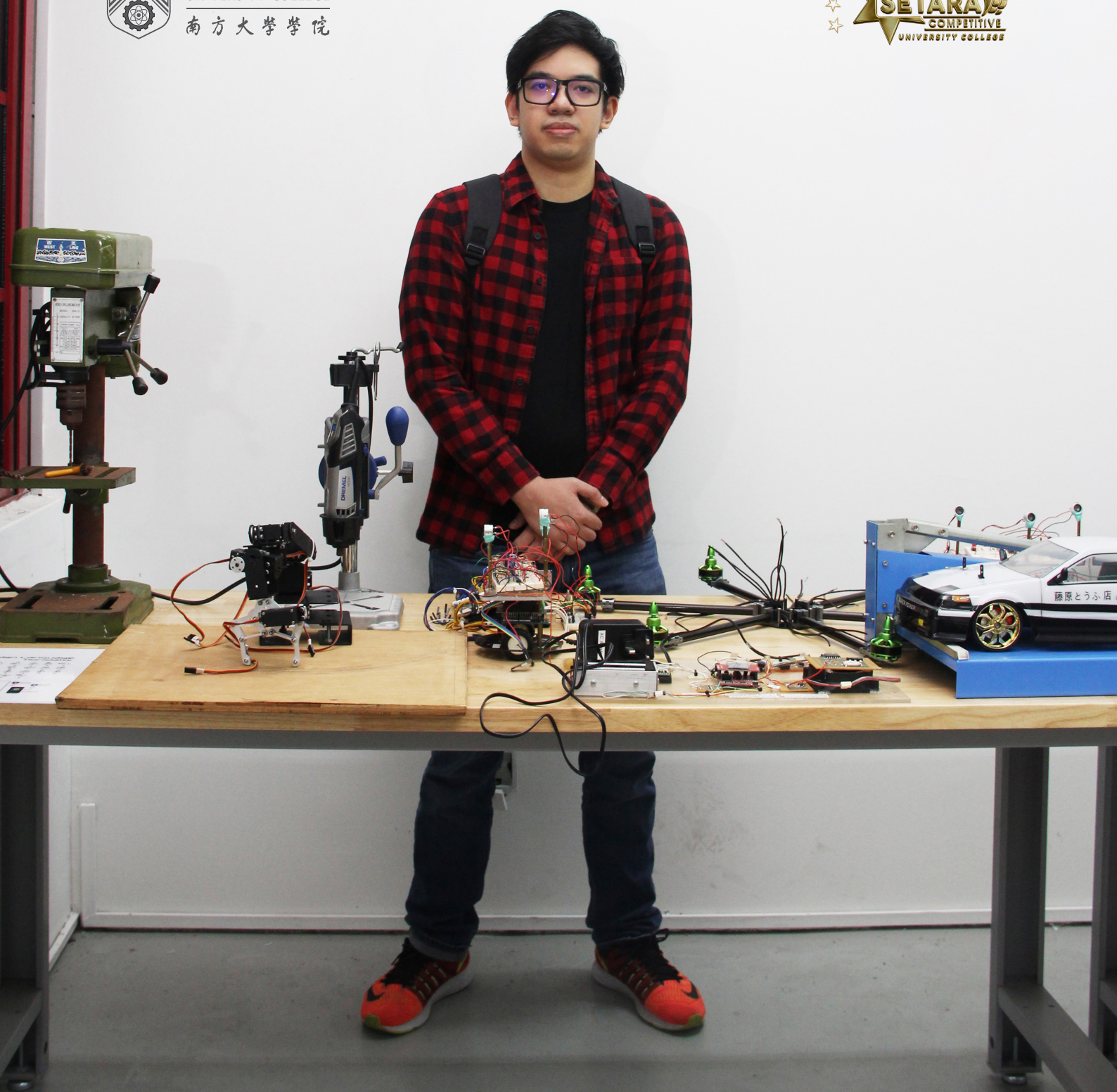


FACULTY OF ENGINEERING & INFORMATION TECHNOLOGY 工程与资讯学院



SOUTHERN
UNIVERSITY COLLEGE
南方大学学院



Faculty of Engineering & Information Technology

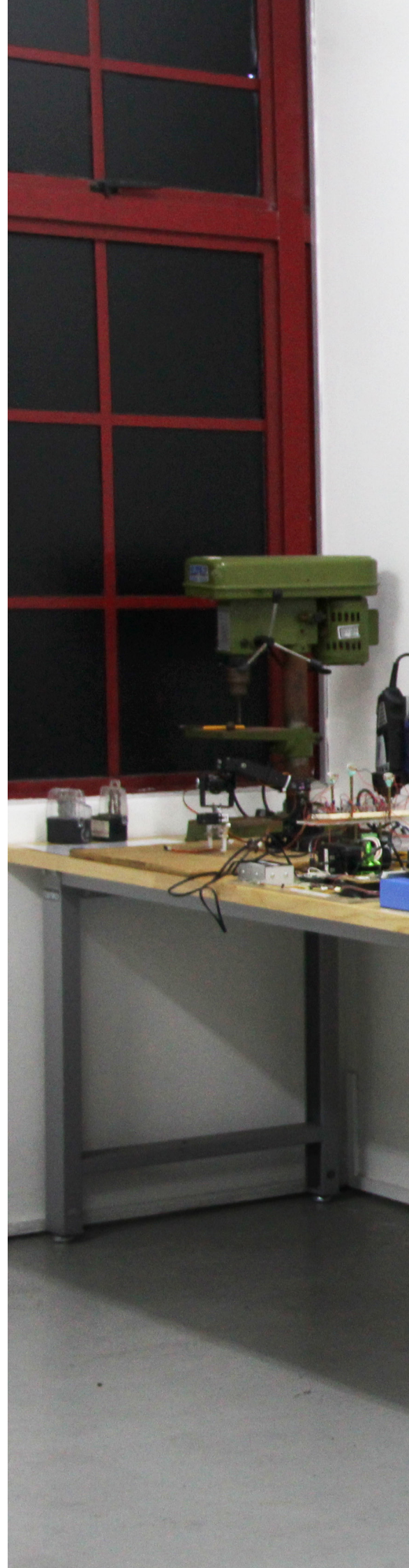
工程与资讯学院

Welcome! The Faculty of Engineering and Information Technology (FEIT) serves as a platform through which higher education in engineering and information technology in specified areas is imparted to students. Our overarching goal is to cultivate students who are able to think out of the box in facing challenging problems. We have faith our graduates to be passionate engineers and IT experts who are committed to improving the quality of human life through the innovation of technology.

FEIT offers undergraduate degrees in two majors: Electronics Engineering (4 years' program) and Software Engineering (3 years' program). It comprises engineering mathematics, physics, basic electronics, programming, engineering design, engineering related to IR4.0 for Electrical and Electronics Engineering (EE) students. On the other hand, Software Engineering students will learn logic, database, networking and programming. Besides, we also offer two diploma programs: Diploma in Electrical & Electronic Engineering, and Diploma in Information Technology.

欢迎！工程与资讯学院（FEIT）是一个平台，通过该平台向学生传授特定领域的工程和资讯科技高等教育。我们的首要目标是培养能够在面对挑战性问题时跳出特定思维的学生。我们相信我们的毕业生是充满激情的工程师和资讯科技专家，他们致力于通过创新技术来提高人类生活质量。

工程与资讯学院（FEIT）提供两个专业的本科学位：电子工程（4年制）和软件工程（3年制）。它提供包括工程数学、物理、基础电子学、编程、工程设计、与工业革命相关的工程给予电机和电子工程（EE）的学生。另一方面，软件工程的学生将学习逻辑、数据库、网络和编程。此外，我们还提供两个文凭课程：电机与电子工程专业文凭和资讯科技专业文凭。





