with special reference to the practical applications in the Sri Lankan context.

Credits 03 GPA-Compulsory

Organizational Behavior **IS32022**

This module aims to develop an understanding of the importance of giving due recognition to the behavior of people within the organization and their motivational process by examining the behavioral styles of individuals, groups and organizations.

Credits 02 GPA-Compulsory

Knowledge Management **IS32032**

This module will allow the student to study the theory and practices associated with Knowledge Management which will allow them to critically evaluates the nature, computer representation, access, and utilization of knowledge versus information within a human context.

Credits 02 GPA-Compulsory

Operational Research **CM31013**

The aim of this module is to introduce the concepts and techniques of operations research and to make students apply those techniques to solve real world problems.

Credits 03 GPA-Compulsory

Software Quality Assurance **IT32022**

This module is to provide the awareness of the theories and concepts of software quality assurance thereby enabling improved quality software which is a much–needed attribute in the software development life cycle.

Credits 02 GPA-Compulsory

Enterprise Resource Planning Systems **IT32052**

This module is to provide the fundamental principles of Remote Sensing, Geographic Information Systems and GIS Programming to understand the difference between temporal data analysis over spatial data analysis and develop a spatial decision–making model.

Credits 02 GPA-Compulsory

Independent Research Study **IT32062**

This module objective is students to further study and practice all the theories and concepts that they have studied up to now, which will enable them to prepare for their final year project by enabling them to conduct an independent study on various research areas.

Credits 02 GPA-Compulsory

Geoinformatics **IT32082**

This module is to provide the fundamental principles of Remote Sensing, Geographic Information Systems and GIS Programming to understand the difference between temporal data analysis over spatial data analysis and develop a spatial decision–making model.

Credits 02 GPA-Elective

Location Based Services **IT32092**

The course introduces Geoinformatics and Location-Based Services (LBS) in Intelligent Transport Systems (ITS), covering data models, spatial analysis, and mobile applications. It also addresses privacy, security, and future trends while employing Problem-Based Learning (PBL) exercises for real-world application.

Credits 02 GPA-Elective

Entrepreneurship and Innovation **IS32042**

The purpose of this module is to provide students with theoretical and practical knowledge in managing a Small and Medium Scale business (SME) in a developing country context along with developing students' knowledge, skills, and attitudes required for making them entrepreneurs.

Credits 02 GPA –Elective

BSc (Hons) in IS (Level 4)

The following table gives an overall summary of the course units entitled for level four of the BSc (Hons) in Information Systems Degree Program. The respective course units have been outlined in detail beneath the table.

Level 4								
Module Code	Module Name	Category	Credits			Norm		
			GPA	NGPA	MGPA	GPA	NGPA	MGPA
Semester 7								
IS41012	Enterprise Architecture	C	2	-	-			
IS41022	Data Analytics	C	2	-	-			
IS41033	Information Systems Auditing and Control	C	3	-	-			
IS41042	Business Process Reengineering	C	2	-	-			
IS41052	Operations and Supply Chain Management	C	2	-	-	18	0	0
IS41062	Strategic IT Management	C	2	0	0			
IT41051	Deployment Engineering	C	1	0	0			
IT41072	Digital Image Processing	E	2	-	-			
IT41082	Emerging Technologies in ICT	E	2	-	-			
IT41102	Blockchain Technologies	E	2	-	-			
IT41112	Social Aspects and Professional Practices	E	2	-	-			
IT41122	Natural Language Processing	E	2	0	0			
IS42999	Individual Research Project (To be continued to semester 08)	C	2	0	0			
Total for Semester 7						**18**	**0**	**0**
Semester 8								
IS42986	Industrial Training	C	-	6	-			
IS42999	Individual Research Project	C	7	-	-	7	6	0
Total for Semester 8						**7**	**6**	**0**
Total for Level 4						**25**	**6**	**0**

3.3.5.3 Semester 07

Enterprise Architecture **IS41012**

This module introduces enterprise analysis, design, planning, and implementation for the successful development and execution of strategy. Enterprise Architecture applies architecture principles and practices to guide organizations through the business, information, process, and technology changes necessary to execute their strategy.

Credits 02 GPA-Compulsory

Data Analytics **IS41022**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 02 GPA-Compulsory

Information Systems Auditing and Control **IS41033**

This module introduces the concepts of IS auditing that allows users to audit and investigate their respective systems which enables them to increase the overall efficiency and effectiveness of their operations.

Credits 03 GPA-Compulsory

Business Process Re-engineering **IS41042**

This module covers learning about modeling and optimizing of business processes which will allow the students to get a correct understanding of Business Process Re-engineering. Furthermore, they will be able to identify the impact of BPR, learn how the overall business environment influences BPR and BPR practices for simple processes.

Credits 02 GPA-Compulsory

Operations and Supply Chain Management **IS41052**

This module emphasizes the concepts and practices of managing production and operations in contemporary organizations by providing an introduction to the field of operations management. Further, this module objective is to understand the effectiveness of managing the flow of supplies from the back end of the supply chain to the front end of the supply chain.

