

*We Make The World To Move*

**VAAHAN**  
**Automobile Engineering**  
**Newsletter**

**January - June 2025, Issue No.10**

**A.D.Patel Institute of Technology**  
**New V. V. Nagar, Gujarat**

## FROM THE DESK OF PRINCIPAL



I congratulate Automobile Engineering department for releasing 9<sup>th</sup> issue of their newsletter “VAAHAN”. Automobile engineering department, ADIT has been creating a great value for its students, industry and society at large. The members of ADIT automobile engineering fraternity are contributing to various national and multinational companies in auto sector passionately. The department has well – equipped laboratory with state of the art instrumentation where students are imparted practical and hands on experience. Students have been participating in mega events like SAEBAJA, SUPRASAE, ATV, ETWDC and winning lead positions. My best wishes to all the staff members & students for the future endeavors.

Dr. V. N. Singh  
Principal

## FROM THE DESK OF HEAD OF DEPARTMENT



After successfully releasing 9<sup>th</sup> issue of the newsletter, I am very happy to bring out the 10<sup>th</sup> issue of the Automobile Engineering Department Newsletter “VAAHAN”. This newsletter outlines various activities that have taken place during the period of Jan’25 - Jun’25 and the achievements of faculties and students. I appreciate all the team members for their efforts in bringing out his newsletter.

Department of Automobile Engineering is putting all kind of efforts to ensure the overall progress of the students. Department of Automobile Engineering is thankful to Principal, Dr. V N Singh and Charutar Vidya Mandal, Vallabh Vidyanagar for providing all kind of facilities and support as and when needed. I wish that this activity of publishing the Newsletter will continue in future and will work as a platform for faculty members and students to show their work.

Dr. S. M Patel  
Head, Automobile Engineering Department

## MESSAGE FROM EDITORIAL BOARD



I would like to take this opportunity to wish all the graduating students all the very best for their future endeavors. It’s my privilege to offer thanks to my faculty colleagues for their contribution for the structuring of newsletter. Newsletter highlights events, activities, student’s achievements and faculty’s academic achievements.

Prof. Satyavrat P. Patel,  
Asst. Professor-AE



## **ABOUT CHARUTAR VIDYAMADAL & CVM UNIVERSITY**

At present, Charutar Vidya Mandal operates under the chairmanship of Er. Bhikhubhai B. Patel. More than 60 Educational Institutes starting from nursery to higher education and a sophisticated Research Institutes along with over 30,000 students on the rolls. CVM University established in the year 2020 and is spread over 700 acres and comprises of more than 25 institutes.



Release of 9<sup>th</sup> -issue of Automobile newsletter “VAAHAN” at ADIT

## **ABOUT INSTITUTE**

A. D. Patel Institute of Technology is one of the pioneer institutes imparting technical education located at New Vallabh Vidyanagar in the state of Gujarat, India. Established in the year 2000 and managed by Charutar Vidya Mandal (CVM), one of the leading trust of the nation established in 1948. The institute is located in satellite township of New Vallabh Vidyanagar having green natural environment and beautiful landscape near educational hub of the state, Vallabh Vidyanagar and Milk city Anand. Institute offers B.Tech. courses in Automobile Engineering, Electronics and Communication Engineering, Computer Engineering, Information Technology, Electrical Engineering, Mechanical Engineering, Food Processing Technology, Civil Engineering, Computer Science and Design, Artificial Intelligence (AI) & Data Science and Dairy Technology. Institute also offers Diploma Engineering in Automobile, Food Technology, Computer, Information Technology, Renewable Energy and Consumer Electronics.

## **ABOUT AUTOMOBILE ENGINEERING DEPARTMENT**

The department of Automobile Engineering was started in academic year 2003-2004. Department is having young and well qualified teaching faculties and well equipped laboratories. Department offers B.Tech in Automobile Engineering and also Diploma in Automobile Engineering.

## OUR VISION:

Instill enduring values and excellence in learning fundamental knowledge of automobile engineering, in universally relevant context for industry and society.

