



ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada, Approved by AICTE, New Delhi

Recognized by UGC Under Section (2f) and 12(B) of UGC Act 1956

Aditya Nagar, ADB Road, Surampalem, 533437

Department of Mechanical Engineering

Project Title:	Fabrication of Stand Design for Drilling and Cutting Machine	
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Abstract	PO's Mapping	PSO's Mapping
The machine design and fabrication for two operations in a single column (either side of the column). The two operations are drilling and cutting. The purpose of the machine is to reduce the manufacturing time and cost reduction. The same machine is used for doing these two operations, instead of using separate machines such as drilling machine and cutting machine. The machine operates through power sources with spring. The operations can perform simultaneously or individually.,	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2, PSO3

PO1: Engineering Knowledge	PO5: Modern Tool usage	PO9: Individual & Team Work
PO2: Problem Analysis	PO6: Engineer & Society	PO10: Communication Skills
PO3: Design & Development of solutions	PO7: Environment & Sustainability	PO11: Project Management & Finance
PO4: Investigations on complex problems	PO8: Ethics	PO12: Life Long Learning
PSO1: Mechanical Engineers must be able to analyze, design and evaluate mechanical components and systems using cutting-edge software tools as required by the industries from time to time.	PSO2: The ability to work in manufacturing and other sectors' operations and maintenance plants	PSO3: As part of a team or individually, plan and manage activities in micro, small, medium and large enterprises

Relevance to PO's and PSO's

PO1	Applied the subject knowledge in design for drilling and cutting machine.
PO2	Studied and analysed existing designs of stand.
PO3	Structure of the frame is designed and utilize suitable methods and materials to carry out experiments.
PO4	Stand design for drilling and cutting machine.
PO5	Software CATIA V5 is used to design for desired equipment for multipurpose machines.
PO6	Drilling and cutting machine tested and results obtained to derive conclusions.
PO7	Different machines and welding is used to fabricate the drilling and cutting machine and also reduced the wastages.
PO8	Drilling and cutting machine fabricated as per standard.
PO9	Fabrication of the drilling and cutting machine is done by the team collaboration
PO10	Use literature to identify the objective, scope and the concept of the work.
PO11	Business plan contains the work flow and cost control
PO12	Acquired the knowledge to fabrication of the drilling and cutting machine as per standard.
PSO1	Design and development of complete fabrication of the drilling and cutting machine is tested by tested any vibration, misalignment error or not.
PSO2	Maintenance of the drilling and cutting machine is negligible.
PSO3	Entrepreneur skills attained

