



KEMENTERIAN PENDIDIKAN TINGGI
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI

11 Programme Learning Outcome (PLO)

DIPLOMA IN MECHANICAL ENGINEERING (MANUFACTURING)

Upon completion of the programme, students should be able to:

apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechanical engineering specialized in manufacturing.

PL01

PL02

identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering specialized in manufacturing (DK1 to DK4).

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 as well as, cultural, societal and environmental considerations in area of mechanical engineering specialized in manufacturing (DK5).

PL03

PL04

conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).

Apply appropriate techniques, resources, and modern computing, engineering, and IT tools to well-defined engineering problems, with an awareness of the limitations. (DK2 and DK6).

PL05

PL06

consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems (DK1, DK5 and DK7).

understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).

PL07

PL08

function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).

communicate effectively and inclusively 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 (NA).

PL09

PL010

demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.

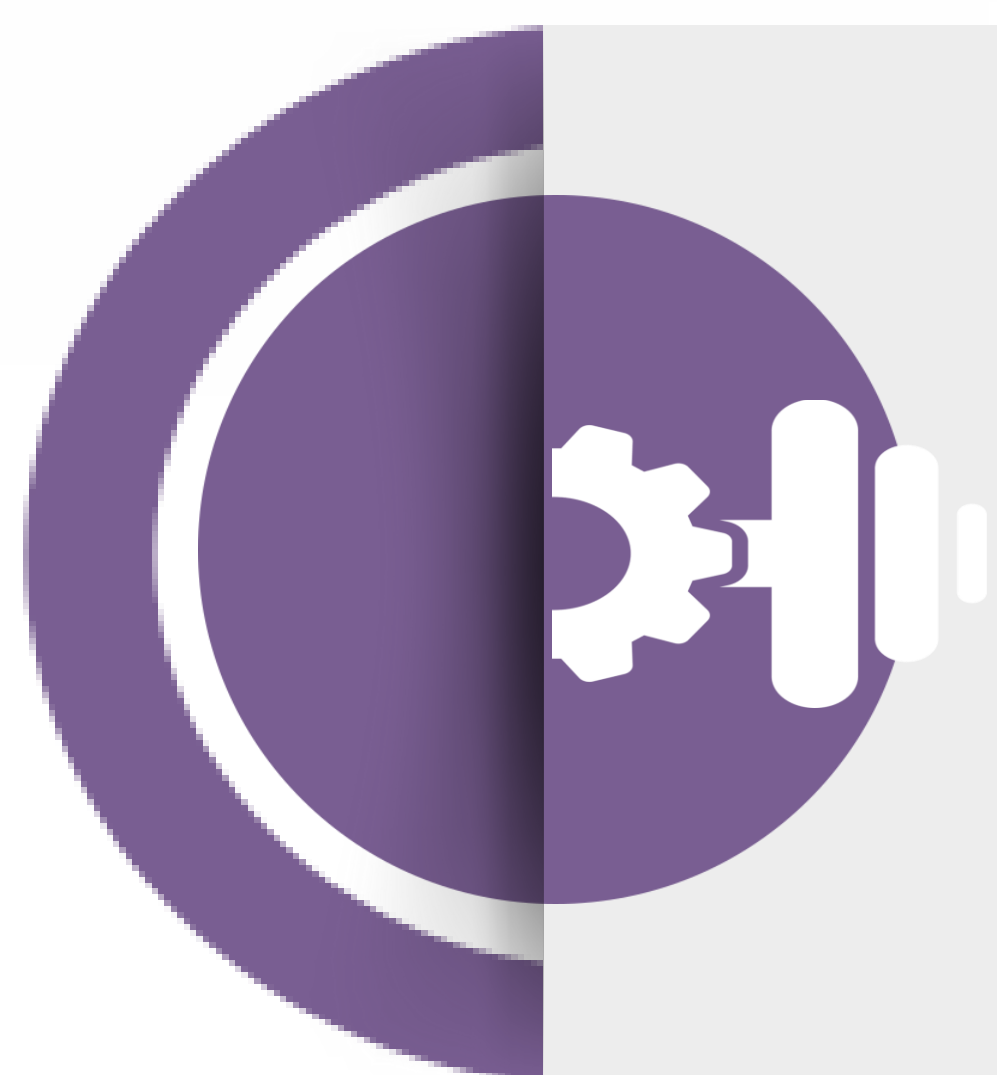
recognise the need for, and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge (DK8).