Credits 02 GPA-Compulsory

Strategic IT Management **IS41062**

This module aims at cultivating the strategic perspective among the students in managing organizations for long term survival and growth by introducing a suitable strategic orientation.

Credits 02 GPA-Compulsory

Deployment Engineering **IT41051**

This module provides a comprehensive introduction to DevOps Engineering, covering key concepts, tools, and practices that enable continuous integration, continuous delivery, and automation in software development and IT operations. The module will equip students with the skills necessary to design, implement, and manage robust, scalable, and automated infrastructure using industry-standard DevOps tools and methodologies.

Credits 01 GPA-Compulsory

Digital Image Processing **IT41072**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 02 GPA-Elective

Emerging Technologies in ICT **IT41082**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 02 GPA-Elective

Block Chain Technologies **IT41102**

By completing this module, it will provide the students with the knowledge and skills necessary for conducting and documenting research in an academic and professional environment.

Credits 02 GPA-Elective

Social Aspects and Professional Practices **IT 41112**

This module explores the intersection of technology, society, and professional ethics within the field of Information Technology. The aim of this course is to equip students with the knowledge and skills to critically analyze the social and ethical dimensions of IT.

Credits 02 GPA-Elective

Natural Language Processing **IT41122**

This module introduces key topics in theoretical linguistics with hands-on practical experience of developing applications to process texts and access linguistic resources.

Credits 02 GPA-Elective

Individual Research Project (Evaluate by semester 8) **IS42999**

The aim of this module is to provide the undergraduates an exposure to research undertaken individually and to achieve a specific objective within a fixed time and to achieve it independently. Additionally, this module allows undergraduates to conduct research in Information Systems, by applying techniques learned throughout the degree programme, including the technical skills of analysis, design, and implementation.

Credits 02 GPA-Compulsory

3.3.5.4 Semester 08

Industrial Training **IS42986**

This module exposes the students to the industry to learn from the industry, practice work ethics, adhere to professional conduct, learn about organization cultures & its processes, mater self–evaluation and practice to solve industrial problem using the gained knowledge.

Credits 06 NGPA -Compulsory

Individual Research Project **IS42999**

The aim of this module is to provide the undergraduates an exposure to research undertaken individually and to achieve a specific objective within a fixed time and to achieve it independently. Additionally, this module allows undergraduates to conduct research in Information Systems, by applying techniques learned throughout the degree programme, including the technical skills of analysis, design, and implementation.

Credits 07 GPA-Compulsory

The BSc (Hons) in Information Systems degree programme contains 127 GPA credits from core course units, 17 NGPA credits and 18 MGPA credits. The distribution of the academic credits in BSc in IT degree program are illustrated in the table below.

Table 11 GPA Summary

Semester	GPA Credits	NGPA Credits	MGPA Credits
Semester 1	14	4	4
Semester 2	18	2	4
Semester 3	17	2	6
Semester 4	15	2	4
Semester 5	20	1	0
Semester 6	18	0	0
Semester 7	18	0	0
Semester 8	7	6	0
	127	17	18

4 Examinations

4.1 Examination Criteria

Each course of the program is assessed independently. The assessment has two components: Continuous Assessment (CA) and End Semester Written Examination (WE). The CA component is generally 30% and the WE component is 70% (The weightage of a component might change based on the nature of the course). The relevant percentages of assessment for a course are incorporated into the curriculum. In order to complete a course, the student has to earn a minimum of 35% of the allocated marks for each component and a total pass mark of 45% **"C"** grade.

The CA component includes laboratory work, tutorials, take home assignments, in class tests, case studies, quizzes, presentations, field visits and mid semester examinations. These are conducted during the semester.

4.2 Maximum Allowed Duration of Study

Table 12 Maximum Allowed Durations

Degree Program	**Max. No. of years in which a degree can be completed**
Computer Science	8
Software Engineering	8
Computer Engineering	8
Information Technology	8
Information Systems	8
Data Science and Business Analytics	8

The BoS (Senate)/ BOM (Council) on the recommendation of the Faculty Board of Faculty of Computing may grant permission to extend the duration of study beyond the maximum period allowed on medical grounds or under exceptional circumstances other than medical grounds on a case-by-case basis.

4.3 Attendance

The eligibility requirement to sit an End Semester examination paper in a Course Unit, relevant to the field of study in a particular semester, as a first-time candidate, is an attendance record of not less than 80%. However, an attendance record of not less than 70% may be considered on valid medical grounds and/or due to any other valid reason by the Faculty Board for the purpose of calculating the required attendance.

4.4 Grading System

There are two categories of Academic Credits: GPA (Grade Point Average) and NGPA (Non-Grade Point Average). Each course in the curriculum is assigned with a credit value and its category. Only the GPA credits are considered when calculating SGPA (Semester Grade Point Average), YGPA (Year Grade Point Average) and FGPA (Final Grade Point Average).

Military courses offered to the military students are assigned with a credit value of a third category, called MGPA (Military Grade Point Average). Both GPA and MGPA credits are considered when calculating the SGPA, YGPA and FGPA of military students. A prescribed minimum MGPA credits, over and above the Academic Credits, must be earned by a military student to qualify for graduation. The following table describes the grade point values (GPV) dedicated for each grade.

