

M.Tech (CAD/CAM):

M.Tech in CAD/CAM is a widely sought program with the objective of producing designers and manufacturing professionals with expertise in the software tools for product design, rapid manufacturing, automation, quality assurance, and cost-effectiveness. The students are imparted with fundamental knowledge of the latest technological applications and to prepare them for taking up further research in the areas. M. Tech in CAD/CAM imparts, through a holistic curriculum, skills to apply computer and scientific principles to solve problems related to manufacturing.

PROGRAM HIGHLIGHTS:

- A qualified student of this program will be able to apply the CAD/CAM technology effectively and develop the solutions in the manufacturing and production industry.
- The student will also be able to apply the simulations for the problems related to the analysis in the mechanical industries and related research fields.
- During this program the students will be taught to develop the computer software related to design, manufacturing and analysis in the mechanical and allied fields.
- The student will also be able to formulate the research problem out of the research gap established from the literature review of the research fields and analyses it rationally by applying the data analytics techniques.

CAREER OPPORTUNITIES:

The program is suitable to produce product design engineers who combine engineering expertise with the confidence to work with various CAD/CAM applications to support engineering design. They will find employment in manufacturing plants (in R&D, production, quality control and programming/operating CNC/DNC machines). The student can further pursue research in the various areas such as product design, digital manufacturing, solid Modeling and finite element analysis in

research organizations. The course is also beneficial for pursuing further studies such as PH.D and academics as the career.

Career Pathway:

- Automotive sectors.
- Software companies dealing in product design and development.
- Government organizations like DRDO, BHEL, BHARC, ISRO, HAL etc.
- Marine and aircraft manufacturing industry.
- Research and development
- Academics

About Department:

We started our journey in the year of 1995. The department is committed to well-being and all-round development of its students and faculty. The department runs one under graduate programme B.Tech (Mechanical Engineering) and two masters programmes M.Tech in Advanced Manufacturing Systems and CAD/CAM. The department has faculty strength of **38** out of which **18** are doctorates in diversified specializations from IITs, NITs and State universities and **17** are pursuing Ph.D.

The main focus of our curriculum is to promote technical competence, problem solving skills and innovation of new technologies. Department offers wide spectrum of optional courses to students to pursue their interest. The syllabi are periodically updated for introducing new technological developments as required by the industry.

We have state of the art labs, research and computational facilities and wide range of software to support academic programs. Faculty members of the department executed externally funded research projects in Joining Technologies, Characterization of Bone and Biomaterials, Computational Thermodynamics of Materials, Machining of Super Alloys, Bio Fuels etc.

We also offer consultancy services in Rapid Prototyping, Composite Materials, Joining Technologies and Process Optimization areas.

Infrastructure:

Department is equipped with wide range of CAD/CAM software like AutoCAD CATIA, ANSYS, Adams, Mastercam, Inventor, GibbsCAM, IronCAD, Edgecam, FlexSim, AutoMod, MATLAB, Minitab, Artec Studio, HyperMesh and 128 workstations with latest configuration to cater to the UG and PG programs for design, modeling and analysis of engineering products and research projects. Department possesses the following research facilities:



3D Printers



Ultrasonic Flow Detector

3-D Printers, 3-D scanner for visualization and prototype development of products.

A center of excellence for Joining Technology is established by the department with necessary infrastructure such as Digital Metallurgical Microscope, Digital Ultrasonic Flaw Detector, and Digital Micro Vickers Hardness Tester along with Thermo-Calc and Mathematica software to conduct advanced research in joining technologies.



CNC Lathe and Milling Machines

CNC Lathes and CNC Milling machine apart from machine shop to manufacture complex and precise components.

Faculty Strengths:

S. No	Name of the Faculty	Qualification	Designation	Spealization	Strengths
1	G.Raghu Babu	Ph.D	Professor	CAD/CAM	Good experience and expertise in teaching subjects like Rapid Prototyping, Additive Manufacturing and related Laboratories
2	E.Venkata Ramana	Ph.D	Professor	CAD/CAM	Good Experience and expertise in teaching subjects like Automation in Manufacturing, Robotics and related Laboratories
3	K. Ajay Kumar	Ph.D	Associate Professor	Stress&Vibration	Good Experience and expertise in teaching subjects like Finite Element Analysis, Mechanical Vibrations and related Laboratories

4	V. Siva Rama Krishna	Ph.D	Assistant Professor	CAD/CAM	Good Experience and expertise in teaching subjects Advanced CAD, Computer Aided Manufacturing and related Laboratories
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Research Funding/Projects Completed:

S.NO.	Funding Agency	Funding amount
1	AICTE- RPS	Rs.17.52 Lakhs
2	DRDO	Rs.9.32 Lakhs
3	DRDO-CARS	Rs.7.84 Lakhs
4	UGC-Minor Project	Rs.3.30 Lakhs

Industry Interaction:

Mechanical Engineering Students at VNRVJIET benefit by experts coming from both industry and Academia. Knowledge sharing sessions are conducted throughout the academic calendar to give students insights into the real-life applications of their subjects in industry.

Industry Visits:



Industrial visits are organized for students to give them the platform to know about the innovative practices in industries and share leadership approaches that have led to their success.

Expert Lectures:



The department organizes expert lectures by inviting experts from academia, research organizations and Industry like IIIT's, NIT's, JNTUH, OU, DRDO etc. to make students aware of the latest technological advancements and trends in industry. The expert lecturers encourage the students to streamline their learning with industry demands.

Contact us

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