ASSOCIATION OF AUTOMOBILE ENGINEERS

SVCE | Sri Venkateswara College of Engineering

SAE COLLEGIATE CLUB OF SVCE

# DEPARTMENT OF AUTOMOBILE ENGINEERING

## PROGRAMS

B.E. AUTOMOBILE ENGINEERING

B.E. MECHANICAL ENGINEERING (AUTOMOBILE)

# AutoXploR

JANUARY'25,

VOLUME 4, ISSUE 7


SRI VENKATESWARA COLLEGE OF ENGINEERING

विद्या परा देवता

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## Editors

Dr. J. Venkatesan
Professor & HoD

Mr. R. Sakthivel
Assistant Professor

Dr. K. Paul Durai
Assistant Professor

## Students

Mr. M.R. Kaleeswaran
IV Year AUT

Mr. V. Shivabaalaj
III Year AUT

# DEPARTMENT VISION & MISSION

## Vision


To be recognized as a distinguished department renowned for producing competent and responsible mechanical engineers specialized in automobile engineering, meeting the dynamic demands of automotive industries on national and global scale, nurtured by exceptional facilities and support.

## Mission

- Igniting the passion of individuals for learning, research, and innovation by establishing collaborative learning through dynamic teaching methodologies, hands-on experiences, and research opportunities, to contribute in the advancement of automotive technologies.
- Advancing the competency of individuals through comprehensive academic curriculum, state-of-the-art-laboratory facilities, and training on critical thinking skills to comprehend industry requirements and provide innovative solutions in the automotive and associated domains.
- Providing engineering and technological solutions for challenges such as sustainability, safety, and efficient transportation at national and global levels, through interdisciplinary collaboration, and cutting-edge research in collaboration with industry partners, government agencies, and academic institutions.

# INDUSTRY COLLABORATIONS

## Memorandum of Understanding (MoU)

A unique concept of semester-in-industry programme was introduced for the students of Department of Automobile Engineering and Mechanical Engineering in collaboration with Sundram Fasteners Limited, Mahindra World City, Chennai, through a Memorandum of Understanding(MoU), which also offers industrial visits, in-plant training, internships, projects and more.

SVCE signed an MoU with Sundram Fasteners Limited on January 20, 2025. This collaboration enhances student employability by bridging academia and industry, providing hands-on experience, and fostering innovation in the automotive and manufacturing sectors.

# PROGRAM ORGANIZED

## Road Safety Awareness Program

**Dr. S. Premnath, Associate Professor delivered an insightful session on "Road Safety Awareness Programme for Riders" on January 27, 2025, in the Automobile Components Laboratory.**
**The session focused on responsibilities while driving, vehicle safety, dangerous driving behaviors, safe driving techniques, and the importance of good posture while driving.**

# FACULTY CONTRIBUTIONS

**Dr. J. Venkatesan, Professor and Head of the Department, attended a One-Day Faculty Development Program (FDP) on 'Principles of Outcome-Based Education' held on January 4, 2025. The program, organized by Vmedulife Software, provided valuable insights into effective teaching methodologies and strategies to align education with desired outcomes.**

# FACULTY CONTRIBUTIONS

**Mr. A. K. Boobalasenthilraj, Assistant Professor has successfully participated in the Online Faculty Development Programme held from January 20, 2025, to January 24, 2025, organized by the Department of Naval Architecture and Offshore Engineering, Academy of Maritime Education and Training (AMET), Deemed to be University, Chennai – 603112, Tamil Nadu.**


**Mr. J. Balakrishnan, Mechanic participated in a program on Embedded Systems in Automotive Applications at SKY SKILL Academy on January 13, 2025.**

# STUDENTS PARTICIPATION

## Udyamotsov PitchDeck 2025

**Mr. Kaviraj (III Year), Mr. Johin Gill (III Year), and Mr. Deepak Karthik (I Year),** Automobile Engineering students, have attended a Udyamotsov PitchDeck 2025 event held at St. Joseph College of Engineering, Chennai, on January 16, 2025 under the mentorship of **Mr. R. Sakthivel and Dr. Ramanajaneyulu Kolla**, Assistant Professors. The proposal seeks funding for their startup, focusing on the topic 'Intelligent Vehicle Security System and Automatic Headlight Control'.


# STUDENTS PARTICIPATION

## Internship

**Mr. Aakash R, IV Year has successfully completed a 2 Week Winter Internship Programme on "SIEMENS-NX CAD ESSENTIALS" conducted by Siemens Centre of Excellence, MIT Campus, Anna University from 20-01-2025 to 31-01-2025. He has secured "O" Grade with the score of 98%.**

Certificate No: 2024WIB20116

SIEMENS CENTRE OF EXCELLENCE

MIT CAMPUS, ANNA UNIVERSITY, CHENNAI - 600 044.

INTERNSHIP CERTIFICATE

This is to Certify that Mr.Aakash R of Sri Venkateshwara College of Engineering has successfully completed the 2 Weeks Winter Internship Programme on "SIEMENS-NX CAD ESSENTIALS" conducted by the Siemens Centre of Excellence, MIT Campus, Anna University from 20-01-2025 to 31-01-2025. He/She has secured 'O' Grade with a score of 98 %.

