

## MINOR PROGRAMME IN

# Mechanical and Automation Engineering

Engineering has permeated into all sectors of modern society with its great many successes and advancements in recent decades. A strong emergence of this happening is in the areas of automating and intelligent machines and systems, with applications now covering not only the traditional industries, but also the design and making of personal devices, home appliances, entertainment systems, automobiles, microelectromechanical systems, and biomedical engineering and more. A basic exposure and knowledge in this particular field is pertinent in one's ability and vision to understand and anticipate the next development trend and opportunities. In light of this relevancy, our interdisciplinary Minor Programme in Mechanical and Automation Engineering was introduced to cover the fields of mechanics, electronics, control and computing, which are the building blocks of the new generation of autonomous engineering systems. Our goal is to equip our minor students with the key background in mechanical and automation system design and integration on top of their major specializations. Our programme will serve to uniquely enhance their competitiveness in the job market and equip them with the flexibility and versatility to perform, adapt and excel in face of the new challenges ahead in a technological evolving world.

## Minor Programme Requirement

Students are required to complete a minimum of 18 units of courses as follows:

### Required Courses (6 units)

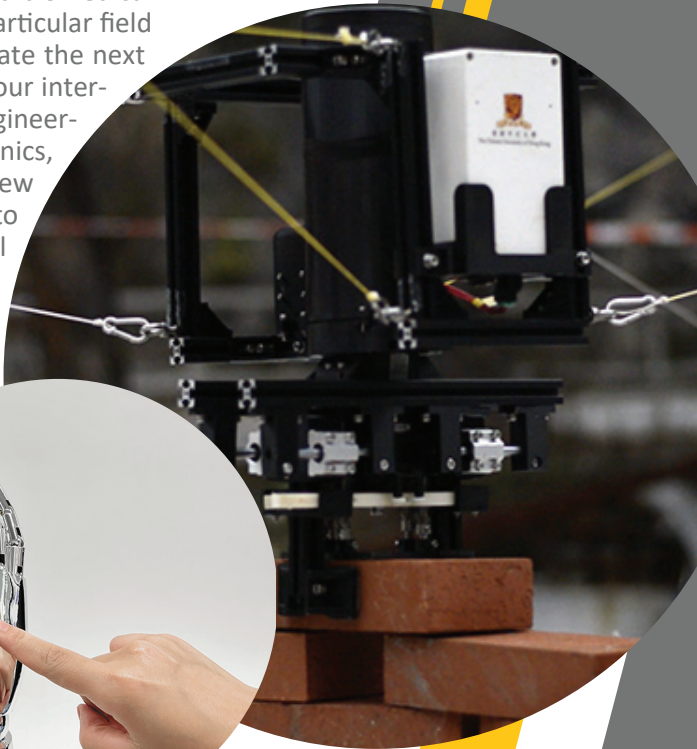
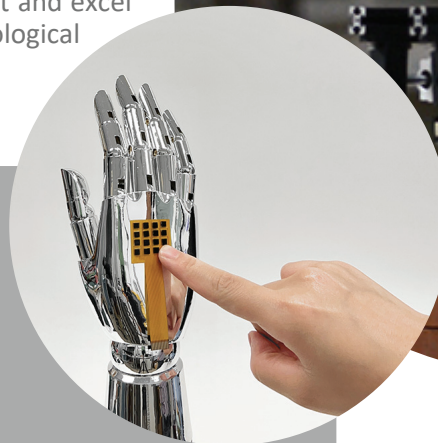
MAEG2020/ESTR2400 Engineering Mechanics  
MAEG3060/ESTR3408 Introduction to Robotics

### Elective Courses (12 units)

EEEN3030/ESTR3402 Engineering Materials  
MAEG2030/ESTR2402 Thermodynamics  
MAEG3010 Mechanics of Materials  
MAEG3020/ESTR3404 Manufacturing Technology  
MAEG3030 Fluid Mechanics  
MAEG3040 Mechanical Design  
MAEG3050/ESTR3406 Introduction to Control Systems  
MAEG3070 Fundamentals of Computer-Aided Design  
MAEG3080 Fundamentals of Machine Intelligence  
MAEG4010/ESTR4408 Computer-Integrated Manufacturing  
MAEG4020/ESTR4410 Finite Element Modelling and Analysis  
MAEG4030/ESTR4412 Heat Transfer  
MAEG4040/ESTR4414 Mechatronic Systems  
MAEG4050/ESTR4416 Modern Control Systems Analysis and Design  
MAEG4060 Virtual Reality Systems and Applications  
MAEG4070/ESTR4418 Engineering Optimization  
MAEG4080/ESTR4420 Introduction to Combustion

### Enquiry

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