



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia-Japan
International
Institute of Technology
(MJIT)

BACHELOR OF ELECTRONIC SYSTEMS ENGINEERING, CHEMICAL PROCESS ENGINEERING, MECHANICAL PRECISION ENGINEERING WITH HONOURS

PROGRAMME EDUCATIONAL OBJECTIVES

PEO
01

TECHNICAL

DEMONSTRATE MASTERY OF
KNOWLEDGE & COMPETENCY IN
MANIFESTING CUTTING EDGE
TECHNOLOGIES

PEO
02

PROFESSIONALISM

DEMONSTRATE PROFESSIONALISM
THROUGH INNOVATIVE,
ENTREPRENEURIAL & GLOBAL
QUALITIES

PEO
03

SUSTAINABLE SOCIETY

CONTRIBUTE TO SUSTAINABLE
DEVELOPMENT FOR THE
BENEFITS OF SOCIETY

PROGRAMME LEARNING OUTCOMES

PL01

Ability to apply knowledge of mathematics, natural sciences, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems

ENGINEERING KNOWLEDGE (KW)

PL02

Ability to identify, formulate, conduct research literature, and analyse complex engineering problems to reach substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PROBLEM ANALYSIS (THPA)

PL03

Ability to design systems, components or processes and develop solutions for complex engineering problems that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations

DESIGN/DEVELOPMENT (THDS)

PL04

Ability to conduct investigation of complex engineering problems using research-based knowledge and research methods, including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions

INVESTIGATION (THI)

PL05

Ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering problems, with an understanding of the limitations

MODERN TOOL USAGE (SCMT)

PL06

Ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to professional engineering practice and solutions to complex engineering problems

THE ENGINEER AND SOCIETY (AD)

PL07

Ability to understand and evaluate the sustainability and impact of professional engineering solutions of complex engineering problems in societal and environmental contexts

ENVIRONMENT AND SUSTAINABILITY (GCS)

PL08

Ability to apply ethical principles and commit to professional ethics, responsibilities and norms of engineering practice

ETHICS (GSE)

PL09

Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

COMMUNICATION (CS)

PL010

Ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

INDIVIDUAL AND TEAM WORK (TW)

PL011

Ability to recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

LIFE-LONG LEARNING (SC)

PL012

Ability to demonstrate knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, to manage projects in multidisciplinary environments

ENGINEERING PROJECT MANAGEMENT AND FINANCE (ES)