

DIPLOMA IN MECHATRONIC ENGINEERING

Curriculum 2019. Effective June 2019 Session.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

- PEO 01** Equipped with industry-relevant knowledge and skills in mechatronic engineering field.
- PEO 02** Engaging on lifelong and continuous learning to enhance knowledge and skills.
- PEO 03** Instilled with entrepreneurial skills and mind set in the real working environment.
- PEO 04** Established strong linkage with society and players in the industry.

PROGRAMME LEARNING OUTCOMES (PLO)

- 01 Knowledge:** Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices.
- 02 Problem analysis:** Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4).
- 03 Design/development of solution:** Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (DK5).
- 04 Investigation:** Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements.
- 05 Modern tool usage:** Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6).
- 06 The engineer and society:** Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7).
- 07 Environment and sustainability:** Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts (DK7).
- 08 Ethics:** Understand and commit to professional ethics and responsibilities and norms of technician practice.
- 09 Individual and team work:** Function effectively as an individual, and as a member in diverse technical teams.
- 10 Communication:** Communicate effectively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions
- 11 Project management and finance:** Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a technical team and to manage projects in multidisciplinary environments.
- 12 Lifelong learning:** Recognise the need for, and have the ability to engage in independent updating in the context of specialised technical knowledge