PL011

04 Programme Educational Objective (PEO)

DIPLOMA IN MECHANICAL ENGINEERING (MANUFACTURING)

The Diploma in Mechanical Engineering (Manufacturing) programme shall produce semi professionals who are:



proficient with industry-relevant knowledge and skills in mechanical and manufacturing engineering field.

01



engaging on lifelong and continuous learning to enhance knowledge and skills

02



acquire with entrepreneurial skills and mindset in the real working environment

03



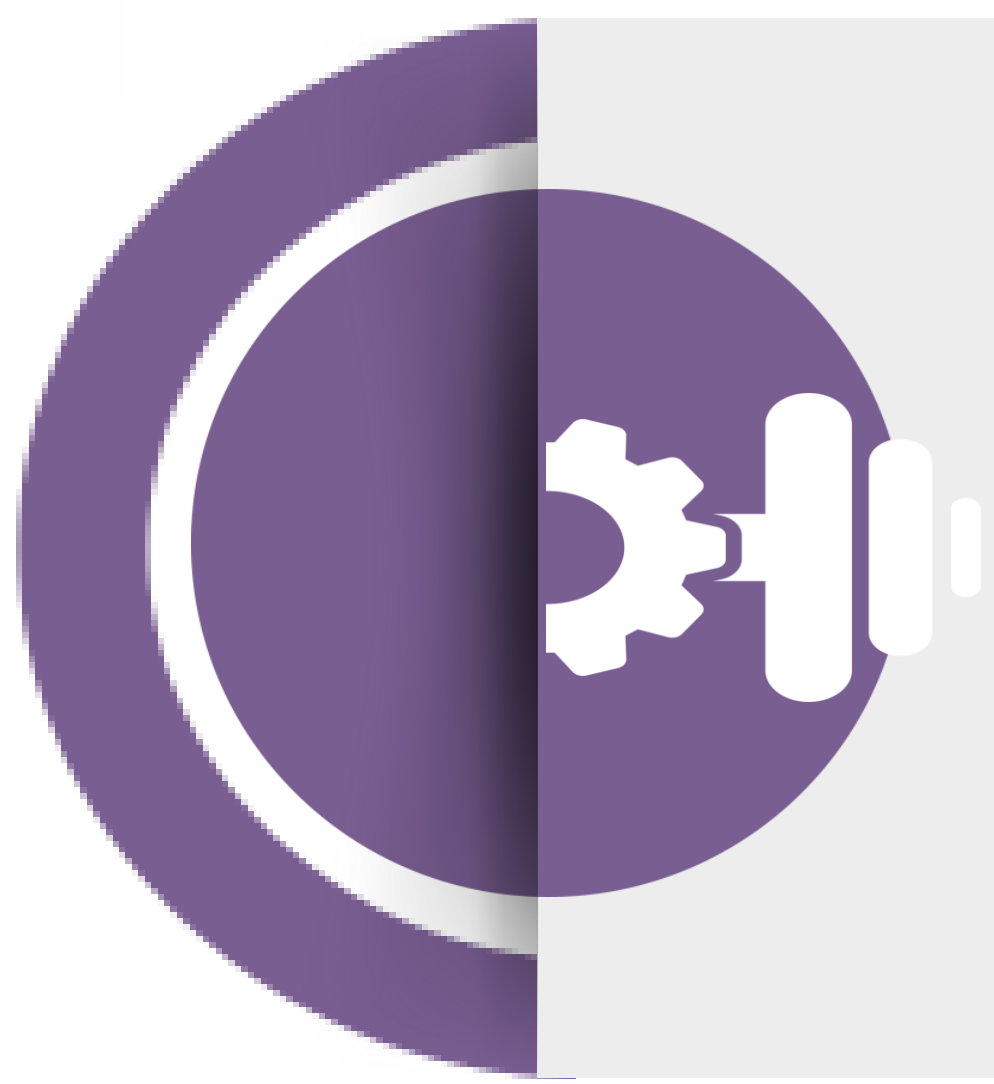
establish links with society and players in the industry

04

04 Programme Educational Objective (PEO)

DIPLOMA IN MECHATRONIC ENGINEERING

The Diploma in Mechatronic programme shall produce semi professionals who are:



proficient with industry-relevant knowledge and skills in mechatronic engineering field

01



engaging on lifelong and continuous learning to enhance knowledge and skills

02



acquire with entrepreneurial skills and mindset in the real working environment

03



establish links with society and players in the industry

04

11 Programme Learning Outcome (PLO)

DIPLOMA IN MECHATRONIC ENGINEERING

Upon completion of the programme, students should be able to:

apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechatronic engineering.