Table 13: Details of Grades and GPVs

Final Marks	Grade	GPV
85 – 100	A+	4.20
75 – 84	A	4.00
70 – 74	A-	3.70
65 – 69	B+	3.30
60 – 64	B	3.00
55 – 59	B-	2.70
50 – 54	C+	2.30
45 – 49	C	2.00
40 – 44	C-	1.70
35 – 39	D+	1.30
ES <35	Ie	0.00
CA < 35	Ia	0.00
PBCA <35%	Ia	0.00
Both ES & CA < 35	Ib	0.00
Not eligible	Ne	0.00
Absent	Ab	0.00
Excused	Ex	

Ab = Absent for a course unit Ex = Excused on a valid reason

Pass Marks and Grades

The details of the grades and Grade Point Value (GPV) corresponding range of marks are described in the above table. Grading for MGPA courses are decided by the senate,

considering the raw marks submitted by Military Training Academies and the pass mark of the respective Academies of the Army, Navy and Air Force. The semester Grade Point Average (SGPA) is calculated from GPV earned for individual courses in a semester as per the following formula,

$$\text{SGPA} = \frac{\sum[\text{GradePoint scored for Course Unit} \times \text{Credit value of Course Unit}]}{\text{Cumulative credit value of all GPA Course Units of the Semester}}$$

For further information of YGPA and FGPA, refer the section 3.7 of the Faculty of Computing By-Laws.

4.5 Criteria for Completing a Semester

4.5.1 Passing a Semester

A student shall satisfy the following minimum requirements to successfully complete a semester:

a. obtain a "C" grade or above for all Course Units, other than as specified in Faculty of Computing By-Laws. b,
b. obtain not more than one "D+" or "C-"grade for a GPA Course Unit per semester subject.
c. have no Failure grades or "Ex" for any of the course units in the relevant semester.

4.5.2 Re-sitting a Course Unit

a. Re-sitting a Course Unit for which an Excuse has been granted would be on the same basis as a normal first attempt candidate.
b. A charge shall be levied by the registry as approved by the BOM, for re-sitting a course unit.
c. All the Course Units having grade "Ie" shall be completed by re-sitting the ES component.
d. All the Course Units having grade "Ia" shall be completed by re-sitting the CA/PBCA component.
e. All the Course Units having grade "Ib" shall be completed by re-sitting the both ES and CA/PBCA component.
f. The earned CA mark in the first attempt would be carried over when re-sitting of the ES component.

g. All NGPA Course Units having a grade less than 'C' shall have to be repeated to obtain a pass grade.

h. All GPA Course Units having a grade less than 'C', except those "weak passes" permitted under section (Faculty of Computing By-Laws), shall be repeated to obtain a pass grade.

i. Any NGPA Course Unit having a grade 'C 'or higher may be repeated if desirous of upgrading the given grade.

j. Any GPA Course Unit with a permitted "Weak Pass" may be repeated if desirous of upgrading the given grade up to a maximum of grade 'C'.

4.5.3 Supplementary Examinations

a. Supplementary Examinations will not be held following the Semesters 1 to 6.
b. To allow students to graduate without delay, a supplementary examination may be held at end of the 7th and 8th Semester to permit students to complete all incomplete Course Units in 7th and 8th Semesters.

5 Discontinuing A Student

5.1 Discontinuation from the Degree

A student shall be deemed to have discontinued a degree programme at the University under any of the following conditions.

a. When a student has been unable to complete the degree programme within the maximum period of sixteen semesters.
b. When a student has been determined to be unfit to continue his/her studies at the University by a competent medical board recommended by the University on account of an illness.
c. Following punishment for an examination offence in terms of the provisions of the "Bylaws pertaining to the conduct of examinations" approved by the BOM.
d. When a student has been absent for two continuous semesters without informing the faculty and getting its acceptance.

5.2 Poor Performance of Students

a. Any student will be allowed to progress through the semester whilst being in the original batch whilst completing low performed academic course units through subsequent examinations during the maximum duration specified in clause (Faculty of Computing By-Laws.

b. A warning shall be issued to students who have failed to obtain a minimum SGPA of 2.0 at any stage of progression of the degree.

5.3 Relegation

Procedure for relegation of officer-cadets for poor performance shall be according to the FDSS By-Law.

6 Awards and Trophy

6.1.1 Criteria for Awarding Degrees

Following criteria are considered for awarding degrees,

a) Following the programme in the specified field of study for the minimum stipulated period of time;
b) Satisfactory completion of the academic requirements of all semesters of the Degree Programme;
c) As stipulated in the respective Degree Programme Curriculum obtaining a minimum of GPA credits and a minimum of NGPA credits
d) Fulfilment of the criteria for completing the examinations within the maximum stipulated time period;
e) Earning a GPA of not less than 2.00 for the entire degree programme;
f) Not having more than 1 D+ or C- grades per semester in the entire programme.

A student shall be entitled to the award of the Hons Degree unless he/she has completed the above requirements (a – f) within four academic years.

