



"Certified Engineers Innovative IT Professionals"

ELECTRONIC ENGINEERING MECHANICAL ENGINEERING MECHATRONICS COMPUTER SCIENCE (INTELLIGENT SYSTEMS) INFORMATION SYSTEMS IN BUSINESS MANAGEMENT INFORMATION TECHNOLOGY NETWORKING & SECURITY SOFTWARE ENGINEERING



ABOUT US

First City UC has an excellent track record of producing highly employable graduates, successful entrepreneurs and award-winners. First City UC's home-grown programmes are recognized by our international university partners.

To meet the needs of the industry for employable graduates, First City UC's programmes are:

- Fully accredited by the Malaysian Qualifications Agency (MQA) and relevant professional bodies.
- Industry relevant.
- Delivered by a highly qualified team of dedicated lecturers and professionals with teaching and industry experience.
- Complemented by state-of-the-art facilities and supported by an
 e-learning portal, IT laboratories, and a library with e-library facilities
 and electronic databases.

WHY STUDY ENGINEERING & COMPUTING PROGRAMMES AT FIRST CITY UC?

- Industry-relevant curriculum, guest lecturers, visits, placements and projects
- Annual Innovation Day to showcase final year students' projects to industry leaders
- Free IEM student membership for students to keep abreast with developments in the engineering field
- Student-centred outcome-based training and project-based learning with focus on complex problem-solving skills
- Lecturers with relevant academic and professional qualifications, and industry experience
- Lecturers are members of the following:

 a. Board of Engineers Malaysia (BEM)
 - Professional Engineer with Practicing Certificate (P.Eng)
 - Professional Engineer (P.Eng)
 - Graduate Engineer (Grad.Eng)
 - b. The Institution of Engineers, Malaysia (IEM)
 - Member (M.I.E.M)
 - Graduate Member (Grad I.E.M.)



INDUSTRY PARTNERS / EMPLOYERS

IT SERVICES AND SOLUTIONS

- Accenture Solutions Sdn. Bhd.
- Attspace ventures Sdn. Bhd.
- Avanade Malaysia Sdn. Bhd.
- Datasonic Smart Solutions Sdn. Bhd.
- eGenting Sdn. Bhd.
- Fusion Informatics Ltd.
- Gaia Technologies Sdn. Bhd.
- MobiDev
- Silverlake Group
- SYS IT (M) Sdn. Bhd.
- Techninier Sdn. Bhd.

IT SYSTEMS DESIGN, PRODUCTION AND MANAGEMENT

- AEX System Holdings Pty. Ltd.
- CNT Solution Sdn. Bhd.
- Fireworks Solutions Sdn. Bhd.
- Fujitsu (M) Sdn. Bhd.
- Fusion Informatics Ltd.
- Huawei Technologies (M) Sdn. Bhd.
- Intel (M) Sdn. Bhd.
- LavaX technologies Sdn. Bhd.
- Longbow Technologies Sdn. Bhd.
- Trinerva Technology Sdn. Bhd.
- Wonder Pod Sdn. Bhd
- Xhinobi Sdn. Bhd.

PRODUCT DESIGN / MANUFACTURING / DEVELOPMENT

- DDMan Sdn. Bhd.
- SDP Manufacturing Sdn. Bhd.
- Brownfield Engineering Sdn. Bhd.
- Cryogenic Specialty Manufacturing Sdn. Bhd.
- Daikin Malaysia Sdn. Bhd.
- Dunham Bush Industries Sdn. Bhd.
- Emerald Systems Design Center
- Erect Engineering PressWorks Sdn. Bhd.
- Frencken Mechatronics (M) Sdn. Bhd.
- HHM Machinery & Instruments Sdn. Bhd.
 Hong Leong Yamaha Motor Sdn. Bhd.
- J Foong Technologies Sdn. Bhd.
- Panasonic Appliances Air Conditioning Malaysia
 Sdn. Bbd
- Pecca Leather Sdn. Bhd.
- Top Glove Corporation Berhad

SEMI-CONDUCTOR INDUSTRY

- Besi APac Sdn Bhd.
- Uetex Microelectronics Co. Ltd.

ENGINEERING PRODUCTS

- DMC Solution Groups
- MIMOS Berhad
- Mycron Steel CRC Sdn. Bhd.
- SHOWA DENKO CARBON Malaysia Sdn. Bhd.
- SMC Automation (Malaysia) Sdn. Bhd.

ENGINEERING SERVICES AND SOLUTIONS

- CabNet Systems (M) Sdn. Bhd.
- Gabungan Strategik Sdn. Bhd.
- General System Engineering Sdn. Bhd.
- Greatians Consulting Sdn. Bhd.
- JJ-Lurgi Engineering Sdn. Bhd.
- Klanggroup Holdings Sdn. Bhd.
- Lafarge Asia Sdn. Bhd.
- Iconix Consulting Sdn. Bhd.

FINANCIAL INSTITUTIONS

- Affin Bank Berhad
- Alliance Bank Malaysia Berhad
- CIMB Bank Berhad
- RHB Bank Berhad
- Standard Chartered Bank Berhad

FINANCIAL SERVICES/ FINANCIAL CONSULTING

- Bursa Malaysia
- Deloitte SEA Services Sdn. Bhd.
- Pay-point (M) Sdn. Bhd.

INTELLIGENT TECHNOLOGY / CLOUD COMPUTING / INTERNET COMMUNICATION SERVICES

- Dimension Data (M) Sdn. Bhd.
- Enfrasys Consulting Sdn. Bhd.
- aoSMAC Sdn. Bhd.
- I Transcend (M) Sdn. Bhd.
- Ingram Micro Malaysia Sdn. Bhd.
- Neuon Al Sdn. Bhd.