PL01

PL02

identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechatronic engineering field. (DK1 to DK4)

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 as well as, cultural, societal, and environmental considerations in area of mechatronic engineering. (DK5)

PL03

PL04

conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements. (DK8)

apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations. (DK2, DK6)

PL05

PL06

consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems. (DK1, DK5, DK7)

understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion. (DK9)

PL07

PL08

function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings. (DK9)

communicate effectively and inclusively 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 instruction.

PL09

PL010

demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.

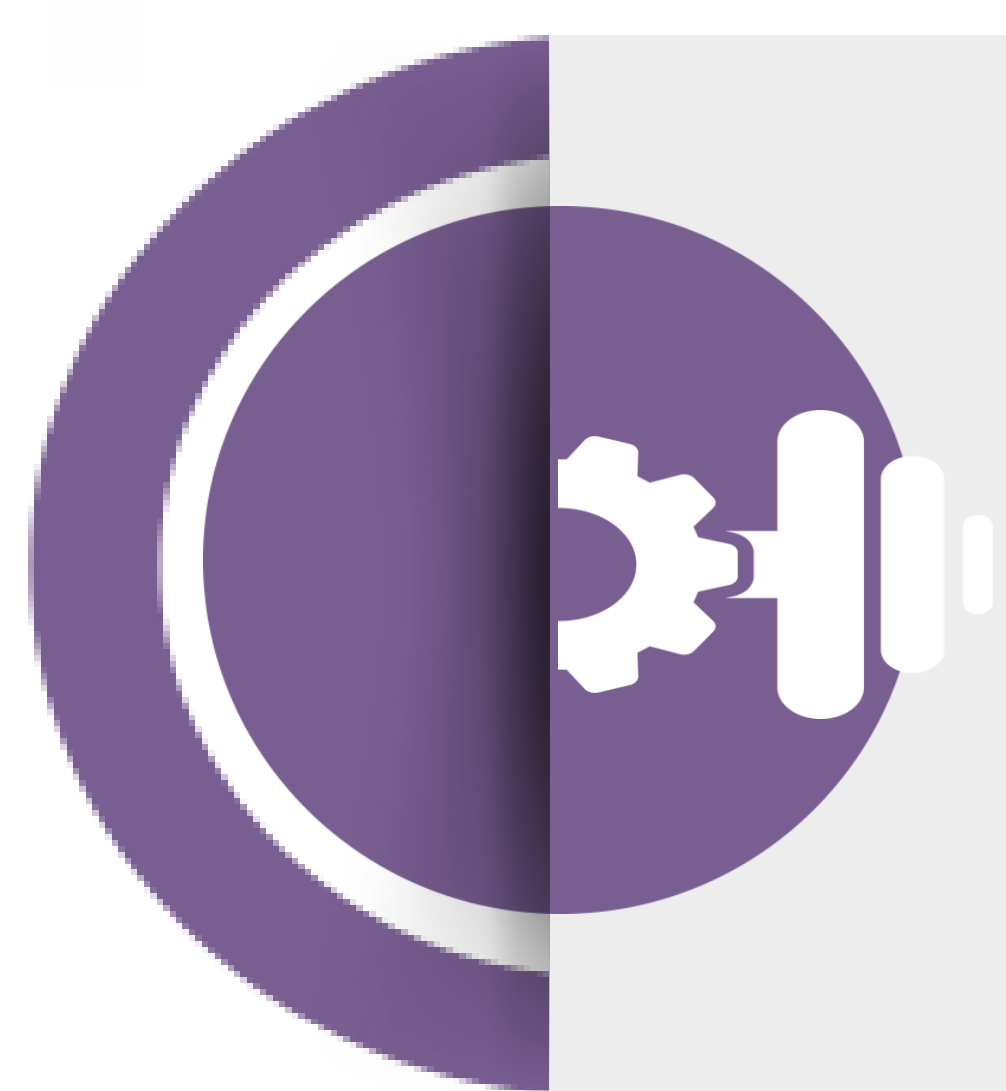
recognise the need for, and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge. (DK8)