6.1.2 Criteria for Awarding Classes

Awarding of classes shall be determined at the completion of all requirements for graduation within the minimum time period stipulated for the degree programme, except upon approvals granted by the BOM on the recommendation of the BOE for a valid and accepted reasons. The highest eligible Class shall be awarded based on the FGPA as in the following table.

Table 14 Criteria for Awarding Classes

FGPA	***Final Result***
FGPA >= 3.70	First Class
3.30 <= FGPA and FGPA < 3.70	Second Class (Upper Division)
3.00 <= FGPA and FGPA < 3.30	Second Class (Lower Division)
2.00 <= FGPA and FGPA < 3.00	Pass

First Class

For the award of a First Class, a student shall:

a. have received a FGPA of not less than 3.70 for the entire Degree Programme.
   and
b. not have received any failure grade at any time during the entire Degree Programme
   and
c. not have carried over any weak passes for the entire Degree Programme at the time of finalizing the awarding of classes.

Second Class (Upper Division)

For the award of a Second Class (Upper Division), a student shall:

a. have received a FGPA of not less than 3.30 for the entire Degree Programme.
   and
b. not have received more than one failure grades at any time during the entire Degree Programme
   and
c. not have received any failure grade during the semesters 7 and 8
   and
d. not have carried over any incomplete or failure grades or weak passes for the entire Degree Programme at the time of finalizing the awarding of classes.

Second Class (Lower Division)

For the award of a Second Class (Lower Division), a student shall:

a. have received a FGPA of not less than 3.00 for the entire Degree Programme. and
b. not have received more than two failure grades at any time during the Programme and
c. not have received any failure grade during the semesters 7 and 8 and
d. not have carried over any incomplete or failure grades for the entire Degree Programme at the time of finalizing the awarding of classes.

6.1.3 Merit Awards

Students obtaining the highest GPA in Academic Studies shall be entitled for the respective Awards of merit. Awards to which students may be eligible on the recommendation of relevant authorities and the approval of the Board of Management are:

a) Trophy for the Best Graduant in Computer Science.
b) Trophy for the Best Graduant in Software Engineering.
c) Trophy for the Best Graduant in Computer Engineering.
d) Trophy for the Best Graduant in Information Technology.
e) Trophy for the Best Graduant in Information Systems.
f) Trophy for the Best Graduant in Data Science and Business Analytics.
g) Trophy for the Best Overall Performance in Academic Studies Computing Stream.

7 Academic Staff

Dr. LP Kalansooriya **(Dean -Faculty of Computing)**
Senior Lecturer Gr. I
Doctor of Engineering of Information Science and Control Engineering– Nagaoka University of Technology, Japan
Master of Information Technology, Specialized in Management – University of Colombo, School of Computing, Sri Lanka
Bachelor of Science – Faculty of Science, University of Peradeniya, Sri Lanka

Research Areas	Human Computer Interaction, Affective Computing Biomedical Engineering, Hologram Technology, Distance Learning, Technology in classroom
e-mail	pradeepkalansooriya@kdu.ac.lk

7.1 Department of Information Technology

Mr. WAAM Wanniarachchi **(Head – Department of Information Technology)**
Lecturer (Probationary)
M.Phil Sabaragamuwa University, Sri Lanka
BSc (Hons) In Information Technology, General Sir John Kotelawala Defence University
Research Areas Data Engineering, Machine learning

e-mail ashenw@kdu.ac.lk

Dr. (Mrs.) DU Vidanagama
Senior Lecturer Gr. I
PhD University of Moratuwa, Sri Lanka
MSc University of Kelaniya, Sri Lanka
BSc (Special) (Hons) in Statistics and Computer Science, University of Kelaniya
BSc in Information Technology, University of Colombo School of Computing
Research Areas E-Learning Big Data, Data mining, Opining mining, Machine Learning, Multi-agent Technologies, XML Database
e-mail udeshika@kdu.ac.lk

Dr. (Maj) RMM Pradeep (Retd)
Senior Lecturer Gr. I
PhD General Sir John Kotelawala Defence University, Sri Lanka
MSc (Civil) University of Moratuwa, Sri Lanka
BSc (Hons) in MIS National University Ireland

Research Areas: Geo-Informatics, Urban Flood Modeling, Engineering Applications

e-mail: pradeep@kdu.ac.lk

Mr. RPS Kathriarachchi
Senior Lecturer Grade II
PhD reading University of Sri Jayewardenepura, Sri Lanka
MSc In Information Technology Management University of Wolverhampton
BSc (Hons) In Computer Networks, University of Wolverhampton