## OUR MISSION:

- Creating conducive environment for learning practical applications of latest technology through state-of-the-art laboratory facilities.
- Providing opportunities for interaction with industry experts, visits to automotive industry and automotive research organizations.
- Motivate and support students for participating in National level competition events for out of classroom practical learning for hands-on practice and development of a professional with ability to work in team and problem solving.

## Program Outcomes [POs]

|  |                                |
|--|--------------------------------|
| Engineering knowledge                      | Environment and sustainability |
| Problem analysis                           | Ethics                         |
| Design/development of solutions            | Individual and team work       |
| Conduct investigations of complex problems | Communication                  |
| Modern tool usage                          | Project management and finance |
| The engineer and society                   | Life-long learning             |

## Program Educational Outcome [PEOs]

- Ability to adapt contemporary automotive technologies to cater the needs of industry and society.
- Ability to apply the knowledge gained from Modern designing tools for developing future automotive technological products.
- Capability to take up innovative projects and inculcate entrepreneurship thinking process.

## DETAILS OF STAFF MEMBERS

| Name of faculty         | Designation            | Qualification           | Experience |
|-------------------------|------------------------|-------------------------|------------|
| Dr. Sanjay M. Patel     | Asst. Professor & Head | Ph.D.                   | 24 years   |
| Dr. Nimit M Patel       | Asst. Professor        | Ph.D.                   | 20 years   |
| Prof. Nikunj S. Yagnik  | Asst. Professor        | M.E, Ph.D.(Pursuing)    | 16 years   |
| Prof. Y. J. Gambhava    | Asst. Professor        | M.E, Ph.D.(Pursuing)    | 14 years   |
| Dr. Samarth J Shelat    | Asst. Professor        | Ph.D.                   | 14 years   |
| Prof. Simit B Prajapati | Asst. Professor        | M.E, Ph.D.(Pursuing)    | 14 years   |
| Prof. Satyavrat P Patel | Asst. Professor        | M.Tech, Ph.D (Pursuing) | 13 years   |
| Prof. Kuldip D Patel    | Ass. Professor         | M.Tech, Ph.D (Pursuing) | 14 years   |

## Details of Research Activity

Dr. Sanjay M. Patel, Head of Department and Dr. Nimit Patel, Assistant Professor had Published a patent under the title of "Real time battery state estimation for Electric Vehicles"

Dr. Sanjay M Patel and Dr. Samarth Shelat Presented a research paper on "Advancement in Vehicle Aerodynamics: A comprehensive review of Emerging Technologies in Automotive Engineering" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26,2025.

Dr. Sanjay M. Patel presented a research paper on "A pilot Investigation into the Impact of Algae-Derived Biodiesel on CI Engine Performance and Sustainability" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.

Dr. Samarth Shelat and Dr. Sanjay M Patel Presented a research paper on "Sustainable Fuel Development: Conversion and characterization of Waste Plastics into Environmentally Friendly Alternative Fuel" " Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26,2025.

Prof. Yagnesh Gambhava, Presented a review paper on "Driver Stress Detection in Automotive Systems: A Comparative review of Technologies and their Impact on Road safety" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.

Dr. Sanjay M. Patel and Prof. Satyavrat Patel presented a review paper on "India's Electric vehicle Journey: Key Trends and What Lies Ahead in 2025" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation - 2025, June-25-26, 2025.

Dr. Nimit Patel presented a review paper on "A Comparative study on Diesel Engine Performance and Emissions using Co-Pyrolysis Derived Bio-oil from Biomass and Plastic Fuel" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.

Dr. Sanjay M. Patel , Prof. Satyavrat Patel and Dr. Samarth Shelat presented a review paper on "Electric Vehicle market trends in India: A Comprehensive review and 2025 Perspective" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.