PL011

04 Programme Educational Objective (PEO)

DIPLOMA IN MECHANICAL ENGINEERING (POWER PLANT)

The Diploma In Mechanical Engineering (Plant) programme shall produce semi professionals who are:



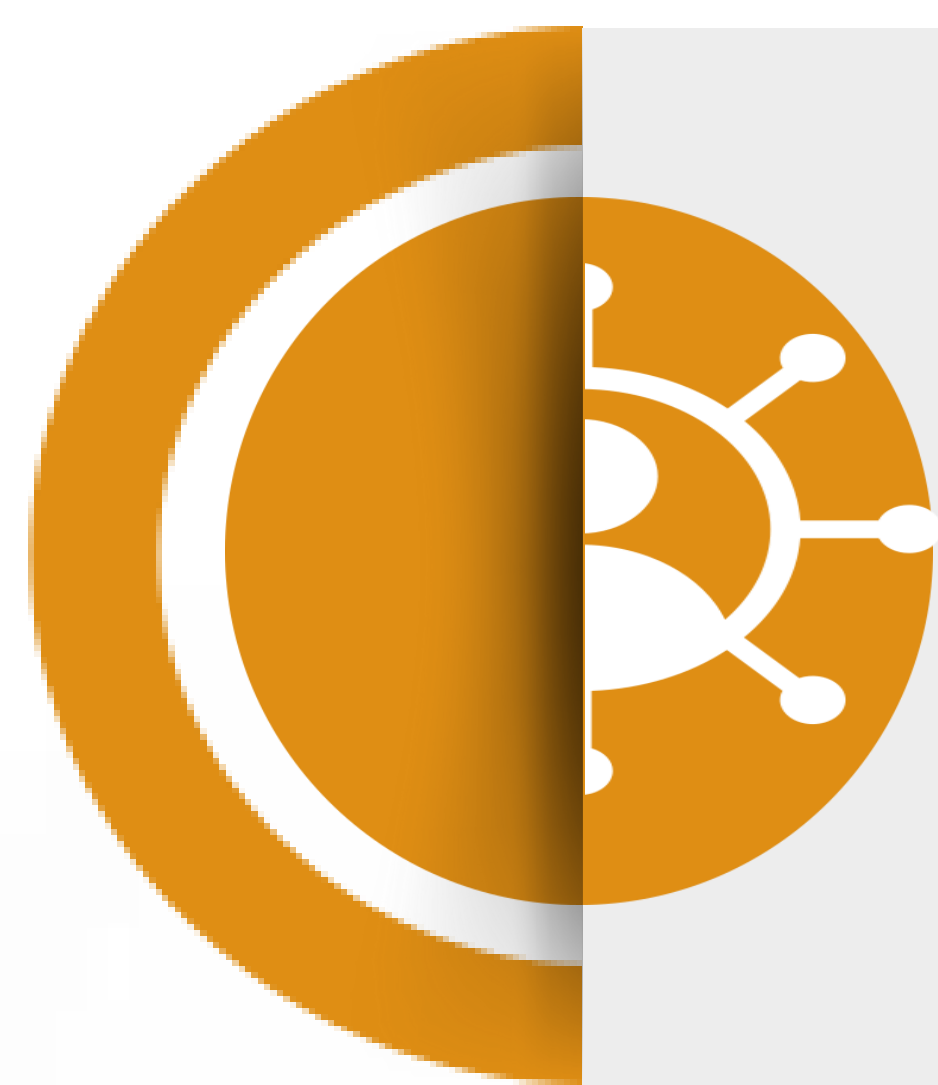
proficient with industry-relevant knowledge and skills in mechanical engineering power plant field

01



engaging on lifelong and continuous learning to enhance knowledge and skills

02



instilled with entrepreneurial skills and mind set in the real working environment

03



establish links with society and players in the industry

04

11 Programme Learning Outcome (PLO)

DIPLOMA IN MECHANICAL ENGINEERING (POWER PLANT)

Upon completion of the programme, students should be able to:

apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechanical engineering power plant.

