



(Company No. 101067-P)

الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يُونِيسَيْتِي اِسْلَامْ اَنْتَارَايَحْسَا مِلْدَسِيَا

Garden of Knowledge and Virtue

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

KULLIYAH OF INFORMATION AND
COMMUNICATION TECHNOLOGY (KICT)

UNDERGRADUATE PROGRAMS

2019 / 2020





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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يُونُسُ بْنُ سَيِّدِي إِسْلَامُ أَنْتَ أَرَبُّنَا بِمِلَّةِ سَيِّدِنَا

Garden of Knowledge and Virtue

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

KULLIYAH OF INFORMATION AND COMMUNICATION TECHNOLOGY (KICT)

The Kulliyyah of Information and Communication Technology (KICT) was established in November 2001. From that moment, KICT has made necessary moves to realize its vision, which is to produce knowledge workers equipped with ICT skills and knowledge (Ilm) and the Consciousness of God (Taqwa).

This Kulliyyah is the combination of the Department of Information Systems (DIS), Department of Computer Sciences (DCS), and Department of Library and Information Science (DLIS). All programmes in the Kulliyyah are designed for integration of Islamic knowledge and ICT.

The Kulliyyah has the mission to promote collaboration with other universities and industries, both nationally and internationally, in teaching, learning, research, and consultancy, to establish a center of excellence for each department in KICT, and to advance research and development in creating a value-based information system.

KICT also aspires to initiate and develop more rigorous programmes in the area of information and communication technology. It places a great emphasis on providing excellent programmes and teaching resources in order to enhance the quality of learning and research. It is expected that students will find a unique set of opportunities available to study for both undergraduate and postgraduate programmes.

KICT UNDERGRADUATE PROGRAMS

INFORMATION SYSTEMS DEPARTMENT **BACHELOR OF INFORMATION TECHNOLOGY**

The Bachelor of Information Technology (BIT) programme is offered by the Department of Information Systems (DIS) at Kulliyah of Information & Communication Technology (KICT). The programme is focused on providing the foundation and up-to-date knowledge in the discipline of Information Technology. The overall aim of the programme is to nurture holistic, balanced and entrepreneurial ICT professionals with wisdom, anchored by the spirit of Tawhid and God consciousness in line with the needs of the nation, Ummah and all Mankind.

in the final year of the program, participants will be required to pick one of the four specialization courses, or taking a general specialization including courses from all four specializations listed below.

- 1. Digital Media Design.**
- 2. Enterprise Technology Managment.**
- 3. Information Assurance & Security.**
- 4. Bussiness Inteligance & Analytics.**

DIGITAL MEDIA DESIGN

WHY YOU SHOULD JOIN US?

WHAT ARE YOU STUDYING?



WE UNDERSTAND THE MULTIMEDIA INDUSTRY WILL CONTINUE TO EXPAND AND EVOLVE, WITH EVER-EMERGING TECHNOLOGY. YOU WILL ACQUIRE INDUSTRY RELATED SKILLS IN ANIMATION, 3D MODELLING, DIGITAL VIDEO, AUDIO, MEDIA AND COMMUNICATION DESIGN FOR ELECTRONIC MEDIA.

About



OPPORTUNITY TO EXPLORE THE LATEST KNOWLEDGE AND SKILLS NEEDED TO CREATE A WIDE RANGE OF ONLINE MEDIA. WE PROVIDE YOU WITH AN UNDERSTANDING OF THE THEORIES, CREATIVE METHODS AND TECHNICAL SKILLS USED IN THE MULTIMEDIA INDUSTRIES TODAY.

BY THE TIME YOU GRADUATE, YOU'LL HAVE THE CONFIDENCE AND SKILLS TO APPLY YOUR KNOWLEDGE TO THE WORKPLACE. FUTURE CAREERS CAN BE FOUND IN ART DIRECTION, DESIGN, DEVELOPMENT, INTERNET MARKETING AND MORE.



**90%
GRADUATES**

GETTING THEIR JOB
IN 6 MONTHS AFTER
THEY GRADUATE



What do We Learn About?

MULTIMEDIA DESIGN
WEBSITE DESIGN
2D/3D ANIMATION
GAME DESIGN

Future Career



Core Subjects

INFO 4201

ANIMATION TECHNIQUE

INFO 4203

CREATIVE DESIGN TECHNIQUE

INFO 4204

DIGITAL CONTENT DESIGN

INFO 4205

GAME TECHNOLOGY

Job Prospects

DESIGNING

ANIMATION

GAMING INDUSTRIES

Graph on DMO



BY 2020,
50% REQUIRED
TALENT RELATED
TO DESIGNING

Media Skills in Demand



24%
CREATIVE
MULTIMEDIA

39%
ANIMATION

Salary

UP TO
50K
/MONTH



Source: Glassdoor.com, Payscale.com, Indeed.com, LinkedIn Salary

ENTERPRISE TECHNOLOGY MANAGEMENT

SPECIALIZATION GUIDELINES

WHAT IS ENTERPRISE TECHNOLOGY?