Courses

Diploma in **Information Technology**
Diploma in **Electrical & Electronic Engineering**
Bachelor of **Software Engineering (Honours)**
Bachelor of **Electronic Engineering with Honours**

Faculty of Engineering & Information Technology 工程与资讯学院

One key point to choose our faculty is that all our diploma and degree programmes has gained the accreditation by the Malaysian Qualifications Agency (MQA). The recent achievement of our faculty is that the Engineering Technology Accreditation Council (ETAC) Malaysia has accredited the Diploma in Electrical and Electronic Engineering programme (BEM/ETAD/02-71/DA/03-02-61(001)). In addition, Bachelor of Electronic Engineering with Honours has obtained accreditation from the Engineering Accreditation Council (EAC) Malaysia (BEM/EAD/02-71/WA/03-2(003)). EAC and ETAC accreditation ensures that all accredited engineering programs' graduates satisfy the minimum academic requirements to register with the Board of Engineers Malaysia (BEM) to practice engineering and engineering technician in Malaysia as graduate engineers and inspectors of works (IOW). It is also part of the admission requirement to the Institute of Engineers Malaysia (IEM) as graduate membership. Graduate Engineer with BEM and member of IEM provide an eligible path for graduates to apply for Professional Engineer (Ir.) in the future. With the EAC and ETAC recognition, the programmes will have mutual international recognition, such as with the European and Asian networks, apart from Washington Accord and Dublin Accord.