Mr.Prabakaran L

Dr. Sabitha Ramakrishnan

Dr.K.Ravichandran

# GRADUATION DAY

**The Department of Automobile Engineering proudly congratulates the Class of 2020-2024 on their Graduation Day, held on January 25, 2025, at "His Holiness Sri Jayendra Saraswathi Platinum Jubilee Complex", SVCE.**

# PROGRAM OUTCOMES (POs)

Students in the Automobile Engineering program should, at the time of their graduation, be able to

1. Apply the knowledge of mathematics, science, engineering fundamentals and concepts of Civil Engineering to the solution of complex engineering problems. **(Engineering knowledge)**
2. Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. **(Problem analysis)**
3. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. **(Design/Development of Solutions)**
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems. **(Conduct Investigations of Complex Problems)**
5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. **(Modern Tool Usage)**
6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. **(The Engineer and Society)**
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. **(Environment and Sustainability)**
8. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. **(Ethics)**
9. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. **(Individual and Team Work)**
10. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. **(Communication)**
11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. **(Project Management and Finance)**
12. Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change. **(Life-long Learning)**

# PROGRAM SPECIFIC OUTCOMES (PSOs)

Students in the Automobile Engineering program should, at the time of their graduation, be able to

- **PSO1: Design, analyze, and optimize automotive systems and components using principles of mechanical engineering and specialized knowledge in automobile engineering.**
- **PSO2: Integrate advanced technologies into automotive systems, including electric and hybrid powertrain, autonomous driving systems, vehicle-to-vehicle communication, and advanced driver assistance systems.**
- **PSO3: Plan, conduct, and interpret tests and experiments to validate the performance, reliability, and safety of automotive systems and components.**

# PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Automobile Engineering graduates during the first few years of graduation will:

- **PEO1: Graduates will have acquired a strong foundation in mechanical engineering principles and specialized knowledge in automobile engineering, adapted to technological advancements leading to successful careers in the automotive and manufacturing industries.**
- **PEO2: Graduates will showcase the ability for innovation and flexibility in embracing technological progress and evolving industry dynamics, fostering a commitment to ongoing learning, culminating further academic pursuits and research endeavors.**
- **PEO3: Graduates will understand the ethical, social, and environmental implications and adhere to the principles of ethical conduct, sustainability, and corporate responsibility to become responsible professionals and successful entrepreneurs.**

# PROGRAMS

- **B.E. Automobile Engineering**
- **B.E. Mechanical Engineering (Automobile)**

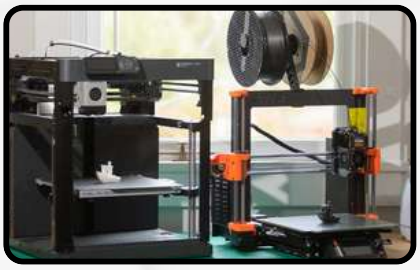
SVCE | Sri Venkateswara College of Engineering

# DEPARTMENT OF AUTOMOBILE ENGINEERING

## B.E. MECHANICAL ENGINEERING (AUTOMOBILE)

**(With a special focus on hybrid and electric vehicles)**

## EARN DEGREE WITH MUTILPLE CAREER OPPORTUNITIES




### Why Mechanical Engineering (Automobile) at SVCE?

- **First College** in **Tamil Nadu** to Introduce this program from the **Academic Year 2024-25**
- The College is an **ISO certified** institution and is accredited by **National Assessment and Accreditation Council (NAAC) with A+ Grade**
- Students can explore **multiple career opportunities** in leading mechanical and automobile industries in India and Abroad
- Special focus on **Hybrid & Electric Vehicles**
- **Semester-in-Abroad** programme in third year
- Exposure to real-world challenges and practices through **Semester-in-Industry** programme
- Earn **Honours / Minor degree** along with basic degree
- Guidance for 100 % placement
- **Full fee waiver** for Government School students under WINGS and SEEDS scholarship schemes
- **Management scholarships** on the basis of Merit Means, Merit-cum-Means, Economic Means, Performance in Sports and Performance in NCC activities

### Honours and Minor Degree

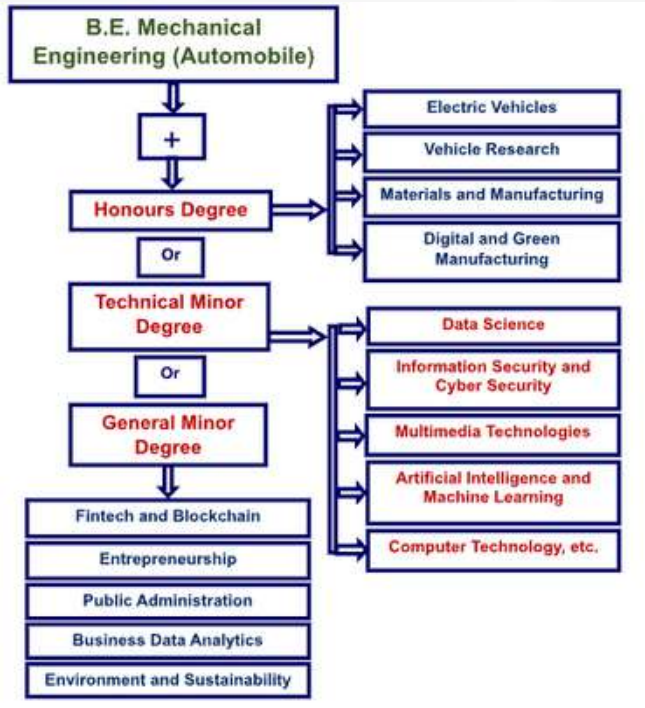
- In addition to the basic degree B.E. Mechanical Engineering (Automobile), the students can get an additional Honours Degree or Minor Degree by earning additional credits.

### Placement

An average of more than **95%** eligible students of Automobile Engineering got placed in reputed core and other companies

### Higher Studies

- Students are provided with **supportive training** pertaining to their future plans for doing a master's.
- Students pursue their master's in the field of Engineering and Technology and also in Business Administration and Management in reputed Universities worldwide including Clemson University-USA, Wisconsin Madisson University-USA, RWTH Aachen University-Germany, Inglostadt University-Germany, University of Sheffield-UK, Oxford Brookes University-UK, etc.

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