TECHNOLOGY AND CONSULTING SERVICES

- IBM Malaysia Sdn. Bhd.
- Indium Software (Malaysia) Sdn. Bhd.
- IRIS Corporation Berhad
- TMAS Technologies Sdn. Bhd
- Unicsoft
- JF Technology Berhad
- Nem Malaysia Sdn. Bhd.
- Elvira Systems Sdn. Bhd.

OUR UNIVERSITY PARTNER









- Located in the North-East of England, UK.
- Offers an outstanding student and learning experience and has established international reputation for academic excellence and for the global impact of its research.
- Has fostered creativity, enterprise and innovation for over 90 years, shaping the lives of students from over 100 countries worldwide.
- Generates and applies knowledge that contributes to the economic, social and cultural success
 of students, partners and the communities.
- Has invested over £270m in its award-winning campus and is part way through a further £300m development.
- Ranked 12th in the UK out of 51 universities in the postgraduate category, in the The Whatuni Student Choice Awards 2019.
- Ranked joint 34th out of 116 UK universities for student experience (Times Higher Education student experience survey 2018).
- Listed in the Times Higher Education World University Rankings for the year 2021.
- Ranked 15th in the world in the Animation Career Review International Animation School Rankings 2021. (178 colleges considered.)

STATE-OF-THE-ART FACILITIES















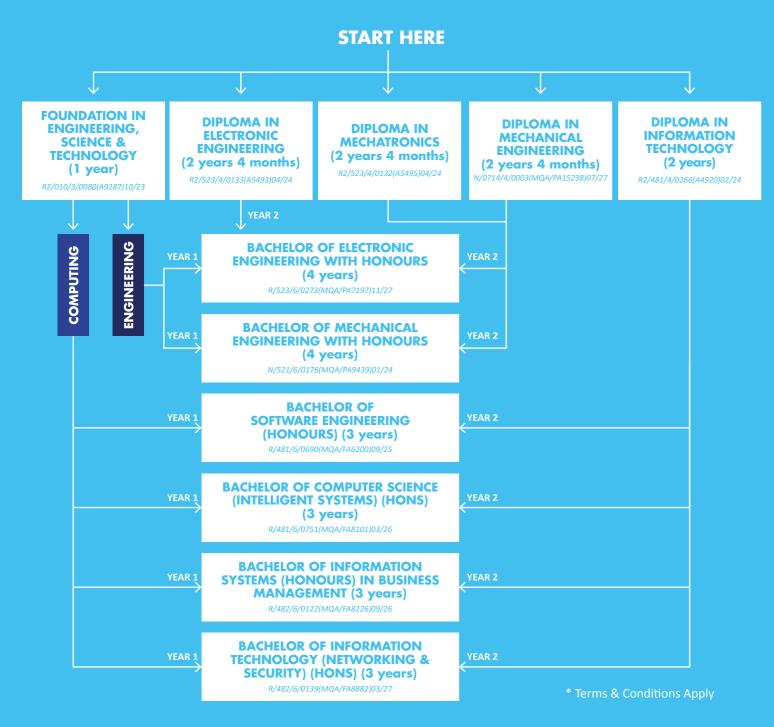






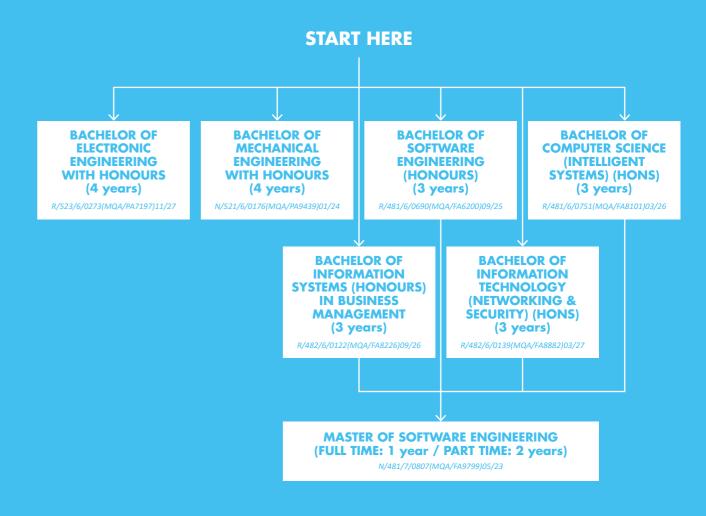
PROGRAMME PATHWAYS

SPM/ O-LEVEL HOLDERS OR EQUIVALENT: FOUNDATION / DIPLOMA PATHWAYS



PROGRAMME PATHWAYS

STPM/ UEC/ A-LEVEL HOLDERS OR EQUIVALENT: DEGREE PATHWAY



FOUNDATION IN ENGINEERING, SCIENCE & TECHNOLOGY

R2/010/3/0080(A9287)10/23

This programme equips students with strong fundamentals and skills for either Engineering or Computing. Students study modules that are focused to ensure their progression towards obtaining a professional qualification in Engineering or Computing. They will also be trained to use relevant industrial hardware and software necessary for their progression to our bachelor's degree programmes in Engineering or Computing.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with a solid foundation in analytical techniques, design procedures and study skills to ensure a smooth transition into our degree programmes.
- · Provide students with foundational knowledge in engineering, science, and technology.
- Enable students to develop creative problem-solving skills.
- · Instil in students social and ethical implications of engineering, science, and technology applications.
- Produce students with the appropriate skills to undertake lifelong learning.

DURATION

1 Year January, May, September

ENTRY REQUIREMENTS

- Minimum 5 credits (including of English and Mathematics) and including Physics for progression to Engineering Degrees
- Minimum 5 credits (including of English and Mathematics) and including credit in Additional Mathematics or credit in Mathematics and Science/Technology/Engineering subjects for progression to Software Engineering or Computer Science
- Minimum 5 credits (including of English and Mathematics) for progression to Information Systems or Information Technology Degrees
- UEC: Minimum 4Bs (including English and Mathematics)
- IGCSE: Minimum 5 credits (including English and Mathematics) OTHER QUALIFICATIONS: Equivalent qualifications which are
- recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

A fast track one-year programme for SPM/O-Level holders. Upon successful completion, they will gain entry into any of our Honours Degree programmes in Engineering or Computing.

PROGRAMME CONTENTS

SEMESTER 1

- Analytical Mathematics
- Communication and Study Skills
- Computer Technology
- Personal and Professional Development
- Advance Office Software
- Computing
- Analytical Mathematics
- Communication and Study Skills
- Computer Technology
- Personal and Professional Development
- Advance Office Software

SEMESTER 2

- Engineering
 - Calculus Mathematics
 - Mechanics
 - Instrumentation and Measurements
 - Fundamental Electrical and Electronic Engineering
- Computing
- Calculus Mathematics
- Software Design Techniques
- Web Design
- Structured Programming

SEMESTER 3

- Engineering
- Group Project
- Engineering Mathematics
- Applied Physics
- Materials Science
- Computing
 - Group Project
- Object-Oriented Programming
- Systems Analysis and Design

DIPLOMA IN ELECTRONIC **ENGINEERING**

R2/523/4/0133(A5493)04/24

This programme equips students with knowledge and technical skills in electronic engineering. Students will focus on modules such as Fundamentals of Circuits, Electronic Devices & Circuits, Integrated Circuit (IC) Technology, Communications, Embedded Systems Programming & Interfacing. Students use Mentor Graphics, an industrial standard software, for Microchips and Integrated Circuit design. Students will be registered with the Institute of Engineers Malaysia (IEM). Also, students will undergo internships where they will gain hands-on

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with a solid understanding of engineering sciences and mathematics for electronic engineering.
- Equip students with knowledge, skills, and technical competencies in the electronic engineering discipline to meet new technological
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Equip students with the ability to provide innovative, creative, and ethical solutions in electronic engineering.
- Produce graduates with the appropriate skills to undertake lifelong learning and work globally.

DURATION INTAKES

2 Years 4 Months January, May, October

ENTRY REQUIREMENTS

- SPM: Minimum 3Cs (including Mathematics & 1 Science subject and at least a pass in English)
- UEC: Minimum 3Bs (including Mathematics & 1 Science subject and at least a pass in English'
- GCE O-LEVEL: Minimum 3Cs (including Mathematics & 1 Science subject and at least a pass in English)
- OTHER QUALIFICATIONS: Equivalent qualifications recognised by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

A fast track programme for SPM/O-Level holders. Upon successful completion, they will gain entry into Year 2 of our Honours Degree in Electronic Engineering, which is approved by Board of Engineers Malaysia (BEM).

CAREER OPPORTUNITIES

- Electronic Systems Engineering
 Project Engineering
- Microchips Design
- Communication Engineering

- Process Engineering Engineering Testing
- Maintenance Engineering

PROGRAMME CONTENTS

YEAR 1

- Materials Science
- Basic Circuit Theory
- Communication Skills
- Programming Language Digital Electronics I
- Basic Electronics
- Algebra
- Calculus
- Microcontroller Principles
- Analogue Electronics I
- Engineering Mathematics

YEAR 2

- Computer Interfacina Techniques
- Microcontroller Programming and Interfacing
- Project Management
- Analogue Electronics II Digital Electronics II
- Signals and Systems
- Industrial Training

YEAR 3

- Basic Communication Systems
- Project
- Flective I
- Elective II
 - IC Technology - Electronic Design Automation
 - Advanced Analogue and Digital Electronics
- Electronic Circuit Modelling and Simulation

DIPLOMA IN MECHATRONICS

R2/523/4/0132(A5495)04/24

This programme equips students with knowledge and technical skills in mechanical and electronic engineering. Students will study modules focusing on electrical & electronic engineering, embedded systems, thermodynamics, fluid dynamics, hydraulics & pneumatics and applied mechanics. Students will complete projects related to robotics and automation. Students will be registered with the Institute of Engineers Malaysia (IEM). Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with a solid understanding of engineering sciences and mathematics for mechatronics engineering.
- Equip students with knowledge, skills, and technical competencies in the mechatronics engineering discipline to meet new technological advancements.
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Equip graduates with the ability to provide innovative, creative, and ethical solutions in mechatronics engineering.
- Produce graduates with the appropriate skills to undertake lifelong learning and work globally.

DURATION INTAKES

2 Years 4 Months January, May, October

ENTRY REQUIREMENTS

- SPM: Minimum 3Cs (including Mathematics & 1 Science subject and at least a pass in English)
- UEC: Minimum 3Bs (including Mathematics & 1 Science subject and at least a pass in English'
- GCE O-LEVEL: Minimum 3Cs (including Mathematics & 1 Science subject and at least a pass in English)
- OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

A fast track programme for SPM/O-Level holders. Upon successful completion, they will gain entry into Year 2 of any of our Honours Degree programmes in Mechanical Engineering or Electronic Engineering, which are approved by the Board of Engineers Malaysia (BEM).

