



Bachelor of Mechanical Engineering (Manufacturing) with Honours CEEM245

PROGRAMME OUTCOMES (PO)

PO1 - Engineering Knowledge: Able to apply knowledge of mathematics, natural science, engineering fundamentals and engineering specialization as specified in WK1 to WK4 respectively to the solution of complex mechanical or manufacturing engineering problems.

PO2 - Problem Analysis: Able to identify, formulate, conduct research literature and analyses complex mechanical or manufacturing engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences (WK1 to WK4).

PO3 - Design / Development of Solutions: Able to design solutions for complex mechanical or manufacturing engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (WK5).

PO4 - Investigation: Able to conduct investigation of complex mechanical or manufacturing problems using research based knowledge (WK8) and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

PO5 - Modern Tool Usage: Able to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex mechanical or manufacturing engineering problems, with an understanding of the limitations (WK6).

PO6 - The Engineer and Society: Able 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 (WK7).

PO7 - Environment and Sustainability: Able to understand and evaluate the sustainability and impact of professional engineering work in the solutions of complex engineering problems in societal and environmental contexts (WK7).

PO8 - Ethics: Able to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice (WK7).

PO9 - Individual and Team Work: Able to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

PO10 - Communications: Able 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.

PO11 - Project Management and Finance: Able to demonstrate knowledge and understanding of engineering management principles and economic decision making and apply these to one's own work, as a member or leader in a team, to manage projects in multidisciplinary environments.

PO12 - Life Long Learning: Able to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.