PL01

identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering power plant field (DK1 to DK4).

PL02

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 as well as, cultural, societal and environmental considerations in area of mechanical engineering power plant (DK5).

PL03

conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8)

PL04

apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2 and DK6).

PL05

consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems. (DK1, DK5 and DK7).

PL06

understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).

PL07

function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).

PL08

communicate effectively and inclusively 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.

PL09

demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.

PL010

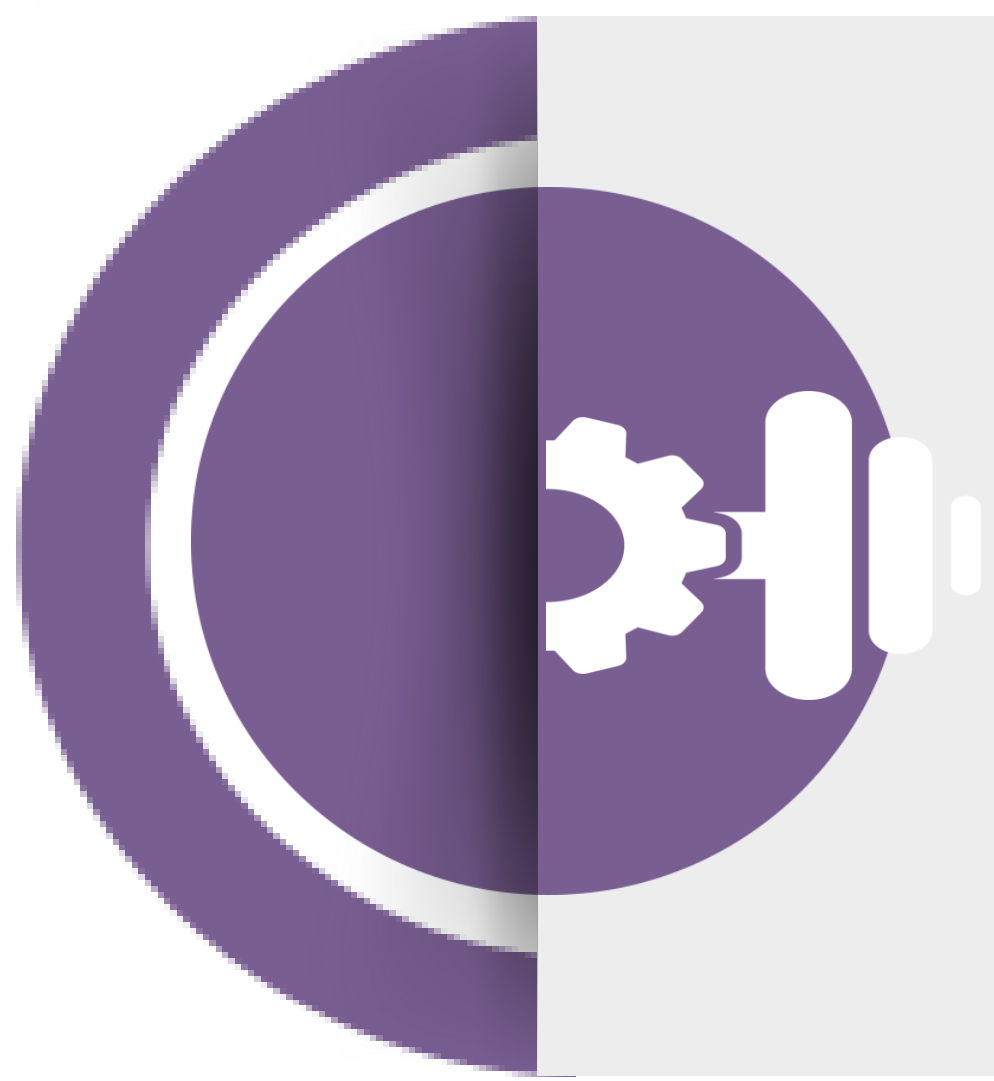
recognise the need for and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge. (DK8).

