



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia-Japan  
International  
Institute of Technology  
(MJIT)

**I AM UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

# UNDERGRADUATE PROGRAMME

**MJIT AS THE PREFERRED JAPANESE ORIENTED EDUCATION HUB IN ENGINEERING,  
TECHNOLOGY AND INTERNATIONAL BUSINESS IN SOUTH EAST ASIA**



**APPLY  
ONLINE**

<http://smart.utm.my>





**UT**  
6523004

# BACHELOR OF ELECTRONIC SYSTEM ENGINEERING

with honours

Electronic Systems Engineering is a broad engineering field that encompasses many subfields including those that deal with power, instrumentation engineering, telecommunications, semiconductor circuit design, and many others.

5 Areas : Including Communication, Embedded System, Biomedical, Automation and Material Science

## CAREER OPPORTUNITIES

Graduates from this programme can be employed as production engineers, instrumentation engineers, maintenance engineers, design engineers, sales/marketing engineers or pursue postgraduate degrees.

They are not easily but high chances in Japanese industries and companies since they have acquired appropriate knowledge, experience and Japanese working culture while studying at MJIIT.

## DURATION OF STUDY

International students  
/ 8 semesters (min)

Malaysian students  
/ 8 semesters (min)

PROGRAMME	TOTAL CREDIT TO GRADUATE	
	LOCAL	INTERNATIONAL
SMJE	135	135

## PROGRAM MODULES

### Semester 1

Programming For Engineer  
Fundamental of Electrical Circuits  
Introduction To Electronic System Engineering  
Engineering Mathematics I  
Appreciation of Ethics and Civilisation\*(Local & International Students)  
Graduate Success Attributes

### Semester 2

Digital Electronics  
Measurement and Instrumentation  
Electrical Power System  
Engineering Mathematics II  
Japanese For Communication I  
English Communication Skills  
Co-Curriculum/Service Learning

### Semester 3

Electronic Circuits  
Digital System Design  
Electronic Engineering Laboratory I  
Engineering Mathematics III  
Professional Ethics & Safety (Ningen-Ryoku)  
Philosophy And Current Issue \*(Local Students Only)  
Malay Language For Communication II \*(International Students Only)  
Japanese for Communication II

### Semester 4

Circuits and Signals  
Electromagnetics  
Electronic Engineering Laboratory II  
Electronic System  
Engineering Statistics  
Advanced Academic English Skills  
Japanese for Communication III

### Semester 5

Communication Electronics  
Control System  
Microprocessor and Microcontroller  
Monozukuri Project  
Numerical Methods  
Introduction to Entrepreneurship  
Extra - Curricular Experiential Learning (ExCEL)

### Semester 6

Digital Signal Processing  
Electronic Engineering Laboratory III  
Integrated Design Project  
Computer Architecture and Multimedia Technology  
Artificial Interlligence  
English for Professional Purposes

### Short Semester

Industrial Training

### Semester 7

Final Year Project I  
Elective 1  
Elective 2  
Elective 3  
Ningen Ryoku (Special Lecture)  
The Thought of Science and Technology

### Semester 8

Final Year Project II  
Elective 4  
Elective 5  
Elective 6

\*subject to change





[mjiit.cpe.info@utm.my](mailto:mjiit.cpe.info@utm.my)

<https://mjiit.utm.my/bachelor-of-chemical-process-engineering-details/>

**UT**  
6524004

# BACHELOR OF CHEMICAL PROCESS ENGINEERING

with honours

The Chemical Process Engineering program is offered to develop the engineers and scientists who can manage problems in construction and operation of complex systems such as energy production systems, chemical plants, food processing systems, biological processes or problems in environmental conservation.

The students will be taught the relevant skills and technologies to find problems in complex systems. The Chemical Process Engineering program provides education on chemical engineering, transport phenomena, fluid mechanics, thermodynamics, reaction kinetics, system control, optimization theory or so on.

Students in this program will acquire the fundamental knowledge and practical skills through lectures and laboratory experiments.

## CAREER OPPORTUNITIES

Graduates from this program can seek employment opportunities as process engineers, design engineers, chemical engineers, research engineers, technical sales engineers, commissioning engineers, service engineers in the chemical and biochemical industry, the oil and gas industry, the water and waste water treatment industry, the power station, the food industry, the pharmaceutical industry, the electronic industry, the heavy industry etc.

Graduates of this program will also be prepared for entry into post graduate education either in MJIIT or other universities worldwide.