Currently, the faculty has more than 40% of the teaching staff who are Ph.D holders specializing in different fields of study. Besides, more than 40% of the teaching staff have strong industry working experience, which can enrich student knowledge.

选择我们院系的一个关键点是我们所有的文凭和学位课程都获得了马来西亚资格认证机构 (MQA) 的认可。我们院系的最新成就就是马来西亚工程技术认证委员会 (ETAC) 已认证电机和电子工程专业文凭课程 (BEM/ETAD/02-71/DA/03-02-61(001))。此外, 电子工程荣誉学士学位 (BEM/EAD/02-71/WA/03-2(003)) 已获得马来西亚工程认证委员会 (EAC) 的认证。EAC 和 ETAC 的认证是确保所有获得认证的工程学系的毕业生满足最低学术要求, 以便在马来西亚工程师委员会 (BEM) 注册, 以及作为毕业工程师及工程师委员会的工作检查员在马来西亚实践工程设计及工程技术。这也是马来西亚工程师学会 (IEM) 作为毕业生会员的注册的要求的一部分。拥有马来西亚工程师委员会 BEM 和马来西亚工程师学会 IEM 的资格成员的毕业工程师提供了未来申请专业工程师 (Ir.) 的合格途径。有了马来西亚工程认证委员会 EAC 和马来西亚工程技术认证委员会 ETAC 的认可, 这些专业文凭及学位将得到国际上的相互认可, 例如除了华盛顿协议和都柏林协议之外的欧洲和亚洲网络。

目前, 本院拥有超过40%的具有博士学位的教学人员, 从事不同的专业研究领域。此外, 40%以上的师资队伍具有深厚的行业工作经验, 可以丰富学生的知识面。



Professional Recognition 专业资格认证



Lembaga Jurutera Malaysia (BEM)



ENGINEERING ACCREDITATION COUNCIL MALAYSIA

Engineering Accreditation Council Malaysia



Engineering Technology Accreditation Council

Diploma in Information Technology

资讯科技专业文凭

R2/482/4/0190(A10844)10/24

Course Duration: 2 Years 3 Months

Course Introduction 课程介绍

Based on the information technology, business organization and industrial needs, the curriculums are designed to provide the student with the techniques and knowledge in the applications and process of Information technology, as well as to train the students to be excellent at organizational needs analysis and information. With both computer and business organization knowledge so that they will be able to enter into the employment market with the advantages of strong technical skills.

课程以信息技术、企业组织和行业需求为出发点，旨在为学生提供信息技术应用和过程中的技术和知识，培养学生在组织需求分析和信息化方面的能力。拥有计算机和商业组织知识，使他们能够以强大的技术技能优势进入就业市场。

Course 课程

Core Modules 主修科目

- Fundamentals of Software Design and Development 软件设计与开发原理
- System Analysis and Design 系统分析与设计
- Database System Design 资料库系统设计
- Networking and Distributed System 网络与分散式系统
- Computer Organization and Architecture 电脑组织与架构
- Operating System 作业系统
- System Security and Control 系统安全与控制
- Project I 专题 I
- Project II 专题 II

University College Core Modules 大学主修科目

- Communicative English 交际英语
- Basic Chinese/ Introduction to Chinese Culture 基础华文/中国文化概论

Concentration Modules 专科科目

- Business Information System 商业资讯系统
- Mathematics for Computing 电脑数学
- Calculus and Algebra 微积分与代数
- Statistics and Probability 统计与机率学
- Internet Application 互联网络应用
- Introduction to Multimedia 多媒体简介
- Software Development 软件开发
- Object-oriented Programming 物件导向程式设计

- Data Structure and Algorithm 资料结构与演算法
- Project Management 专案管理
- Web-based Systems 网页系统

Elective Modules 选修科目

Departmental Elective 电脑系选修科

- Multimedia Design 多媒体设计
- Human Computer Interaction 人机互动
- Software Engineering 软件工程
- Strategic Information Systems 战略信息系统