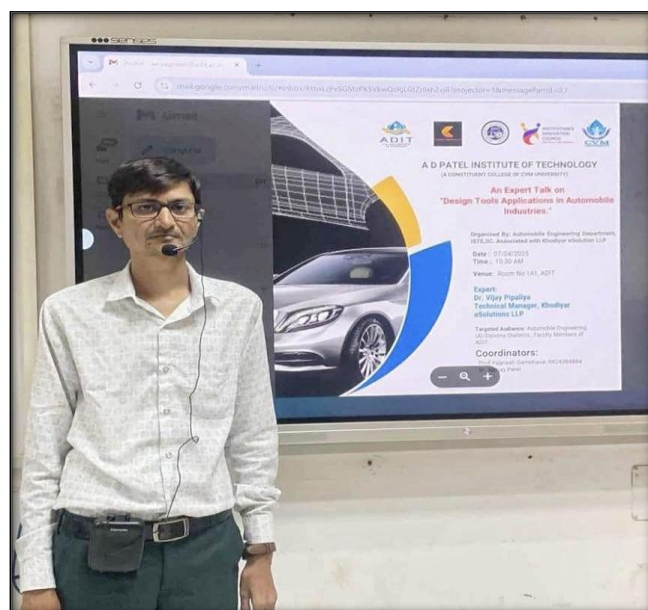
Dr Nimit patel presented a review paper on "Tribological Effect of surface Texturing on Piston -Piston ring Assembly: " Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.

Prof. Simit Prajapati, Presented a research paper on "Thin Layer Drying Kinetics of Jamun Slices and Modeling" Souvenir of International Conference on Synergic Development through Smart Technology & Digital Transformation -2025, June-25-26, 2025.



## Workshop/Expert Lecture organized by Department

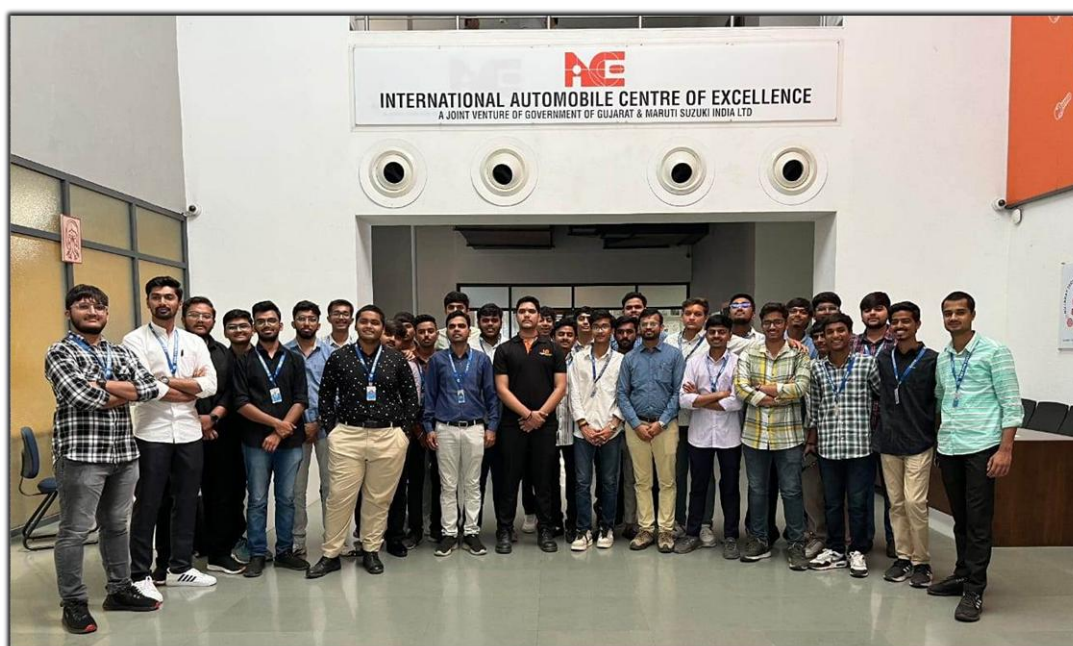
| Sr. NO | Topic  | Date     |
|--------|--|----------|
| 1      | An Expert Lecture on "Recent Automotive Advancement" by Monark Desai, Direct Sales Contractor, Canadian Property Stars, Canada.              | 13-02-25 |
| 2      | Workshop on "Innovative tips for the car AC maintenance System" by Mr. Vasant Sen, Proprietor, Div Auto Electric, Anand.                     | 18-03-25 |
| 3      | An Expert Lecture on "Design tools applications in Automobile Industries" by Dr. Vijay Pipaliya, Technical manager, Khodiyar E-Solution LLP. | 08-04-25 |
| 4      | An Expert talk on "Development of Hybrid Vehicles" by Dr. Mazar A. Sheikh, Asst. Prof, LDEC, Ahmedabad.                                      | 15-05-25 |