Research Areas: Internet of Things, Cloud Computing, GPS, IT/IS Security, Computer Network and security

e-mail: pathum@kdu.ac.lk

Dr. N Wedasinghe
Senior Lecturer Gr II
PhD General Sir John Kotelawala Defence University Ratmalana
MSc in Information Technology, Charles Sturt University Australia
BSc (Hons) London Metropolitan University – UK
Research Areas Strategic IT Management, Management Information Systems, Risk Management, Disability Digital Divide, Human Recourses Management, Social Aspects in Computers

e-mail nirosha@kdu.ac.lk

Mrs. Wishma Samaraweera
Lecturer
MSc in Information Technology – University of Moratuwa
BSc (Special) Degree in Computing & Information, Sabaragamuwa University of Sri Lanka
Research Areas Data Science, Image Processing

e-mail wishma@kdu.ac.lk

Mr. WMSRB Wijayarathne
Lecturer
MSc in Management, University of Jayewardenepura
BSc (Hons) in Management Information Systems, University College Dublin
Research Areas Entrepreneur and Information Technology, Management Information Systems

e-mail shashikab@kdu.ac.lk

Mrs. PRD Wijesinghe
Lecturer (Unconfirmed)
MBA in Human Resource Management, University of Colombo, Sri Lanka
BSc in Business Management, Sabaragamuwa University of Sri Lanka
Research Areas Organizational Behavior, Organizational Psychology Creativity and Innovations

e-mail deepikaw@kdu.ac.lk

Ms. GAD Ganepola
Lecturer (Probationary) – (On Study Leave)
MSc in Information Technology, University of Moratuwa
BSc (Hons) Information Technology, General Sir John Kotelawala Defence University, Sri Lanka

Research Areas	Cyber Security, Affective Computing, Human Computer Interaction
e-mail	dasunig@kdu.ac.lk

Ms. MVT Kawya
Lecturer (Probationary)
MSc in Information Systems Management, University of Colombo
BSc (Hons) in Information Systems, General Sir John Kotelawala Defense University

Research Areas	Knowledge Management, Information Systems, Business Analytics
e-mail	mvtkawya@kdu.ac.lk

Ms. LDTT De Silva
Lecturer (Probationary)
MSc in Management Information Systems, University of Colombo
BSc (Hons) Information Systems, General Sir john Kotelawala Defence University
Research Areas Educational Data Mining, AI in Education, Management Information Systems, Information Policy

e-mail thumashids@kdu.ac.lk

Ms. KAUI Senevirathne
Instructor (Temporary)
BSc (Hons) in Information Technology, General Sir John Kotelawala Defence University
Research Areas Artificial Intelligence, Web Technologies

e-mail kauisenevirathne@kdu.ac.lk

Ms. KBGSN Devindika
Instructor (Temporary)
BSc (Hons) in Information Technology, General Sir John Kotelawala Defence University
Research Areas Web Technologies, Information security

e-mail kbgsndevindika@kdu.ac.lk

Ms. JA Hashini Nishadi
Instructor (Temporary)
BSc (Hons) in Information Technology Specialization in Software Engineering, SLIIT Campus
Research Areas Image Processing, Machine learning, Natural Language Processing
e-mail hashini.n@kdu.ac.lk

Ms. JHMSM Gunarathne
Instructor (Temporary)
BSc (Hons) in Information Technology, General Sir John Kotelawala Defence University
Research Areas Artificial Intelligence, Human Computer Interaction

e-mail jhmsmgunarathne@kdu.ac.lk

Ms. Malshi Madhuhansi Edirisinghe
Instructor (Temporary)
BSc (Hons) in Information Technology, General Sir John Kotelawala Defence University
Research Areas Artificial Intelligence, Natural Language Processing, Social Networks

e-mail medirisinghe@kdu.ac.lk

7.2 Department of Computer Science

Dr. LP Kalansooriya **(Dean -Faculty of Computing)**
Senior Lecturer Gr. I
Doctor of Engineering of Information Science and Control Engineering– Nagaoka University of Technology, Japan
Master of Information Technology, Specialized in Management – University of Colombo, School of Computing, Sri Lanka
Bachelor of Science – Faculty of Science, University of Peradeniya, Sri Lanka

Research Areas	Human Computer Interaction, Affective Computing Biomedical Engineering, Hologram Technology, Distance Learning, Technology in classroom
e-mail	pradeepkalansooriya@kdu.ac.lk

Dr. Kaneeka Vidanage
Senior Lecturer Gr. II **(Head – Department of Computer Science)**
PhD University of Malaysia, Terengganu
M. Phil University of Colombo
MSc University of Colombo School of Computing
BSc National University of Ireland
Research Areas Ontological Modelling, Computerized Process Enforcement, Computer Vision, Chatbots, Deep Learning, Goal Modelling, Semantic Web, Expert Systems

e-mail vidanage_bvki@kdu.ac.lk

Dr. Asela Gunasekara
Senior Lecturer Gr. II
PhD (Management Science & Engineering) – Huazhong University of Science & Technology, China
Master in public administration – University of Colombo
PGDip in Computer Science- University of Colombo
BSc in Computing and Information Systems
Research Areas Human Computer Interaction
E-Health
E-Government
Information Quality and Information Engineering

e-mail asela@kdu.ac.lk

Dr. (Mrs.) W Gunathilake
Senior Lecturer Gr. II
PhD in Computer Science, Keele University, UK
MSc in (IT), University of Colombo School of Computing (UCSC), Sri Lanka
MSc in Operations Research, University of Moratuwa, Sri Lanka
Post Graduate Certificate in Higher and Professional Education, Staffordshire University, UK
BSc University of Colombo, Sri Lanka
Certificate in Research Degree Supervision, Staffordshire University, UK
Research Areas Knowledge Management, Software Engineering, E-learning Cloud Computing, Health Informatics, IT Strategy