University College Elective 大学选修科

- General English 通用英语
- Fundamental of Mathematics 基础数学
- Advanced Mathematics 高级数学

Industrial Training 工业培训

Entry Requirements 入学资格

- **SPM/O-Level:** 3 credits and including Mathematics
- **UEC:** Grade B in 3 subjects and including Mathematics
- **Others:** Other recognized equivalent qualifications

Career Opportunities 工作机会

- Programmer 程式设计师
- Web Designer 网站设计者
- Software Developer 软件开发人员
- Network Engineer 网络工程师
- System Engineer 系统工程师
- IT Administrator 资讯科技管理人员
- Database Administrator 资料库管理人员
- Database Engineer 资料库工程师

Diploma in Electrical & Electronic Engineering 电机与电子工程专业文凭

R2/523/4/0308 (MQA/FA13364) 04/24

Course Duration: 2 Years 6 Months

Course Introduction 课程介绍

Founded in 2004, we have established a reputation in teaching electronics engineering courses to diploma and degree students in Southern region of Malaysia. The department has produced graduates that meet the needs of the country. In order for doing so, we have carefully designed and reviewed from time to time the course curriculums to meet the quality set by ETAC and MQA.

We have good reasons for students to consider our diploma and degree courses. Firstly, we have a strong team of teaching staff: they are either PhDs or Masters, having many years of teaching, research and working experience in diverse fields. Some of them even did their research in Europe and USA. Secondly, we have up-to-date and good lab facilities: electronics labs, computer labs, and automation lab that worth over millions of ringgit. Thirdly, small class teaching style, this enables students to have a closer interaction with lectures. Fourthly, good teaching and learning environments.

我们成立于2004年，并为马来西亚南部地区教授电子工程课程。我们精心设计和不时审查课程课程，以满足ETAC和MQA设定的质量并培养符合国家需求的毕业生。

我们有充分的理由让学生考虑我们的专业文凭和学位课程。首先，我们拥有一支强大的师资队伍：在不同领域拥有多年的教学、研究和工作经验的硕士与博士。其中，一些教职人员甚至曾在欧洲和美国进行研究。其次，我们拥有最新和良好的实验室设施：价值超过数百万令吉的电子实验室、电脑实验室和自动化实验室。第三，小班授课，让学生与教职员有更密切的互动。还有良好的教学环境。

Course 课程

Core Modules 主修科目

- C++ Programming C++程式语言
- Technical Mathematics 技术数学
- Calculus I 微积分 I
- Calculus II 微积分 II
- Engineer and Society 工程师与社会

Concentration Modules 专科科目

- Digital Techniques I 数码电子I
- Digital Techniques II 数码电子II
- Microprocessors 微处理器
- Physics I 物理 I
- Physics II 物理II
- Electric Circuits I 电路学I
- Electric Circuits II 电路学II
- Electronics I 电子学I

- Electronics II 电子学II
- Project & Practice I 毕业专题制作 I
- Project & Practice II 毕业专题制作 II
- Software application & Simulations 软件应用与模拟 I
- PLCs 可编程式逻辑控制器
- Power Electronics and Electric Machines 电力电子和电机

University College Elective 大学选修科

- General English 通用英语
- Fundamentals of Management 管理基础
- Basic Power System 基本电力系统

Industrial Training 工业培训

Entry Requirements 入学资格

- **SPM/O-Level:** 3 credits including Mathematics and General Science/ Physics / Chemistry / Engineering related subject
- **UEC:** Grade B in 3 subjects including Mathematics and General Science/ Physics / Chemistry / Engineering related subject
- **Others:** Other recognized equivalent qualifications

Career Opportunities 工作机会

Technician/ Assist. Engineer/ Supervisor
技术员 / 助理工程师 / 主管

- Maintenance 维修
- Service 服务
- Sales Technician 销售技术员
- Product Technician 产品技术员
- Computer 电脑
- Medical医药
- Site/ Field 现场/ 工地
- etc.

In any related field, including 在任何相关领域，包括:

- Electrical Engineering 电机工程
- Electronic Engineering 电子工程
- Automation Engineering 自动化工程
- PLCs 可编程式逻辑控制器
- Robotics 机器人技术
- Biomedical Engineering 生物医学工程
- Oil & Gas 石油与汽油
- Industrial Engineering 工业工程
- etc.