PL011

04 Programme Educational Objective (PEO)

DIPLOMA IN MECHANICAL ENGINEERING (INDUSTRIAL PLASTIC)

The Diploma In Mechanical Engineering (Industrial Plastic) programme shall produce semi professionals who are:



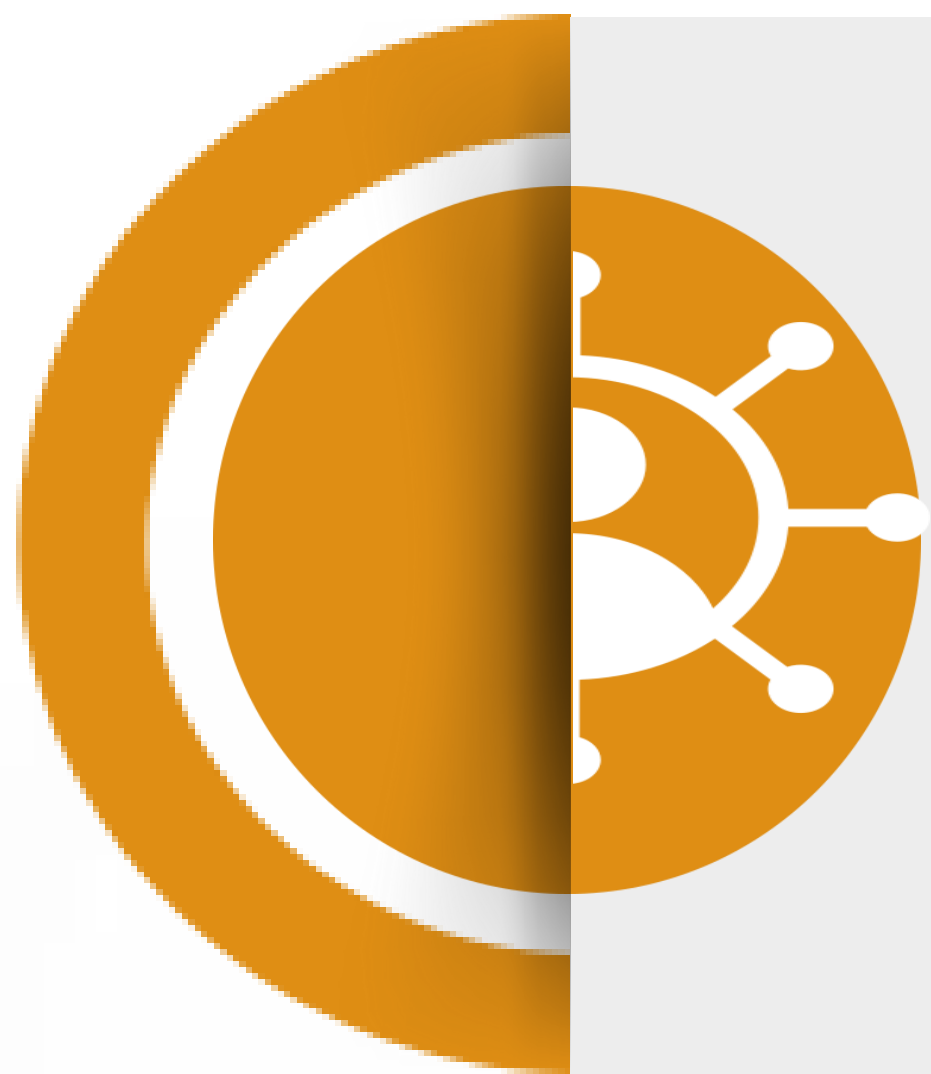
proficient with industry-relevant knowledge and skills in mechanical engineering (industrial plastic) field.

01



engaging on lifelong and continuous learning to enhance knowledge and skills

02



acquire with entrepreneurial skills and mind set in the real working environment.

03



established strong linkage with society and players in the industry

04

11 Programme Learning Outcome (PLO)

DIPLOMA IN MECHANICAL ENGINEERING (PLASTIC)

Upon completion of the programme, students should be able to:

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 in area of mechanical engineering (industrial plastic).

PL01

PL02

identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering (industrial plastic) (DK1 to DK4)

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 in area of mechanical engineering (industrial plastic) (DK5)

PL03

PL04

conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8)

apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2, DK6)

PL05

PL06

Consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems (DK1, DK5, DK7).

understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).

PL07

PL08

Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).

Communicate effectively and inclusively 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.

PL09

PL010

Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.

Recognise the need for, and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge (DK8).

PL011