

DMX6180 Research Methodology and Project Identification (Mechanical/Mechatronics Engineering)

Level	6
Course Code	DMX6180
Course Title	Research Methodology and Project Identification (Mechanical/Mechatronics Engineering)
Credit value	1
Core/Optional	Core
Course Aim/s	To provide the student with knowledge of research based approach in providing solutions to engineering problems
Course Learning Outcomes (CLO):	<p>After completion of this course student will be able to:</p> <p>CLO1: Demonstrate the knowledge of types of research designs, quantitative and qualitative forms of research, and use the most appropriate design for a given issue.</p> <p>CLO2: Create problem statement, purpose statement, research problem and objective of a research.</p> <p>CLO3: Conduct a literature survey effectively in view of information collection with regard to a given issue, critically evaluate outcomes of literature survey, and document them with recognized referencing methods</p> <p>CLO4: Prepare a research proposal based on preliminary investigations.</p> <p>CLO5: Describe ethical issues concerning research and identify and avoid such issue in engineering research.</p> <p>CLO6: Plan and execute substantially research based projects with innovativeness and initiative and with a personal autonomy and accountability.</p> <p>CLO7: Prepare research abstracts and full length articles according to standard formats</p>
Content	<p>Outline Syllabus:</p> <p>Session 01: Meaning and objectives of research Session 02: Types of research Session 03: Literature survey and referencing methods Session 04: Defining a research problem Session 04: Preparation of a research proposal Session 05: Ethics in research Session 06: Dissemination of research outcomes and patenting</p> <p>Activities: Workshop on research problem formulation</p>