TECHNOLOGIES THAT ARE DESIGNED TO INTEGRATE MULTIPLE FACETS OF A COMPANY'S BUSINESS THROUGH THE INTERCHANGE OF INFORMATION FROM VARIOUS BUSINESS PROCESS AREAS AND RELATED DATABASES. THESE SOLUTIONS ENABLE COMPANIES TO RETRIEVE AND DISSEMINATE MISSION-CRITICAL DATA THROUGHOUT THE ORGANIZATION, PROVIDING MANAGERS WITH REAL-TIME OPERATING INFORMATION (GARTHER)



About

ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS ARE CURRENTLY IN HIGH DEMAND AMONG MALAYSIAN COMPANIES ESPECIALLY THOSE IN MANUFACTURING AND SERVICE BASED INDUSTRIES BECAUSE IT PROVIDES AN EFFECTIVE MANAGEMENT SYSTEM LEADING TO SIGNIFICANT IMPROVEMENTS IN PRODUCTIVITY

90% GRADUATES

GETTING THEIR JOB
IN 6 MONTHS AFTER
THEY GRADUATE



What do We Learn About?

SYSTEM APPLICATION AND PRODUCT
ENTERPRISE RESOURCE PLANNING

Job Prospects

ERP
FRESHER JOB

CHANNEL
SALES SPECIALIST

SAP
CONSULTANTS

BUSINESS
CONSULTANTS

SENIOR
SOLUTION ARCHITECT

SAP
TEAM LEAD

Core Subjects

INFO 3403

CONTROL AND AUDIT OF INFORMATION SYSTEM

INFO 4503

INFORMATION RESOURCE & STRATEGY MANAGEMENT

INFO 4505

KNOWLEDGE MANAGEMENT PRACTICES AND APPLICATIONS

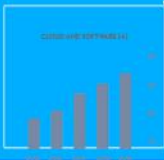
INFO 4506

INTEGRATED BUSINESS PROCESS AND ERP SYSTEMS

Popular Company



Graph on ETIL



BY 2020,
50% REQUIRED
TALENT RELATED
TO ENTERPRISE

Enterprise Skills in Demand



16%
ENTERPRISE
RESOURCE PLANNING

Salary

2.5K -
32K
/MONTH



INFORMATION ASSURANCE & SECURITY

SPECIALIZATION GUIDELINES

WHAT ARE YOU STUDYING?



INFORMATION ASSURANCE & SECURITY (IAS) SPECIALIZATION AIMS TO EQUIP STUDENTS WITH THE KNOWLEDGE ON THE PROTECTION OF INFORMATION AND INFORMATION SYSTEMS (IS) THROUGH MANAGERIAL AND TECHNICAL COUNTERMEASURES THAT ARE DESIGNED TO ENSURE THEIR CONFIDENTIALITY, INTEGRITY, AVAILABILITY (CIA) AND AUTHENTICITY.



About

KNOWLEDGE AND APPLICATION OF INFORMATION SECURITY GOVERNANCE



What do We Learn About?

MANAGEMENT OF INFORMATION SECURITY (CORE)
BUSINESS CONTINUITY & DISASTER RECOVERY (CORE)
RISK MANAGEMENT (CORE)
CONTROL AND AUDIT OF INFORMATION SYSTEMS (CORE)
INFORMATION PRIVACY
PHYSICAL PROTECTIVE SECURITY
WEB APPLICATION SECURITY

Cases of Data Breach



59%
NORTH AMERICA

36%
ASIA / PACIFIC

4%
EUROPE

Biggest Data Breach



2018
MARRIOTT (500M)

2017
EQUIFAX (143M)

2016
ADULT FRIEND FINDER (412.2M)

Job Prospects



SECURITY ANALYST

SECURITY ARCHITECT

CYBER SECURITY SPECIALIST

Graph on AS



BY 2020,
53% REQUIRED
TALENT RELATED
TO SECURITY

Security Skills in Demand



21%
RISK MANAGEMENT
CYBER LAW
DLP

32%
SECURITY MANAGEMENT

Salary Range

2.5K -
20.5K
/MONTH



BUSINESS INTELLIGENCE & ANALYTICS

SPECIALIZATION GUIDELINES

WHAT ARE YOU STUDYING?



THE OBJECTIVE OF THIS SPECIALIZATION IS TO PRODUCE GRADUATES THAT ABLE TO DEMONSTRATE CURIOSITY AND ANALYTICAL MINDSET. THESE GRADUATES SHOULD ALSO BE ABLE TO COMMUNICATE INSIGHTS THAT DELIVER BUSINESS VALUE BASED ON EXPLORATORY AND EXPLANATORY ANALYSIS.

About



KNOWLEDGE AND APPLICATIONS OF DATA ANALYSIS AND MODELLING TO SUPPORT ALL FUNCTIONAL AREAS OF THE BUSINESS.