e-mail wijendrapg@kdu.ac.lk

Mrs. Mihiri Sirisuriya
Senior Lecturer Gr. II
PhD (Reading), University of Sri Jayewardenepura, Sri Lanka
MPhil University of Moratuwa
MSc University of Colombo School of Computing
BSc University of Sri Jayewardenepura, Sri Lanaka
Research Areas Deep Learning, Web Scraping, Artificial Neural Networks

e-mail mihiri@kdu.ac.lk

Mrs. MKP Madushanka
Lecturer (Probationary)
Reading MPhil/PhD – General Sir John Kotelawala Defence University, Sri Lanka
MSc - Post Graduate Institute of Science, University of Peradeniya, Sri Lanka
BSc (Hons)(Special) In Computer Science, South Eastern University of Sri Lanka

Research Areas Data Science, Machine Learning, Cyber Security

e-mail pavithram@kdu.ac.lk

Ms. GAI Uwanthika
Lecturer (Probationary)
MSc in Computer Science
BSc Special Degree in Computer Science and Technology
Research Areas Deep Learning, Computer Vision, Computational Biology

e-mail uwanthika.gai@kdu.ac.lk

Ms. DV Dharani Abesinghe
Lecturer (Probationary)
MSc – in Computer Science, specialization in Cloud Computing, University of Moratuwa, Sri Lanka
BSc (Hons)(Special) In Computer Science, SouthEastern University of Sri Lanka
Research Areas Image Processing, Internet of thing, Machine Learning, Cyber Security
e-mail abesinghe.dvds@kdu.ac.lk

Ms. KG Kaushalya Abeywardhane
Instructor Grade II
MSc – Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka
BICT, Vavuniya Campus, University of Jaffna Sri Lanka
Research Areas Machine Learning, Artificial Intelligence, Internet of Thing, Mobile & Wireless Communication
e-mail abeywardhane.kgk@kdu.ac.lk

Ms. DP Deraniyagala
Instructor (Temporary)
BSc (Hons) in Software Engineering, General Sir John Kotelawala Defence University
Research Areas Software Engineering, Human Computer Interaction, Programming Theories
e-mail deraniyagaladp@kdu.ac.lk

Mr. KHV Sameera
Instructor (Temporary)
MSc in Information Technology Management, University of Staffordshire, London,UK (Reading)
BSc (Hon) in Computer Science, University of Westminster,London,UK
Research Areas Data Science
Artificial Intelligence
Distance Learning
Cyber Security
Computer Vision

e-mail viraj.s@kdu.ac.lk

7.3 Department of Computer Engineering

Dr. B Hettige
Senior Lecturer (Grade II)– **(Head – Department of Computer Engineering)**
PhD (University of Moratuwa-2020)
Master of Philosophy (University of Moratuwa-2011)
BSc (University of Sri Jayewardenepura)
Research Areas Machine Translation, Multi Agent Systems Sinhala Language Computational Grammar
e-mail budditha@kdu.ac.lk

Prof. Ravindra Lal Weeraratne Koggalage
Professor
PhD in Engineering, The University of Melbourne, Australia
PMP – Certified Project Management Professional - USA
Second PhD in Buddhist Studies, Mahachulalongkornrajavidyalaya University, Thailand
M.Eng – Information Systems Research Lab, Nanyang Technological University, Singapore
MSc- Electrical Engineering, National University of Singapore
Research Areas Artificial Intelligence, Data science, Image Processing and Classification, Project Management

e-mail koggalage@kdu.ac.lk

Mr. DMR Kulasekara
Senior Lecturer (Grade II)
PhD of Computer Science – University of Murcia, Spain (Reading)
Master of Philosophy, University of Colombo School of Computing
BSc (Hons) Specialized Computational Physics: University of Colombo
BSc. Information Technology (Specialized Computer Systems and Networks) Sri Lanka Institute of Information Technology.
Research Areas Image processing
Computer graphic

e-mail dmrangak@kdu.ac.lk

Mrs. MAST Goonatilleke
Lecturer (Probationary)
M.Phil. in Computer Science (Reading), University of Sri Jayewardenepura, Sri Lanka
BSc (Hons) in Computer Engineering General Sir John Kotelawala Defence University
Research Areas Artificial Intelligence, Machine Learning, Multi- Agent System, Robotics and Automation
e-mail goonatillekemast@kdu.ac.lk

Ms. AGR Sandeepa
Lecturer (Probationary)
MSc Business Analytics (Reading)
BSc (Hons) Electrical and Electronic Engineering, General Sir John Kotelawala Defence University
Research Areas Artificial Intelligence and Machine Learning
Big Data Analytics

e-mail sandeepa.a@kdu.ac.lk

7.4 Department of Computational Mathematics

Dr. (Mrs.) DU Vidanagama
Senior Lecturer Grade I (**Head - Department of Computational Mathematics)**
PhD University of Moratuwa, Sri Lanka
MSc University of Kelaniya, Sri Lanka
BSc (Special) (Hons) in Statistics and Computer Science, University of Kelaniya
BSc in Information Technology, University of Colombo School of Computing
Research Areas Big Data Analytics, Ontological Modelling, Multi Agent Systems

e-mail udeshika@kdu.ac.lk

Dr. DC Wickramarachchi
Senior Lecturer
PhD University of Canterbury, New Zealand
M.Phil (Stat.) University of Peradeniya
MSc (App. Stat.) University of Peradeniya
BSc Special (Stat.) University of Sri Jayewardenepura

Research Areas Applied Statistics, Data Mining

Mrs. RGUI Meththananda
Senior Lecturer (Grade II)
M.Phil. in Mathematics
BIT
BSc (Hons) Specialization in Mathematics

Research Areas Computational Mathematics

e-mail umamethananda@kdu.ac.lk

Mrs. Chathurika Sandamali
Lecturer (Probationary)
MSc in Applied Statistics, University of Colombo
BSc (Hons) in Industrial Mathematics, Rajarata University of Sri Lanka
Research Areas Mathematical modelling
Mathematical biology
e-mail sandamalierc@kdu.ac.lk

Mrs. SMM Lakmali
Lecturer (Unconfirmed)
MPhil in Statistics at University of Peradeniya
BSc in Statistics and Operations Research, University of Peradeniya
Research Areas Regression models, Operation Research, Applied Statistics

e-mail lakmalismm@kdu.ac.lk

Ms. K Deshani Madhubhashini
Instructor Grade II
MSc in Applied Statistics, University of Colombo (Reading)
BSc (Hons) in Applied Science in Financial Mathematics and Industrial Statistics, Jaffna University of Sri Lanka
Research Areas Statistical Modelling
Machine Learning
e-mail madhubhashanikd@kdu.ac.lk

Ms. DMTN Jayawardane
Temporary (Instructor)
MSc in Applied Statistics (Reading), University of Jayewardenepura
BSc (Hons) Applied Statistics, Southeast University of Sri Lanka
Research Areas Regression Analysis, Time Series Analysis

e-mail jayawardanadmtn@kdu.ac.lk

Ms. WTC Perera
Instructor (Temporary)
BSc (Hons) Special in Mathematics, University of Ruhuna
Research Areas Regression Analysis, Operation Research, Machine Learning

e-mail thejani.p@kdu.ac.lk

Ms. ADKCD Jayasinghe
Instructor (Temporary)
BSc (Hons) Special Degree in Mathematics and Statistics, University of Ruhuna
Research Areas Operation Research, Time Series, Statistics

e-mail adkcdjayasinghe@kdu.ac.lk

8 Administrative Information

8.1 Key Appointments

Chancellor	**General Gerard Hector de Silva** (Retired) RWP VSV USP ndc
Vice Chancellor Tel: 0112634274 Fax: 0112622603	**Rear Admiral HGU Dammika Kumara,** VSV, USP, psc, MMaritimePol, BSc (DS)
Rector (Southern Campus) Tel: 0473624895 Mobile: 0710219221 Fax: 0473620811	**Major General LCR Jayasuriya** RSP ndc psc
Deputy Vice Chancellor (Defense and Administration) Tel: 0112632027 Mobile: 0710219222/0712347733 Fax: 0112632027	**Major General CA Wickramasinghe** USP USACGSC
Acting Deputy Vice Chancellor (Academic) Tel: 0112638660 Fax: 0112638660	**Professor KAS Dhammika**

Dean Faculty of Graduate Studies
Tel:0112632130
Fax: 0112632419

Professor Charitha L Goonasekara
(BSc, UOC-Sri Lanka; PhD, MUN-Canada, Postdoc, UBC-Canada)

Dean Faculty of Defense and Strategic Studies
Tel:0112635488
Fax: 0112635488

Colonel Ramindu Hasantha RSP psc

Dean Faculty of Computing
Tel: 0112622995

Dr Pradeep Kalansooriya
PhD(JAPAN), MIT (SL) , BSc(Hons) (SL), JSKE, CSSL

8.2 Registrar's Office

Registrar
Tel:0710219248

Mr. VD Kithsiri
E MBA (PIM - SJP), PGDM (SJP), BCom (Special) Hons, LICA & PI-CASL, Dip in English (Aquinas, SLIDA, ACAE