## DURATION OF STUDY

International students  
/ 8 semesters (min)

Malaysian students  
/ 8 semesters (min)

PROGRAMME	TOTAL CREDIT TO GRADUATE	
	LOCAL	INTERNATIONAL
SMJC	137	137

## PROGRAM MODULES

### Semester 1

Introduction to Chemical Process Engineering  
Engineering Mathematics I  
Engineering Drawing With CAD  
Programming for Engineers  
English Communication Skills  
Malay Language For Communication II *\*(International Students Only)*  
Introduction to Entrepreneurship

### Semester 2

Organic Chemistry I  
Thermodynamics  
Engineering Mathematics II  
Japanese for Communication I  
Advanced Academic English Skills  
Professional Ethics, Safety & Health (Ningen-Ryoku)  
Graduate Success Attributes

### Semester 3

Organic Chemistry II  
Mass and Energy Balance  
Engineering Mathematics III  
Japanese for Communication II  
Analytical Chemistry  
Fluid Mechanics  
Philosophy And Current Issue *\*(Local & International Students)*

### Semester 4

Organic Chemistry/Analytical Lab  
Chemical Process Engineering Laboratory I  
Physical Chemistry for Chemical Engineer  
Chemical Engineering Thermodynamics  
Transport Phenomena  
Engineering Statistics  
Japanese for Communication III  
Co-Curriculum/Service Learning

### Semester 5

Separation Processes I  
Chemical Kinetics and Reactor Design  
Process Control and Instrumentation  
Chemical Process Engineering Laboratory II  
Numerical Methods for Chemical Engineer  
Fundamentals of Microbiology and Biotechnology  
Appreciation of Ethics and Civilisations *\*(Local Students Only)*

### Semester 6

Separation Processes II  
Introduction to Environmental Engineering  
Chemical Process Engineering Laboratory III  
Chemical Process Engineering Laboratory IV  
Material Sciences  
Process Economics & Project Management  
English for Professional Purposes  
Extra-Curricular Experiential Learning (ExCEL)

### Short Semester

Industrial Training

### Semester 7

Final Year Project I  
Chemical Process Design  
Process Safety and Health  
Elective 1  
Elective 2

### Semester 8

The Thought Of Science And Technology  
Final Year Project II  
Chemical Plant Design Project  
Elective 3  
Elective 4

*\*subject to change*





**UT**  
6521005

# BACHELOR OF MECHANICAL PRECISION ENGINEERING

with honours

Mechanical Precision Engineering program was designed for students who wish to acquire a solid foundation in mechanical engineering with deep knowledge of the principles and practice of precision engineering.

Precision engineers utilize the principles of precision engineering, applied physics, mechatronics and manufacturing to help transfer new technologies, discoveries, inventions into machines or products that satisfy demanding accuracy, repeatability and speed requirements.

Elective courses offered are Nano and Micro Technology, Robotics and Mechatronics and Advanced Processing Technology.

## CAREER OPPORTUNITIES

Graduates from this program can be employed in positions within classical and emerging fields such as Mechatronics, Micro/Nanomanufacturing, Automotive, Aerospace, Atomic/Molecular Metrology, Micro/Nano-scale Machine & Instrument Design.

Graduates of this program will also be prepared for entry into post graduate education.

## DURATION OF STUDY

International students  
/ 8 semesters (min)

Malaysian students  
/ 8 semesters (min)

PROGRAMME	TOTAL CREDIT TO GRADUATE	
	LOCAL	INTERNATIONAL
SMJM	137	137

## PROGRAM MODULES

### Semester 1

Engineering Drawing With CAD  
Experimental Method  
Statics  
Engineering Mathematics I  
The Thought Of Science And Technology  
Graduate Success Attributes  
Japanese For Communication I

### Semester 2

Programming for Engineers  
Dynamics  
Materials Science  
Appreciation Of Ethics And Civilisations \*(Local & International Students)  
Japanese For Communication II  
Solid Mechanics  
Workshop Practice  
Introduction to Entrepreneurship

### Semester 3

Fluid Mechanics  
Fundamental of Electrical Engineering  
Co-Curriculum/Service Learning  
Engineering Mathematics II  
English Communication Skills  
Introduction to Design  
Applied Solid Mechanics

### Semester 4

Manufacturing Processes  
Thermodynamics  
Laboratory I  
Electronics  
Ningen-Ryoku (Professional Ethics, Safety & Health)  
Engineering Mathematics III  
Applied Fluid Mechanics

### Semester 5

Engineering Component Design  
Laboratory II  
Numerical Method  
Applied Thermodynamics and Heat Transfer  
Malay Language For Communication II \*(International Students Only)  
Japanese for Communication III  
Advanced Academic English Skills  
Philosophy and Current Issue \*(For Local Students)