CAREER OPPORTUNITIES

- Robotics
- Automation
- Process Engineering
- Manufacturing
- Production
- Engineering Testing
- Quality Control

YEAR 1

- Basic Circuit Theory
- Communication Skills
- Digital Electronics I
- Basic Electronics
- Calculus
- Analogue Electronics I

- Project Management
- Applied Mechanics II
- Engineering Design

YEAR 3

- Flective II
- Programmable Logic Controller
- Hydraulics and Pneumatics

PROGRAMME CONTENTS

- Materials Science
- Programming Language

- Microcontroller Principles
- Applied Mechanics I
- · Engineering Mathematics

YEAR 2

- Computer Interfacing Techniques
- Manufacturing Process
- Thermofluid Dynamics
- Industrial Training

- Project
- Flective I

- Computer Aided Design / Computer Aided Engineering
- Measurement and Industrial Control

DIPLOMA IN INFORMATION TECHNOLOGY

R2/481/4/0266(A4920)02/24

This programme equips students with knowledge and technical skills in Information Technology. Students will focus on multimedia-based systems, software applications, internet technology, multimedia technology, information systems, networking, e-commerce and database management systems. Students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with knowledge and technical competencies in computing disciplines to meet industry requirements.
- Equip students with the ability to provide innovative, creative, and ethical solutions in information technology.
- · Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Produce graduates with the appropriate skills to undertake lifelong

DURATION INTAKES

2 Years January, May, October

ENTRY REQUIREMENTS

- SPM: Minimum 3Cs (including Mathematics and at least a pass in English)
- UEC: Minimum 3Bs (including Mathematics and at least a pass in English)
- GCE O-LEVEL: Minimum 3Cs (including Mathematics & 1 Science subject and at least a pass in English)
- OTHER QUALIFICATIONS : Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

A fast track programme for SPM/O-Level holders. Upon successful completion, they will gain entry into Year 2 of any of our Honours Degree programmes in Software Engineering, Computer Science (Intelligent Systems), Information Systems Management or Networking & Security.

CAREER OPPORTUNITIES

- Information Technology
- Networking & Security
- Software Development Computer and System Support
- Database Administration Mobile Applications
- Web Design
- Programming
- Multimedia Application
- Development
- E-Commerce

PROGRAMME CONTENTS

YEAR 1

- English for Communication
- Mathematics for Computing
- Computer Applications Introduction to ICT
- Multimedia Technology and Development Communication Skills
- Database Management Systems
- Discrete Mathematics Introduction to Programming
- Basic Web Development
- Operatina Systems System Analysis and Design
- E-Commerce

YEAR 2

- Project Management
- Human Computer Interaction Fundamentals of Mobile Computing
- Elective I
- Flective II
- Final Project
- Object-Oriented Development Advanced Web Development
- Computer Networks
- Elective III
- Industrial Training
- Elective I & II
- Internet Marketina - Computer Organisation & Architecture - Internet Technology
- Introduction to Intelligent System
- Data Structure & Algorithm

BACHELOR OF ELECTRONIC ENGINEERING WITH HONOURS

R/523/6/0273(MQA/PA7197)11/27

This programme equips students with a broad range of knowledge and technical skills required of a certified electronic engineer. Students will study modules focusing on electronic devices and circuit design, control systems, signal processing, electronic system design, microchips design, mobile communications, embedded systems programming & interfacing.

Emphasis is placed on analytical and problem-solving skills, interpersonal and engineering management skills, project management and product development driven by project-based learning preparing graduates for the Internet of Things and Industry 4.0. Students use Mentor Graphics, an industrial standard software, for Microchips and Integrated Circuit design. Students will be registered with the Institute of Engineers Malaysia (IEM), Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip graduates with technical knowledge and skills in the field of electronic engineering.
- · Produce engineers who adhere to social, ethical and professional
- Empower graduates with the ability to provide innovative and creative engineering solutions.
- Produce graduates who can work globally and engage in research and life-long learning.

DURATION INTAKES

February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs (including Mathematics and Physics in SPM)
- UEC : Minimum 5Bs (including Mathematics and Physics)
- GCE A-LEVEL: Minimum 2Cs (including Mathematics and Physics
- FOUNDATION/MATRICULATION: Pass with minimum CGPA 2.0
- DIPLOMA: Pass with minimum CGPA 2.0 / Diploma (Level 4, MQF) in the related field
- OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Business Administration (MBA) programme with special Alumni tuition fees.

CAREER OPPORTUNITIES

- Electronic Engineering
- Microchips Design
- IoT Systems Engineering
- Communication Engineering
- Wireless/ 5G Engineering
- Antenna Design Engineering
- Radio frequency (RF) Engineering
- Automation Engineering
- Instrumentation and control engineering

PROGRAMME CONTENTS

YEAR 1

- Engineering Practice and Communication Skills
- Engineering Mathematics I Circuit Analysis I
- Digital Electronics
- Computer Applications for Engineers
- Engineering Mathematics II
- Electromagnetic Field Theory Electronic Devices and Circuits
- Introduction to Electrical Power Technology

YEAR 2

- Engineering Mathematics III
- Analogue Integrated Circuits Applications
- Introduction to Communication Engineering
- Programming for Engineers
- Circuit Analysis II
- Digital Communications
- Digital Circuits and Design
- Instrumentation and Measurement
- Microprocessor and Microcontroller Systems
- Engineering Drawing

YEAR 3

- · Signals and Systems
- Analogue Systems Design
- Power Electronics
- Digital Systems Design
- Integrated Design Project
- Control Systems
- Numerical Analysis and Statistics
- Embedded System Applications
- Technology and Society
- Computer Architecture and Organization
- Integrated Design Project

YEAR 4

- Final Year Project
- Digital IC Design
- Digital Signal Processing
- Project Management Elective I
- Final Year Project
- Mobile Communications
- Digital Control Systems
- Flective II
- Elective III
- Elective I :
- Microwave Engineering
- Communication Systems and Networks
- Digital Image Processing
- Optical Communications
- Flective III
- Systems on Silicon
- Analogue Integrated Circuits Design

Upon completion of Year 3, students are required to undergo 12 weeks of industrial training.

Reliability Test Engineering Maintenance Engineering

- Project Engineering

BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS

N/521/6/0176(MQA/PA9439)01/24

This programme equips students with a broad range of knowledge and technical skills required of a certified mechanical engineer. Students will study modules focusing on materials, solid & fluid mechanics, thermodynamics, heat transfer, control, instrumentation, design and manufacturina.

Emphasis is placed on analytical and problem-solving skills, interpersonal and engineering management skills, Project Management and Product Development driven by project-based learning which prepares graduates for I.R 4.0. Students use Solid Edge and Solid Works industrial standard software for mechanical 3D design and finite element analysis for intelligent machine design & production. Students will be registered with the Institute of Engineers Malaysia (IEM). Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- · Equip graduates with technical knowledge and skills in the field of mechanical engineering.
- Produce engineers who adhere to social, ethical and professional
- Produce graduates who can work globally and engage in research and life-long learning.

DURATION INTAKES

4 Years February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs (including Mathematics and Physics)
- UEC: Minimum 5Bs (including Mathematics and Physics)
- GCE A-LEVEL: Minimum 2Cs (including Mathematics and Physics)
- FOUNDATION/MATRICULATION: Pass with minimum CGPA 2.0
- DIPLOMA: Pass with minimum CGPA 2.0 / Diploma (Level 4, MQF) in the related field
- OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Business Administration (MBA) programme with special Alumni tuition fees.

CAREER OPPORTUNITIES

- Mechanical Engineering
- · Manufacturing Engineering
- Technical Support Engineering
- Test Engineering
- Design Engineering
- Project / Site Engineering
- Research Engineering
- Automation Engineering
- Automotive Engineering
- Engineering Consultancy
- Construction Engineering

PROGRAMME CONTENTS

YEAR 1

- Engineering Mathematics I
- Engineering Statics
- Introduction to Electrical and Electronic Engineering
- Engineering Drawing
- Engineering Mathematics II
- Engineering Materials I
- Engineering Dynamics Machine Drawing
- Engineering Practice and Communication Skills

YEAR 2

- Engineering Mathematic III C Programming Techniques
- Fluid Mechanics I
- Thermodynamics I Solid Mechanics I
- Solid Mechanics II
- Thermodynamics II Fluid Mechanics II
- Introduction to Microprocessor Instrumentation and Measurement

YEAR 3

- Mechanical Engineering Design I
- Heat Transfer
- Engineering Materials II Manufacturing Processes
- Engineering Economics
- Integrated Design Project
- Mechanical Engineering Design II Control Systems
- Numerical Analysis and Statistics Electrical Power and Machines
- Integrated Design Project

YEAR 4

- Final Year Project
- Operational and Quality Management
- Sustainable Energy Systems Mechanical Vibration
- Professional Practice
- Project management and Product Development Entrepreneurship
- Elective I
- Elective II
- Elective I and Elective II:
- Finite Element Method - Hydraulics and Pneumatics
- Fragnomics
- Air conditioning and Refrigeration - Manufacturing System - Engineering Tribology
- *Upon completion of Year 3, students are required to undergo 12 weeks of industrial training.

BACHELOR OF SOFTWARE ENGINEERING (HONOURS)

R/481/6/0690(MQA/FA6200)09/25

This programme equips students with a broad range of knowledge and technical skills in industrial, commercial and scientific computing. It integrates skills development relevant to the Information & Communications Technology (ICT) industry. Students will study modules focusing on mobile programming, SQL, C++, C, C#, PHP, Java Script, Java, HTML, CSS and Python. Emphasis will be placed on system analysis & design, software requirements engineering, software development, software testing and quality assurance. Also, students will undergo internships where they will agin hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with knowledge and technical competencies in software engineering for today's dynamic IoT and Cloud Computing
- Equip students with the ability to provide innovative, creative, and ethical integrated software solutions.
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Produce graduates who can work globally and engage in research and life-long learning.

DURATION INTAKES

3 Years February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs with credit in Additional Mathematics or credit in Mathematics and Science/Technology/Engineering subjects at SPM or its equivalent
- UEC : Minimum 5Bs (including English and Mathematics)
- GCE A-LEVEL: Minimum 2Es with 5 credits in GCE O Level / SPM (including English and Mathematics)
- FOUNDATION / MATRICULATION : Pass with minimum CGPA 2.0 with credit in Additional Mathematics in SPM
- DIPLOMA: Pass minimum CGPA 2.5 with a credit in Additional Mathematics in SPM or its equivalent
- OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Software Engineering (MSE) or Master of Business Administration (MBA) programme with special Alumni tuition fees

CAREER OPPORTUNITIES

- Software Design & Development
- Programming
- Cloud Computing
- IoT Systems Programming
- Mobile Application Development
- Systems Analysis & Design
- Web Development
- Network Design, Integration & Maintenance
- Database Administration
- IT Consultancy

PROGRAMME CONTENTS

YEAR 1

- Basic Computing Principles
- Systems Analysis and Desian
- Programming Methods Mathematics in Computing
- Database Systems
- Internet Design Principles
- Computer Architecture
- Computer Ethics and Cyber Law
- Structured Programming
- Internet Programming & Applications
- Discrete Mathematics
- Software Requirements Engineering

YEAR 2

- IT Project Management
- Generic Programming
- Visual Programming
- Software Testing and Quality Assurance
- Operating Systems
- Database Management Systems
- Software Development
- Object-oriented Programming Software Engineering Principles
- Data Structures and Algorithms
- Software Verification and Validation
- Computer Networks

YEAR 3

- Project 1
- Human Computer Interaction
- Object-oriented Analysis and Design
- Research Methodology
- Elective I
- Elective II Project 2
- Cloud Computing
- Formal Methods
- Real-time Analysis and Design
- Elective III
- Elective IV

Elective I & II:

- Large-scale Computing
- Artificial Intelligence
- Mobile Platform Programming
- Elective III & IV:
- Internet of Things
- Distributed Systems
- Natural Language Processing

*Upon completion of Year 2, students are required to undergo 12 weeks of industrial training.

BACHELOR OF COMPUTER SCIENCE (INTELLIGENT SYSTEMS) (HONS)

R/481/6/0751(MQA/FA8101)03/26

This programme equips students with a broad range of knowledge and technical skills in essential facts, concepts, principles, and theories relating to Artificial Intelligent Systems. Students will study modules focusing on intelligent systems, data science & analytics, machine learning, IoT and intelligent systems integration, natural language processing and mobile platform programming. Emphasis is placed on application of theoretical principles, data structures & algorithms to optimize the performance of Intelligent Systems. These are essential skills for today's cloud computing and big data analysis. Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with knowledge and technical competencies in Intelligent Systems for today's dynamic IoT and Cloud Computing environment
- Equip students with the ability to provide innovative, creative, and ethical integrated solutions for Intelligent Systems
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Produce graduates who can work globally and engage in research and life-long learning.

DURATION INTAKES

3 Years February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs with credit in Additional Mathematics or credit in Mathematics and Science/Technology/Engineering subjects at SPM or its equivalent at SPM or its equivalent
- UEC: Minimum 5Bs (including English and Mathematics)
- GCE A-LEVEL: Minimum 2Es with 5 credits in GCE O Level / SPM (including English and Mathematics)
- FOUNDATION / MATRICULATION : Pass with minimum CGPA 2.0 with credit in Additional Mathematics in SPM or its equivalent
- DIPLOMA: Pass minimum CGPA 2.5 with a credit in Additional Mathematics in SPM or its equivalent
- OTHER QUALIFICATIONS : Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Software Engineering (MSE) or Master of Business Administration (MBA) programme with special Alumni

CAREER OPPORTUNITIES

- Artificial Intelligence Design
- IoT Integration Systems
- Business Decision Systems
- Mobile Application Development
- Information Analysis
- Natural Language Programming Development
- Back-end Game Development
- Intelligent Cloud Systems

PROGRAMME CONTENTS

YEAR 1

- · Mathematics in Computing
- Basic Computing Principles
- Programming Methods · System Analysis and Design
- Computer Ethics and Cyber Law
- Discrete Mathematics · Introduction to Intelligent Systems
- Computer Networks

Digital Electronics

- Database Systems
- Structured Programming

- IT Project Management
- Business Intelligence • Database Management Systems
- Generic Programming
- Operating Systems
- Visual Programming Software Development
- Embedded Systems
- Computer Architecture
- Multimedia Systems
- Object Oriented Programming Data Structures and Algorithms

YEAR 3

- Project 1
- Human Computer Interaction
- Artificial Intelligence
- Elective I
- Elective II
- Project 2
- IoT and Intelligent Systems Integration
- Machine Learning
- Natural Language Processing
- Elective III Flective IV

Electives I & II:

- Data Science Analytics
- Mobile Platform Programing - Large Scale Computing
- 3D Modelling
- Elective III & IV:
- Real-Time Analysis and Design - Cloud Computing
- Distributed Systems
- Rich Media Technology

*Upon completion of Year 2, students are required to undergo 12 weeks of industrial training.

BACHELOR OF INFORMATION SYSTEMS (HONOURS) IN BUSINESS **MANAGEMENT**

R/482/6/0122(MQA/FA8226)09/26

This programme equips students with a broad range of knowledge and technical skills in information systems and business management. Students will study modules focusing on data science & big data analytics, data warehousing & data mining, management information systems, database management systems, business related knowledge and skills. Emphasis is placed on computer system analysis, business analysis, IT system development, IT network management and data analytics. Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with knowledge and technical competencies in Business Information Systems for today's dynamic IoT and Cloud Computing environment
- Equip students with the ability to provide innovative, creative, and ethical integrated solutions for Intelligent Systems.
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Produce graduates who can work globally and engage in research and life-long learning.

DURATION INTAKES

3 Years February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs with credit in Mathematics at SPM or its
- UEC: Minimum 5Bs (including English and Mathematics)
- GCE A-LEVEL: Minimum 2Es with 5 credits in GCE O Level / SPM (including English and Mathematics)
- FOUNDATION / MATRICULATION : Pass with minimum CGPA 2.0 with credit in Mathematics in SPM or its equivalent
- DIPLOMA: Pass minimum CGPA 2.5 with a credit in Mathematics in SPM or its equivalent
- . OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Software Engineering (MSE) or Master of Business Administration (MBA) programme with special Alumni tuition fees.

CAREER OPPORTUNITIES

- Bia Data Analysis
- Information Systems Development Information Systems Management
- Business Analysis
- Web Development
- Database Administration
- Information Systems Analysis
- Business Applications Development

PROGRAMME CONTENTS

YEAR 1

- Basic Computing Principles
- Systems Analysis and Design
- Programming Methods
- Computer Ethics and Cyber Law
- Web Design Principles
- Database Systems
- Structured Programming
- Internet Programming & Applications
- Principles of Management
- Principles of Marketina

YEAR 2

- IT Project Management
- Database Management Systems
- Business Intelligence
- Entrepreneurship and Enterprise Management
- · Management Information System
- Managing People and Organisation Software Development
- E-Commerce Infrastructure and Technologies
- Multimedia Systems
- Business Research Methods
- Social Media Marketina

YEAR 3

- Project 1
- Data Science and Big Data Analytics
- Mobile Platform Programming
- Supply Chain Management
- Elective I
- Elective II
- Project 2
- Data Warehousing and Data Mining
- Enterprise Resource Planning
- Ethics in Business
- Flective III
- Flective IV

- Risk Management
- Human Computer Interaction - Large-Scale Computing
- Elective III & IV:
- Organisational Development Management
- Cloud Computing
- Distributed System
- *Upon completion of Year 2, students are required to undergo 12 weeks of industrial training.

BACHELOR OF INFORMATION TECHNOLOGY (NETWORKING AND SECURITY) (HONS)

R/482/6/0139(MQA/FA8882)03/27

This programme equips students with a broad range of knowledge and technical skills in information technology, networking and cybersecurity. Students will study modules focusing on system analysis & design, computer architecture, cyber security, computer forensics, biometric technology, ethical hacking, Internet of Things and cloud computing. Emphasis is placed on network security, wireless and mobile security. Also, students will undergo internships where they will gain hands-on experience.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with knowledge and technical competencies in Computer Networking and Security for today's dynamic IoT, Mobile Communications, Large-scale Systems, and Cloud Computing
- Equip students with the ability to provide innovative, creative, and ethical integrated solutions for Computer Networking and Security.
- Equip students with the ability to design, configure and manage network infrastructure and security.
- Equip students with communication, teamwork, leadership, entrepreneurial, and social skills.
- Produce graduates who are mindful of social, ethical and professional practices to work globally and engage in research and life-long learning.

DURATION INTAKES

3 Years February, June, September

ENTRY REQUIREMENTS

- STPM: Minimum 2Cs with credit in Mathematics at SPM or its
- UEC: Minimum 5Bs (including English and Mathematics)
- GCE A-LEVEL: Minimum 2Es with 5 credits in GCE O Level / SPM (including English and Mathematics)
- FOUNDATION / MATRICULATION : Pass with minimum CGPA 2.0 with credit in Mathematics in SPM or its equivalent
- DIPLOMA: Pass minimum CGPA 2.5 with a credit in Mathematics in SPM or its equivalent
- OTHER QUALIFICATIONS: Equivalent qualifications which are recognized by the Malaysian Qualifications Agency (MQA)

EDUCATION PATHWAYS

Entry into our full-time/part-time Master of Software Engineering (MSE) or Master of Business Administration (MBA) programme with special Alumni tuition fees.

CAREER OPPORTUNITIES

- Cyber Security
- Network Administration
- Network Maintenance
- IT Infrastructure
- Data Centre Infrastructure
- Network Consultancy Network Analysis
- Network and Security Policy
- · Analysis and Management

PROGRAMME CONTENTS

YEAR 1

- Basic Computing Principles
- · Systems Analysis and Design
- Programming Methods Computer Ethics and Cyber Law
- Web Design Principles
- Mathematics for Computing
- Computer Architecture Database Systems
- Structured Programming
- Internet Programming & Applications Discrete Mathematics
- Fundamentals of Network Security

YEAR 2

- IT Project Management
- Statistics
- · Operating Systems Web Administration
- Computer Networks
- Introduction to Computer Forensics
- Software Development
- Object-oriented Programming Data Structures and Algorithms
- Wireless and Mobile Network Security Biometric Technology

YEAR 3

- Proiect 1
- Ethical Hacking Wireless and Mobile Communications

- Internet of Things for Mobile Computing Distributed Systems

Elective I & II:

- Research Methodology - Artificial Intelligence
- Mobile Platform Programming - Mandarin Language (Basic)
- Elective III & IV:
- Real-time Analysis and Design
- Natural Language Processing - Mandarin (Higher Basic)

*Upon completion of Year 2, students are required to undergo 12 weeks of industrial training.

MASTER OF SOFTWARE ENGINEERING

N/481/7/0807(MQA/FA9799)05/23

This full-time/part-time programme equips graduates and working professionals with advanced knowledge and skills in software engineering to meet industry standards. Students will study modules focusing on advanced data structure and algorithm, big data technology, software security, cloud computing technology and agile software development. These will empower them to evaluate business opportunities, design effective electronic marketing strategies, materialise innovative software design ideas, develop automated speech processing systems, and organise & manage software development research.

THE PROGRAMME OBJECTIVES ARE TO:

- Equip students with advanced knowledge and enhanced technical competencies in software engineering for today's dynamic IoT and Cloud Computing environment.
- Enhance students' communication, teamwork, leadership, entrepreneurial, and social skills.
- Equip students with advanced skills to design innovative, creative, and ethical integrated software solutions.
- Produce graduates with entrepreneurial skills, who can work globally and continue in research and life-long learning.

DURATION

Full time: 1 Year Part time: 2 Years

INTAKE

January, May, September

ENTRY REQUIREMENTS

- Bachelor's Degree or its equivalent, with a minimum CGPA of 2.75
- Bachelor's Degree or its equivalent, with a minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment process
- Bachelor's Degree or its equivalent, with CGPA less than 2.50, with a minimum of 5 years working experience in a relevant field may be accepted
- For candidates without Computing Degree, prerequisite modules in computing must be offered to adequately prepare them for their advanced study.

PROGRAMME CONTENTS

YEAR 1

- Research Methodology
- IT Project Management
- Software Architecture
- Advanced Programming and Software
 Development
- Entrepreneurship and Innovation
- Requirements Analysis and Specification
- Advanced Data Structure and Algorithm
- Professional Practice
- Software Testing and Maintenance
- Research Project 1
- Research Project 2
- Formal Methods for Software Engineering
- Elective I
- Elective II

Elective I & II:

- Strategic Marketing Management
- Big Data Technology
- Automatic Speech Processing and Application
- Software Security
- Cloud Computing Technology and Architecture
- Agile Software Development

CAREER OPPORTUNITIES

- Software Process Engineering
- Software Architecture
- Software Development Consultancy
- Software Project Management
- Software Configuration Design and Integration
- · Mobile Application Development
- IT Infrastructure & Consultancy

