



VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institute, NAAC Accredited with 'A⁺⁺' Grade and NBA Accredited
Approved by AICTE, New Delhi, Affiliated to JNTU Hyderabad
Recognized as "College with Potential for Excellence" by UGC

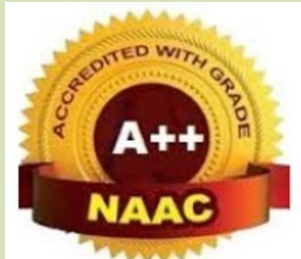


DEPARTMENT OF AUTOMOBILE ENGINEERING



About the Department

The department of automobile engineering commenced with an undergraduate programme in the year 2010. Keeping itself up-to-date with the latest developments in the field with a dedicated team of highly qualified and experienced faculty in various streams of automobile engineering, the department consistently strives to provide world-class facilities for education and research. The department has laboratories with modern and state-of-the-art equipment, well furnished seminar hall and a library with a collection of various journals, magazines and books. The department also maintains a close liaison with a number of Industries through faculty research and collaborative projects. Industry training and identifying industry relevant problems for research is a special characteristic of the programme offered by the department. Faculty members are continually publishing the results of their research work as technical papers in international and national journals and conferences. The department trains the students to meet the technological challenges and diverse needs of the industry and society in various areas of automobile engineering and equips them to excel in a truly competitive industry.



A score of 3.73 out of 4.0

Vision

To become and be one of the elite technical institutes acclaimed by the peers and industry with world class technical education, contemporary teaching facility and state-of-the-art laboratories to suit global standards.



About the Programme

Automobile engineering alias automotive engineering or vehicle engineering is one of the most challenging careers in the field of engineering with a wide scope. This branch deals with the motorcycles, scooters, etc. and the related engineering sub systems. For the perfect blend of designing and manufacturing automobiles, automobile engineering uses the features of different elements of engineering such as mechanical, electrical, electronic, software and safety engineering.



About Faculty

Faculty is one of the greatest strengths of the department, who has commitment towards teaching and research of high quality and practical values. The department of automobile engineering has 21 faculty members, out of which four are doctorates with diverse wealth of knowledge. The faculty is continuously striving to upgrade the academic standard and research expertise to match it to latest technological developments. In addition, the faculty encourages lateral thinking of individuals for undertaking collaborative projects with industry. The faculty is highly accessible, allows for a closer student-teacher relationships.



Career

This field offers wide range of opportunities for the aspirants and it includes automobile manufacturing industries, production plants, service stations, state road transport corporations, private transport companies, insurance companies, motor vehicle departments etc. With the computer knowledge in CAD, CAM, ERP, programming, automobile engineers can find employment in computer aided industries or research and development wing of companies. Globalization and incredible growth of automobile industry have resulted in numerous opportunities for automobile engineers both in India and abroad. Graduates of automobile engineering get opportunity to serve many top-notch automobile companies and IT companies as well.



Core Courses

In addition to mechanical engineering courses, automobile engineering programme has following core courses.

- Automotive Engines
- Automotive Chassis
- Automotive Electrical and Electronics
- Design of Automotive Components
- Vehicle Dynamics
- Electric and Hybrid Vehicles
- Autonomous Vehicle Technologies
- Vehicle Body Engineering and Safety
- Automotive Pollution and Control
- Alternative Fuels
- Fuel Cell Technology



CAD Laboratory



Automotive Chassis Laboratory



Vehicle Dynamics Laboratory

Laboratory Facilities

In addition to mechanical engineering laboratories, the department has following automobile specific laboratories with state-of-the-art equipments.

- Automotive Engines Laboratory
- Automotive Chassis Laboratory
- Fluid Mechanics and Hydraulic Machine Laboratory
- Production Technology laboratory
- CAD Laboratory
- Vehicle Dynamics Laboratory
- Autotronics Laboratory
- Vehicle Maintenance & Testing Laboratory
- Automotive Simulation Laboratory
- SAE Laboratory



Automotive Engines Laboratory



Autotronics Laboratory



Alternative Fuels and Testing Laboratory



SAE Laboratory

Softwares

For the faculty and aspiring students to pursue their research and project work, the software packages available in the department are as follows.

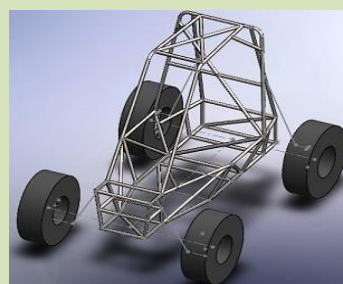
- AutoCAD
- Creo Parametric
- CATIA
- ANSYS
- Abacus
- Adams
- HyperMesh
- MATLAB & Simulink
- CNC Offline Simulation
- Mastercam
- Edgecam
- IronCAD



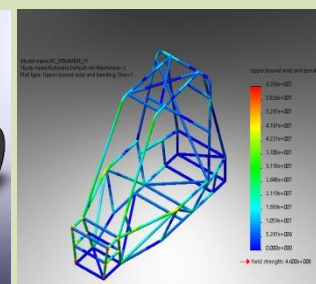
Vehicle Maintenance & Testing Laboratory



Department Library



Modeling



Analysis



Prototype

Research and Development

VNR Vignana Jyothi Institute of Engineering and Technology is one of the three colleges in Telangana state recognized by UGC as college of potential excellence. At VNRVJIET, the department of automobile engineering has dedicated team of faculty who are actively pursuing research projects and publishing research papers in reputed impact factor journals and presenting technical papers at various national / international platforms.

