UTAR
UNIVERSITI TUNKU ABDUL RAHMAN

Wholly owned by UTAR Education Foundation
(Co. No. 578227-M)
DU012(A)

LEE KONG CHIAN FACULTY OF ENGINEERING AND SCIENCE

Bachelor of Engineering (Honours) Biomedical Engineering

Vision

To be a global university of educational excellence with transformative societal impact

Mission

- **U**niversal values in our beliefs
- **T**enacity in overcoming challenges
- **A**gility in facing new frontiers
- **R**esponsibility in pursuit of excellence

Programme Educational Objectives

*PEO 1: Graduates competent in practicing fundamental scientific and engineering principles in **Biomedical Engineering** industries in a creative and innovative manner.*

*PEO 2: Graduates capable of communicating and managing effectively in diverse areas of **Biomedical Engineering**.*

PEO 3: Graduates practicing professional ethics, life-long learning, and sustainable development for the betterment of the profession and society.

Programme Outcomes

PO1: Engineering Knowledge	Acquire and apply fundamental knowledge of science, engineering and mathematics, with an engineering focus in solving complex engineering problems
PO2: Problem Analysis	Apply first principles of mathematics, natural and engineering sciences to identify, study, formulate and evaluate complex engineering problems based on systematic approach and leading to authenticated conclusions
PO3: Design/ Development of Solutions	Devise solutions for complex engineering problems and design systems, components or processes by taking into consideration cost-effectiveness and specific concerns for public health, safety and environment.
PO4: Investigation	Make use of research based knowledge and methodology through critical thinking to interpret, analyze, and study complex engineering problems, designs and operational performances to reach convincing conclusions
PO5: Modern Tool Usage	Apply original engineering techniques and state of the art engineering and IT resources to model, simulate and analyze complex engineering problems within the relevant constraints and range of validity
PO6: The Engineer and Society	Apply appropriate knowledge in the evaluation and assessment of subject matters pertinent to the professional engineering practice with considerations of public health and safety, community welfare and cultural perspectives as well as legal, moral and ethical responsibilities
PO7: Environment and Sustainability	Recognize the significance of sustainable development when devising professional solutions to engineering problems with a clear understanding and pro-active considerations of environmental concerns as well as needs for eco-friendly continual growth for local and global community
PO8: Ethics	Apply professional virtues and principles with strong commitment to moral and ethical responsibilities during the course of engineering practice
PO9: Communication	Demonstrate the ability to convey ideas and information effectively within the engineering profession and the general community when addressing complex engineering issues and activities, including unambiguous interpretation of data and instructions, enlightening oral presentations and writing skills evident in accurate documentation of designs and solutions
PO10: Individual and Team Work	Display capability to work competently in the context of a diverse team within multidisciplinary environment, as an individual member with teamwork fortitude or as an inspiring leader with effective management skills
PO11: Life-long Learning	Recognize the need to take on independent life-long learning and continuous self improvement in the context of scientific and engineering advancement and professional development
PO12: Project Management and Finance	Show capability to comprehend and apply engineering and management philosophy to manage projects of in cross disciplinary content, as a member or a leader in a team realizing the importance of cost-effective design and solution for sustainable development

If you have any enquiry about the accreditation in your engineering programme, please contact I**Professor Ir. Dr. Goi Bok Min (goibm@utar.edu.my)** and **Dr. Kwan Ban Hoe (kwanbh@utar.edu.my).**