Deputy Registrar
Tel:0710219255

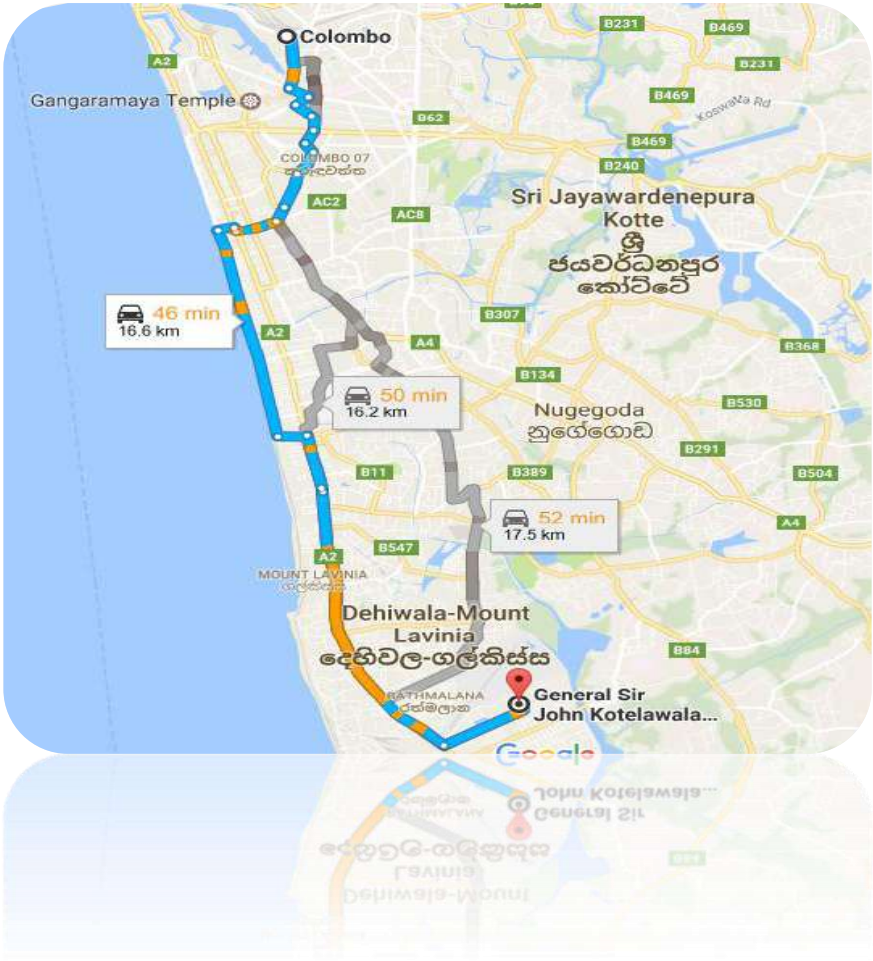
Lieutenant Commander (C) DMS Dissanayke, RSP, psc,MSc (D & SS)

Foreign Relations Officer
Tel:0710219338

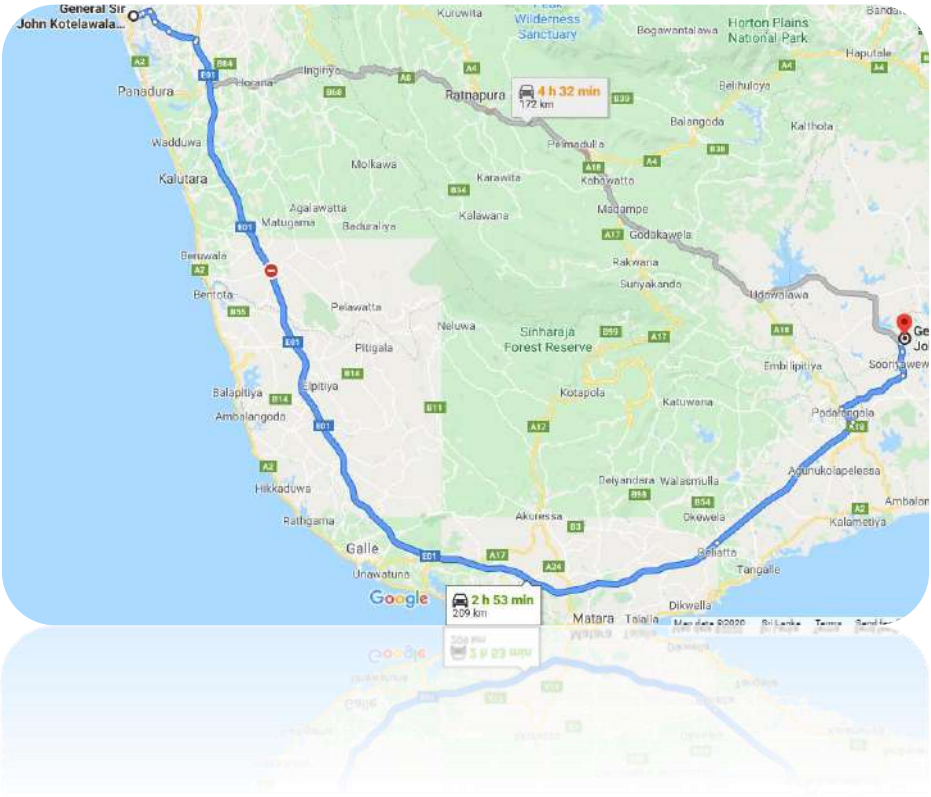
LRCP Udapamunuwa

8.3 University Contact Details

General Sir John Kotelawala Defence University
Kandawala Road,
Ratmalana,
Sri Lanka.
Tel: +9411 2 635268
Email: kdudefence@kdu.ac.lk



Southern Campus,
General Sir John Kotelawala Defence University,
Edison Hill,
Nugegalayaya,
Sewanagala,
Kiribbanwewa,
Sooriyawewa Rd,
Sri Lanka.
Tel: 047 2030800
047 3620812
Email: southerncampus@kdu.ac.lk



FOR THE MOTHERLAND FOREVER