Bachelor of Software Engineering (Honours) 软件工程（荣誉）学士学位

R/481/6/0275(MQA/FA2810)04/23

Course Duration: 3 Years 3 Months

Course Introduction 课程介绍

The course will be delivered pedagogically to students by combining concepts, latest information, feasible methods and scientific ways. In doing so, students will learn the essence of software engineering, including the related fields of programming language, system analysis, software design and quality management. Related knowledge will be imparted professionally to students through basic theory, practical projects, and industrial training to enhance students' analytical, programming and software design skills.

课程在教学内容安排上，综合概念，最新知识，适当方法与科学方式。学生能从中研习软件工程的精髓。当中包括了程式语言，系统分析，软件设计与质量管理等相关领域。通过专业的知识教授，基础理论和实际应用，课堂教学与实作软件及学校教育与企业实习等相结合，必能使學生更具备较强的分析能力，程式与软件设计专业能力。

Course 课程

Core Modules 主修科目

- Java Programming I / Java 程式设计I
- Java Programming II / Java 程式设计 II
- Discrete Mathematics 离散数学
- Quantitative Methods 数据法
- Introduction to Information Technology 资讯科技简介
- Data Structure and Algorithm 资料结构与演算法
- Database Systems 资料库系统
- Information Security and Assurance 资讯安全与保全
- Software Engineering 软件工程
- Computer Organization and Architecture 电脑组织与架构
- Human Computer Interaction 人机互动
- Object-Oriented Programming 物件导向程式设计
- Software Testing 软件测试
- Introduction to Networks and Communication Systems 网络和通信系统
- Operating System 作业系统
- Software Design 软件设计
- Software Evolution and Maintenance 软件演进与维护
- Software Process 软件流程
- Social and Professional Issues 社会与专业议题

Concentration Modules 专科科目

- Project Management 专案管理
- Software Quality 软件质量
- Object-Oriented System Modeling and Analysis 物件导向系统模式与分析
- Web Development 网络开发

Elective Modules 选修科目

Departmental Elective 电脑系选修科

- Advanced Networks & Communications 高级网络和通信
- Mobile Application Development 移动应用程序开发
- Fundamental of Image Processing 图像处理基础
- Multimedia Design 多媒体设计
- Artificial Intelligence 人工智能
- Digital Media Marketing 数码媒体营销
- Internet Applications 互联网应用

Final Year Project 毕业论文

- Final Year Project I 毕业论文I
- Final Year Project II 毕业论文II

Industrial Training 工业培训

Entry Requirements 入学资格

- **STPM/A-Level:** 2 principal passes and credit in Additional Mathematics in SPM
- **UEC:** Grade B in 5 subjects, including Advanced Mathematics
- **Foundation:** Pass with minimum CGPA of 2.0 and credit in Additional Mathematics in SPM
- **Diploma:** Pass with minimum CGPA of 2.5 and credit in Additional Mathematics in SPM
- **Others:** Other recognized equivalent qualifications

Career Opportunities 工作机会

- Programmer 程式设计师
- Software Engineer 软件工程师
- Software Developer 软件开发人员
- Project Manager 专案经理
- System Analyst 系统分析师
- Software Quality Executive 件品质执行员
- IT Consultant 资讯科技顾问
- System Support and Maintenance 系统支援与维护

Bachelor of Electronic Engineering with Honours 电子工程（荣誉）学士学位

R/523/6/0170(MQA/FA4009)11/24

Course Duration: 4 Years

Course Introduction 课程介绍

This course is designed for those who wish to broaden their knowledge in electronics engineering and be engineers after graduating. Its main objectives are to train students in the aspects of analysis and design, practical and project handling and problem solving skills. In doing so, we hope our graduates will be equipped with a solid foundation upon joining employment and with the necessary skills to meet the challenges in the fields of engineering today.