BEST PROJECTS

Year	Course	Outstanding Projects
2020	Engineering	Powerful Antenna for WifiIOT Traffic Light Management System
	Computing	 Parking Locator - Deep Learning algorithm in Anticipation of Parking Vacancy during Peak/Non Peak Hours NotoCert - Implementing Block Chain Concept to Ensure Genuineness of Certificate issued.
2019	Engineering	 Focus Drive: Fatigue Alert System Non-Destructive Mechanical Defect Detection using Holographic Technique
	Computing	Commercial AI3D Piano Guru
2018	Engineering	 Modelling and Simulation of (OWC): Vertical Links Design of A Climbing Robot
	Computing	 OOTD-Social Fashion Platform with Augmented Reality Indoor Positioning System using Wi-Fi Localization Technique
2017	Engineering	 Automated Farming Eco-system Controller The Design of a HDL Based Configurable Booth Multiplier
	Computing	 AR Application using Fiducial Marker 3D-Stereoscopic Pre-Historic Animal Museum
2016	Engineering	 Autonomous Granting Visitation Permission Using Android-Based Smartphone Entering Offices in a Building Greenhouse Monitoring and Control System with IoT Connectivity
	Computing	 Right-Brain Development Tool for Toddlers Intelligence Decision Support System for Depressed Individual
2015	Engineering	 3-Axis Accelerometer Based Motorised Wheelchair Motion Controller Automatic Sprinkler System for Air-Conditioner
	Computing	 Smart Baker with Speech Recognition Pre-Consultation Chatbot for Public Hospitals
2014	Engineering	Sign Language Learning Kit
	Computing	Mobile-based Distributed Diary System (iOS)
2013	Engineering	Intelligent Traffic Guidance System
	Computing	An Augmented Reality Mobile Classifieds (iOS)

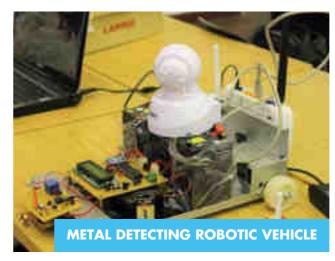
MAJOR INDUSTRY & STUDENT PROJECTS





IMAGE PROCESSING BY USING POWER SPECTRAL DENSITY (PSD) MODEL (THROUGH FAST FOURIER TRANSFORM ALGORITHM) TO EXTRACT THE FRACTAL DIMENSION









MAJOR AWARDS





JASVINA MAE A/P EALN DAVAN Bachelor of Software Engineering (Hons)

MERIT AWARD

Institute of Electrical and Electronics Engineers (IEEE) FYP Anticipation of Parking 2020



PANG HAO JIE BSc (Hons) Software Engineering

DISTINCTION AWARD

E-Genting Bug Hunt 2018 Competition SIAH KAH CHUN BSc (Hons) Software Engineering

DISTINCTION AWARD

E-Genting Bug Hunt 2018 Competition JASVINA MAE A/P EALN DAVAN Bachelor of Software Engineering (Hons)

MERIT AWARD

E-Genting Bug Hunt 2018 Competition









FIRST CITY UC TEAM 1st RUNNER UP

BEng (Hons) Electrical and Electronics

- NICHOLAS TENG LEK SEE
- MAH WEY SEN WINSON
- YAP YI XIEN

Diploma in

• CALEB LIM LEE

Mechatronics
• GHOLAMALI

SHAMSKHOOZANI
sia Pacific University Robotic

SUCCESSFUL GRADUATES & ENTREPRENEURS



CHOO HAN LIM

Software Engineer, Axflix Technologies

Master of Software Engineering (Year 2021)

Graduating from the Master of Software Engineering programme has greatly improved my career profile and sharpened my skills in the Software Engineering field. I have gotten a huge advancement in my career and become more competitive with the skills acquired throughout the course.



LIEW WEI-JENN

Content Writer, Sunway Pals

Bachelor of Information Systems (Honours) in Business Management (Year 2021)

It has been quite the interesting journey. The courses were challenging but the lecturers were always there to lend a hand. They were probably the most patient and understanding educators that I've ever met who truly cared about a student's development and progress.



LIEW SOON JING

Fullstack Developer, Mercedes Benz

Bachelor of Software Engineering (Hons) (Year 2020)

The best thing about FCUC is the lecturers. They taught and guided us patiently even if we asked multiple times. I wish to give a special mention to Mr Cham and Ms Sin Chee. I can say that they really put their blood and sweat into not just teaching us according to the structured program, but also teaching us additional knowledge that really helped us when we started working. That was the most important point for me.

While FIRST CITY UNIVERSITY COLLEGE has made every effort to ensure that information presented in this brochure is as accurate as possible at time of printing, it does not accept liability for any error or omission. FIRST CITY UNIVERSITY COLLEGE reserves the right not to conduct a programme/course/option/subject.



JASVINA MAE A/P EALN DAVAN

Bachelor of Software Engineering (Hons) (Year 2020)



CHAN CHE WEI

Technology Associate, MoneyMatch

Bachelor of Computer Science (Intelligent Systems) (Hons) (Year 2020)



JOSEPH ONG

Programmer, E-Genting Sdn Bhd

Bachelor of Software Engineering (Hons) (Year 2019)



AU YEONG KHAI WENG

Chief Technology Officer, Ouch Free Sdn. Bhd

BEng (Hons) Electronics & Computing (Year 2014)



PHANG JO YEE

Community Manager, Marketing & Partnerships, Beam Mobility

BSc (Hons) Information & Communications Technology (Year 2013)



KUSALA SAMARASINGHE

Head of Product Development and Delivery, Sensor Dynamics (Australia)

Bachelor of Software Engineering (Hons) (Year 2011)



ENG LIAN XUN

Co-founder Software Specialist, Lava X

Bachelor of Software Engineering (Hons) (Year 2009)



CHRIS LEONG

Chief Strategy Officer, Soft Space Sdn Bhd

> BEng (Hons) **Electronics & Computing** (Year 2002)



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Quality Education 1 Ideal Location

F1RST CITY UNIVERSITY COLLEGE DKU031(B)

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