90% GRADUATES

GETTING THEIR JOB
IN 6 MONTHS AFTER
THEY GRADUATE



What do We Learn About?

DATA WAREHOUSING
DATA MINING
DATA VISUALIZATION
BUSINESS DATA ANALYTICS

Popular Company

Google

SAP

IBM

Core Subjects

INFO 3102

DATA WAREHOUSING

INFO 4101

DATA MINING

INFO 3205

INFORMATION VISUALISATION

INFO 4103

BUSINESS DATA ANALYTICS

Job Prospects

BUSINESS ANALYST

DATA ANALYSIS

DATA STEWARD

DATA ADMINISTRATION

Graph on BA

AMONG THE TOP
8 JOBS THAT
EVERY COMPANY
WILL HIRE BY
2020 BASED WORLD
ECONOMIC FORUM



Analytics Skills in Demand



42%
DATABASE

22%
BIG DATA
& ANALYTICS

Salary

19K -
85K
/MONTH



KICT UNDERGRADUATE PROGRAMS

COMPUTER SCIENCE DEPARTMENT **BACHELOR OF COMPUTER SCIENCE**

The Bachelor of Computer Science programme aims to develop graduates with strong and broad technical knowledge in computer science and technology, as well as to become a new breed of Muslim professionals or intellectuals in computer science field. The department offers the excitement of studying computer science, a field that studies the computers and how they can be used, which has become an integral part of our daily life. The programme is tailored to produce students who are competent to be the key players in the industry. The courses in the programmes will reflect the current development in Information and Communication Technology (ICT) area.

In the final year of the program, participants will be required to pick one of the three specialization courses, or taking a general specialization including courses from all three specializations listed below.

- 1. Software Engineering.**
- 2. Network & Security.**
- 3. Data Science & Computational Intelligence.**

SOFTWARE ENGINEERING

COMPUTER SCIENCE SPECIALIZATION COURSE

WHAT IS THE COURSE ABOUT?

SOFTWARE ENGINEERING IS ABOUT DESIGNING, TESTING, MAINTAINING, AND EVALUATING BUILT SOFTWARE. SOFTWARE ENGINEERS WORK WITH BUSINESSES, GOVERNMENTS, HOSPITALS, NON-PROFITS, AND MORE ORGANIZATIONS AND COMPANIES TO DEVELOP THE SOFTWARE THEY NEED TO RUN CORRECTLY. A SOFTWARE ENGINEER NEEDS TO UNDERSTAND THE DESIRES OF THEIR CLIENTS, SO THEY TYPICALLY WORK WITH PROJECT MANAGERS, CUSTOMER SERVICE, ACCOUNT MANAGERS, AND MORE TO DEVELOP THE BEST SOFTWARE FOR THEM.

What do We Learn About?

DATABASE APPLICATION
SOFTWARE QUALITY
EMPIRICAL METHODS

Job Opportunities

SOFTWARE ARCHITECT



GAME DEVELOPER

APPLICATIONS DEVELOPER



DATABASE ADMINISTRATOR

Companies

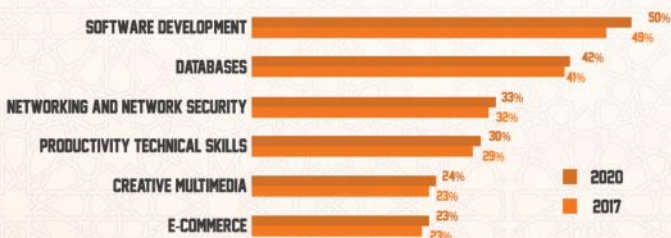


NETWORK AND SECURITY

COMPUTER SCIENCE SPECIALIZATION COURSE



Expected to have Demand-Grow Sectors



What Is It About?

THIS COURSE AIMS TO RESPOND TO THE DEMAND FOR DATA SCIENTISTS WITH THE SKILLS TO DEVELOP INNOVATIVE COMPUTATIONAL INTELLIGENCE APPLICATIONS, CAPABLE OF ANALYSING LARGE AMOUNTS OF COMPLEX DATA TO INFORM BUSINESSES DECISIONS AND MARKET STRATEGIES. BIG DATA PROCESSING AND INFORMATION RETRIEVAL DRIVES SOME OF THE WORLD MOST SUCCESSFUL AND HIGHTECH BUSINESSES; FROM WELLKNOWN COMPANIES LIKE GOOGLE AND TWITTER, TO SPECIALIST MEDICAL INFORMATICS PROVIDERS AND EVEN SPACE EXPLORATION. THE COURSE COVERS 4 MAIN TOPICS..

MACHINE
LEARNING



DATA
SCIENCE

BIG DATA
ANALYTICS



NATURAL
LANGUAGE
PROCESSING

Computer-Science Related Employment Around Klang Valley



DATA SCIENCE AND COMPUTATIONAL INTELLIGENCE

— COMPUTER SCIENCE SPECIALIZATION COURSE —

KULLIYAH OF INFORMATION AND COMMUNICATION TECHNOLOGY (KICT)



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