Key Research Areas

- Electric/Hybrid/Solar Vehicle Technologies
- Alternative Fuels
- Composite materials for automobiles
- Automotive Electronics
- Automotive manufacturing
- Rapid Prototyping/3D Printing

Ongoing Funded Research Projects

Evaluation of machinability characteristics of Ti-4Al-6V Titanium alloy with conventional and eco-friendly cutting fluids funded by ARDB, New Delhi.

Conferences / Workshops / Seminars / Training Programmes Conducted

During the last five years, the department has conducted number of national level workshops / seminars / training programmes, technical / guest lectures, etc.

Professional Societies and Associations

Students actively participate / organize events at international / national level through society of automotive engineers (SAE) and automobile engineering association (AEA) to promote organizational & leadership qualities and form network with experts world-wide.

Awards and Achievements

- University gold medal from JNTU, Hyderabad
- Best project award from TCS, Hyderabad, 2015
- Certificate from ARAI, Pune, 2015
- ISTE Best Student Innovator Award, 2018
- Gold Certificate for the innovation in IIA International Innovation Fair, 2019
- Participated in several events from 2011 onwards like Japan SAE competition, international Gokart competition, FSINDIA competition, JK Tyre Formula Design Challenge, Elite Gokart competitions, Formula Bharat competition, Baja SAE India, Supra SAE India, SAE Student Convention, SAEISS Aero Design Challenge, Auto Expo, etc.



G Sri Charan, best project award from Vice-President & Regional Head, TCS, 2015



N.R. Gopal Rao, University gold medal from VC, JNTUH, 2014



Mahindra Auto Quotient Quiz organized by Mahindra & Mahindra, 2015



Paper presentation certificate ARAI, 2015



Patent filed on Fuel Measurement Device, 2017



Certificate at SAE Convention Tier-III competition, 2018



ISTE Best Student Innovator Award for "Development of Foldable Electric Bike" in 2018



Gold Certificate for the innovation of "Electric Microcar" in IIA International Innovation Fair 2019



Formula car team in JSAE competition, Japan 2011



Team in BAJA SAEINDIA 2020

Placements

VNR Vignana Jyothi Institute of Engineering and Technology is ranked one among the top fifteen national level technical institutes, in terms of number of students receiving placement offers from reputed organizations from all over the country.

Certificate Courses

Certificate courses are tailor made to make students industry ready by developing various skills through hands-on training. The automobile engineering students undergo training in CATIA, HyperMesh, ANSYS, Creo, CNC/CAM, advanced programming skills, etc.

Collaboration with Industry and MoUs

- Jayem Automotives Pvt. Ltd., Coimbatore
- Voltronics Motors Pvt. Ltd., Hyderabad
- VVC Motors Pvt. Ltd., M&M, Hyderabad
- AMZ Automotive, Jaipur

Eminent Visitors to the Department

A brief list of distinguished personalities visited the department and shared their research experience and work expertise in automotive related fields.

- Mr. Hidehiko Numata, R&D, Honda Motors
- Mr. Rajendra H. Thanewala, R&D, Bajaj Auto
- Mr. G. Shraavan, Hyundai Mobis India
- Mr. J. Shashidhar, Hyundai Motor Group
- Mr. V.S. Venkatramaman, Advisor, M & M
- Padmashri Gnana Gadhi, Scientist, ISRO
- Mr. Bhaskar, BHEL, Hyderabad
- Dr. V. Vasudevarao, University of South Africa
- Dr. G.L. Samuel, IITM, Chennai
- Dr. Pankaj Kolhe, IITH, Hyderabad
- Dr. G.V.S. Sastry, IIT(BHU), Varanasi
- Dr. B. Venkatesham, IITH, Hyderabad

Open House

A platform to exhibit one's proficiency in engineering discipline in the form of projects. Every year students come up with innovative projects and experience multi dimensional interactions with experts at the end users.

Research and Consultancy Center

The institute has completed 48 projects worth Rs. 443.05 lakhs and has 30 ongoing projects worth Rs. 253.02 lakhs funded by industries, AICTE, UGC, DST and DRDO. Institute also directly funded an amount Rs. 2 Crores under the In-house research projects scheme.

Dr. Shaik Amjad

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Department Recruiting Partners



Range extended solar electric car



Development of Electric Microcar



Electric microcar with hub



Development Plug-in Hybrid Bike



Padmashri Gnana Gadhi, ISRO



Development Campus Electric Vehicle



Dr. V. Venkateswara Rao, DRDO



Development Foldable Electric Bike