此课程是针对那些想将来成为受认可的工程师以及想更深入了解关于电子工程知识的学生而设计的。此课程的主要目标在于培训学生在电子工程的分析与设计技巧，实际的计划管理以及解决难题的能力。在此过程中，我们希望毕业生能够在就业时打下坚实的基础，并具备应对当今工程领域挑战的必要技能。

Course 课程

Common Core 通用科目

- Engineering Mathematics I 工程数学 I
- Engineering Mathematics II 工程数学 II
- Engineering Mathematics III 工程数学 III
- Physics for Engineering Students 理工科学学生的物理学

Discipline Core 核心学科科目

- Basic Control Theory 基本控制系统理论
- C Programming C程式语言
- Digital Electronics I 数码电子学 I
- Digital Electronics II 数码电子学 II
- Engineer and Society 工程师与社会
- Digital Signal Processing 数码信号处理学
- Electric Circuit I 电路学 I
- Electric Circuit II 电路学 II
- Electronic Circuit I 电子电路学 I
- Electronic Circuit II 电子电路学 II
- Electronic Instrumentation and Measurements 电子仪器与测量学
- Engineering Economics & Finance 工程经济与金融
- Engineering Electromagnetic 工程电磁学
- Engineering Statistics 工程统计学
- Fundamentals of Telecommunication 电讯基础学
- Logic System Design 逻辑系统设计
- Microcontrollers & Microprocessor Systems 微控制器与微处理器系统学
- Microelectronics 微电子学
- Basic Power System & Electric Machines 基本电力系统与电机
- Power Electronics 电力电子学
- Programmable Logic Controllers 可编程式逻辑控制器
- Project & Practice I 毕业专题制作 I
- Project & Practice II 毕业专题制作 II
- VLSI System Design 超大规模集成电路系统设计
- Capstone Project I 顶点项目 I
- Capstone Project II 顶点项目 II

Elective Modules 选修科目

- Artificial Intelligence 人工智能
- Embedded System Design 嵌入式系统设计
- Digital Image Processing 数码图像处理
- Power System Analysis 电力系统分析
- Power Transmission & Distribution 电力传输与分配
- Modern Control System 现代控制系统
- Computer Architecture and IOT 计算机体系结构和物联网
- Machine Learning with Python 运用 Python 机器学习
- Computer Aided Drawing 电脑辅助绘图
- Internet Application 互联网应用

Entry Requirements 入学资格

- **STPM/A-Level:** 2 principal passes and including Mathematics and Physics / Chemistry subjects
- **UEC:** Grade B in 5 subjects, including Mathematics and Physics / Chemistry / Engineering related subject
- **Foundation:** Pass with minimum CGPA of 2.0 in related field
- **Diploma:** Pass with minimum CGPA of 2.0 in related field
- **Others:** Other recognized equivalent qualifications
- ATAR 65, minimum of scaled score 50 for mathematics and one natural science

Career Opportunities 工作机会

Engineer/ Junior Engineer/ Senior Engineer/ Executive
工程师/初级工程师/高级工程师/执行官

- Maintenance/ Service/ Test 维护/服务/测试
- Technical Sales Engineer 销售技术工程师
- Project Engineer 项目工程师
- Product Specialist 产品专员
- Computer Engineer 电脑工程师
- Research and Development (R&D) 研究与开发
- Planner 规划师
- Medical Engineering 医学工程
- Manufacturing 制造业
- Design 设计
- IC Design IC 设计
- etc.

In any related field, including 在任何相关领域，包括:

- Electrical Engineering 电机工程
- Electronic Engineering 电子工程
- Micro/ Nano Electronic Engineering 微/纳米电子工程
- Automation Engineering 自动化工程
- PLCs 可编程式逻辑控制器
- Robotics 机器人技术
- Telecommunication 电信
- Biomedical Engineering 生物医学工程
- Oil & Gas 石油与汽油
- Industrial Engineering 工业工程
- etc.

Facilities of Faculty

学院设施



Computer Lab



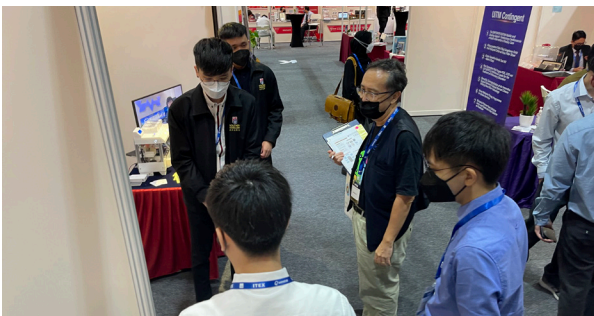
Electrical & Electronic Engineering Laboratory



PCB Laboratory

Activities of Faculty

学院活动





SOUTHERN
UNIVERSITY COLLEGE
南方大學學院

No Perakuan Pendaftaran: DKU 019(J)

Southern University College (198704v)

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