### Semester 6

Integrated Design Project  
Mechanics of Machines and Vibration  
Control Engineering  
Engineering Statistics  
CNC CAD / CAM  
English for Professional Purposes  
Extra - Curricular Experiential Learning (ExCEL)

### Short Semester

Industrial Training

### Semester 7

Final Year Project I  
Monozukuri Project  
Mechatronics  
Modeling and Simulation  
Elective I

### Semester 8

Final Year Project II  
Elective II  
Elective III  
Elective IV

\*subject to change





**DIRECT  
INTAKE**

# BACHELOR OF SOFTWARE ENGINEERING

with honours

Software Engineering uses an engineering approach in the development, operation, and maintenance of large scale software.

A software engineer needs to be able to employ systematic technical and management methods in the creation of high-quality software.

The Bachelor of Computer Science specializing in Software Engineering is designed to support the nation's need for professional and capable software engineers to undertake the task of increasing the effectiveness and performance of both the public and private sectors.

To further support this goal, the course is closely associated with the Malaysian Software Testing Board (MSTB) certifications and Hewlett-Packard (HP) Software Testing Program.

## CAREER OPPORTUNITIES

Graduates of the program can work as a Software Engineer, Software Project Engineer, Systems Analyst, Systems Engineer, Software Quality Engineer, Software Configuration Engineer, Software Architect, Software Process Engineer, Software Test Engineer, Software Maintainer, Academician, Researcher, and Software Designer.

Graduates of these programs will also be prepared for entry into postgraduate education either in MJIT or other universities worldwide.

**DURATION  
OF  
STUDY**

International students  
/ 8 semesters (min)

Malaysian students  
/ 8 semesters (min)

## PROGRAM MODULES

### Semester 1

Discrete Structure  
Programming Technique I  
Digital Logic  
Technology & Information System  
Graduate Success Attributes  
The Thought of Sciences and Technology  
Malaysia Language for Communication *\*(International Students Only)*

### Semester 2

Computational Mathematics  
Probability & Statistical Data Analysis  
Programming Technique II  
Computer Organisation and Architecture  
English Communication Skills  
Philosophy And Current Issue *\*(Local Students Only)*

### Semester 3

Database  
System Analysis and Design  
Data Structure and Algorithm  
Network Communications  
Human Computer Interaction  
Appreciation of Ethics and Civilisation *\*(Local & International Students)*  
Service Learning Co-curriculum Elective

### Semester 4

Software Engineering  
Web Programming  
Operating Systems  
Object Oriented Programming  
Academic Communication Skills  
Elective Courses - **Choose 1**  
•Requirements Engineering & Software Modelling  
•Software Project Management

### Semester 5

Professional Communication Skills  
Foreign Language Elective  
Extracurricular Experiential Learning  
Elective Courses - **Choose 4**  
•Applications Development  
•Artificial Intelligence  
•Internet Programming  
•Software Design & Architecture

### Semester 6

Software Engineering Project I  
Theory of Computer Science  
Elective Courses - **Choose 4**  
•Software Quality Assurance  
•Computational Intelligence  
•Mobile Application Programming  
•Special Topic in Software Engineering  
•Web Technology

### Semester 7

Industrial Training (HW)  
Industrial Training Report

### Semester 8

Software Engineering Project II  
Technopreneurship Seminar  
Introduction to Entrepreneurship  
Elective Courses - **Choose 2**  
•Software Construction  
•Real-Time Software Engineering  
•Agent-Oriented Software Engineering

*\*subject to change*

PROGRAMME	TOTAL CREDIT TO GRADUATE	
	LOCAL	INTERNATIONAL
SECJ	131	131





## TESTIMONIAL STUDENTS

It was a great 4 years journey at Malaysia-Japan International Institute of Technology (MJIIT). The subject offered meet industry requirement. Foreign and local lecturers are really friendly. Only in MJIIT you have a high chance to go to Japan. Study hard, grab a chance if you see one, build your soft skills and you will become successful in future.



**MR. ABDUL SYAKIR BIN ABDUL WAHAB**  
(Cohort 2, Class of 2018)

Production Executive,  
BASF-PETRONAS Chemicals Sdn Bhd

<http://mjiit.utm.my>

# MJIIT



## Malaysia-Japan International Institute of Technology (MJIIT)

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**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia-Japan  
International  
Institute of Technology  
(MJIIT)

**5 Star**  
QS Overall  
Rating

**TOP 50**  
Best  
Universities  
in Asia

**TOP 20**  
Universities  
under  
50 years of  
establishment

**I AM UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA