

**VISION**

To be one of the world's esteemed training & education academies for advanced education & research in the field of mobility engineering.



**MISSION**

To train, educate and enrich knowledge base of mobility engineers through Industry-Academia interaction with an aim to develop human resources for ever expanding mobility sector.

**DETAILS OF B.TECH/M.TECH (AUTO) COURSE AT VIT / ARAI**

**OBJECTIVE:** These programs intend to develop a new breed of automotive engineers required for the task of design & development in the automotive industry. The final year is spent at ARAI Academy of ARAI, Pune

**B.Tech – Breakup & Credit:**

Engineering	60
Humanities	10
Management	05
Sciences	25
<b>Total</b>	<b>100%</b>

**Some Special Subjects:-**

- Engineering Mechanics
- Mechanics of Solids and Fluids
- Materials Engineering and Technology
- Engineering Thermodynamics
- Thermal and Heat Transfer
- Manufacturing Processes
- Mechanics of Machines
- Automotive Electricals & Electronics
- Automotive Engines
- Automotive Chassis
- Automotive Transmission Systems

**Some Special Electives:-**

- Design of Chassis Components
- Vehicle Body Engineering
- Two and Three Wheeler
- Vehicle Inspection & Maintenance
- Automotive Aerodynamics
- Automotive Control Systems
- Vehicle Dynamics
- Engine Design & Development
- Automotive Fuels and Energy
- Engine Emission and Control
- Auto Certification & Homologation
- Automotive HVAC
- Automotive Safety Systems
- Ergonomics and Styling
- Engine Testing and Certification

**M.Tech – Core Subjects:**

**First Year at VIT**

- Advanced Mathematical Methods
- Technical English (or) Foreign Language
- Automotive Body and Chassis Systems
- Engine Combustion and Emission
- Automotive Transmission System
- Vehicle Dynamics
- Automotive Electrical and Electronics

**Second Year at ARAI**

- Alternate Fuels
- Engine Design and Development
- Automotive Emission Control
- Vehicle and Engine Testing
- Vehicle Safety and Lighting
- Noise, Vibration and Harshness
- Soft Skills
- Project

**Some Special Electives:-**

- Powertrain Tribology
- Hybrid Electric Vehicles
- Computational Fluid Flow and Heat Transfer
- Finite Element Analysis & Methods
- Vehicle Maintenance and Diagnostics
- Vehicle Aerodynamics
- Vehicle Crashworthiness
- Design of Vehicle Drivelines
- Battery and Fuel Cell

The Students will do their 6 month project either at ARAI, University or at any automotive & allied Industry.

**INFRASTRUCTURE:**

• **VIT** has excellent infrastructure like the CAD/CAM Centers, Central Library, Computing Center to name a few. The Mechanical Engineering Department started in 1984, was renamed as the School of Mechanical & Building Sciences (SMBS) when VIT received the Deemed University status in 2001. It has well equipped laboratories like the Fluid Mechanics Lab, Thermal Engineering Lab, Advanced Manufacturing Process Lab, Tribology and Machine Dynamics Lab. A state-of-the-art Automotive Research Center was setup, with financial funding from DST, New Delhi in 2003 and the Center for Engineering Design, Automotive & Manufacturing Engineering was set up in 2012.

• **ARAI** is a well-known Automotive Research, Development, Testing & Certification Institute in the country. It has state-of-the-art testing facilities and laboratories like the PowerTrain Engineering Lab, Emission Certification Lab, Safety & Homologation Lab, Passive Safety Lab, Vehicle Evaluation Lab, Structural Dynamics Lab, Automotive Electronics Lab, Automotive Materials Lab and NVH & CAE Lab. The students are exposed to the latest trends, which help them to meet the requirements of the Automotive Industry.

**For B. Tech**

**(Mechanical Engineering with specialization in Automotive Engineering)**

th First class in 12 with a valid VIT Engineering Entrance Examination (VITEEE) Score.

**For M. Tech (Automotive Engineering)**

B.E/B.Tech/AMIE in Mechanical/Automobile/Production/Manufacturing Engineering or Mechatronics, with a valid VIT Masters Entrance Examination (VITMEE) Score. Preference is given to industry sponsored candidates.

**Tuition Fees: B. Tech : Approx. 1,55,000/- + others per year.**

**For M. Tech : Approx. 1,53,000/- + others per year.**

Hostel accommodation & Mess facility available at VIT University.

**HOW TO APPLY :** Application forms can be downloaded from VIT University website or can be obtained by contacting:

**Director - UG Admissions**

VIT University  
Vellore-632 014 Tamil Nadu, India.  
Phone: + 91-416-220 2125, 220 2168  
Fax: +91-416-224 5544, 224 5766  
Email: ugadmission@vit.ac.in  
Website: www.vit.ac.in

**Director - PG Admissions**

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