## Industrial / Technical Visits

| Sr. | Name of Industry/<br>Company                                     | Date of Visit | No of Students/<br>Level                                   | Name of Faculty/ Staff<br>Members                |
|-----|--|---------------|--|--|
| 1   | International Automobile<br>Centre of Excellence,<br>Gandhinagar | 21-02-25      | 28/2 <sup>nd</sup> B. Tech<br>&<br>2 <sup>nd</sup> Diploma | Prof. Simit Prajapati &<br>Prof. Satyavrat Patel |
| 2   | Caption Tractor Pvt. Ltd,<br>Rajkot                              | 07-03-25      | 07/3 <sup>rd</sup> B. Tech                                 | Dr. Nimit Patel &<br>Prof. Samarth J Shelat      |
| 3   | Tirth Agro Technology Pvt.<br>Ltd, Rajkot                        | 07-03-25      | 07/3 <sup>rd</sup> B. Tech                                 | Dr. Nimit Patel &<br>Prof. Samarth J Shelat      |



**International Automobile Centre of Excellence, Gandhinagar**



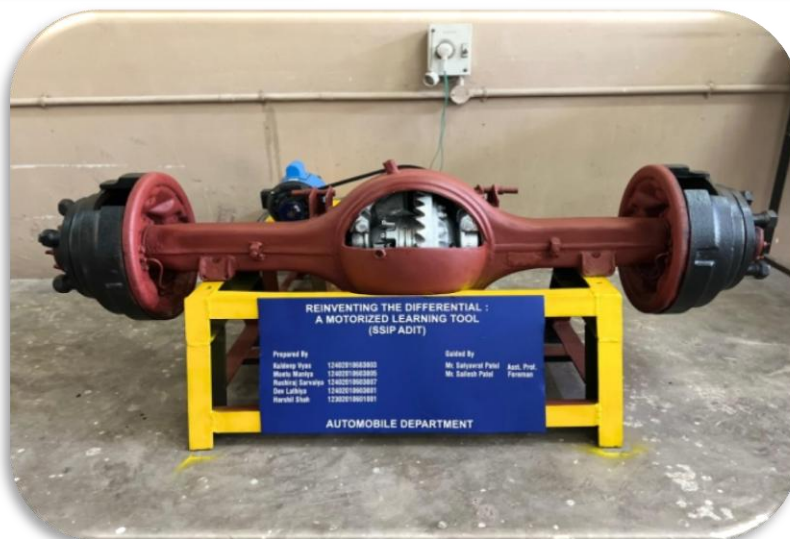
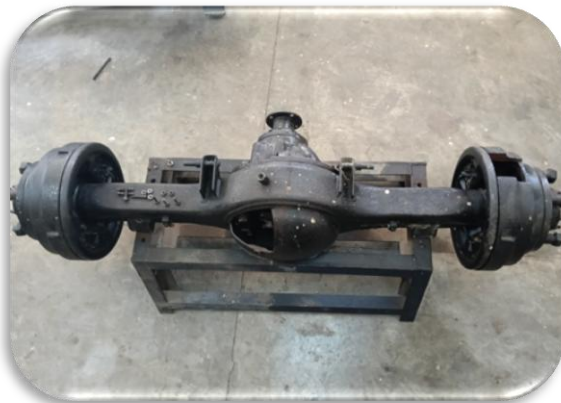
**Caption Tractor Pvt. Ltd, Rajkot**



**Tirth Agro Technology Pvt. Ltd, Rajkot**

### **Engineering Excellence: Project by Our Budding Automobilists**

Second-year B. Tech students have undertaken an innovative SSIP-funded project titled **"Reinventing the Differential: A Motorized Learning Tool"**. This project aims to simplify the understanding of the complex working of a differential mechanism through an interactive, motorized model. Designed as a hands-on educational aid, the tool enables students to visualize and experiment with the differential system commonly used in automobiles, making theoretical concepts more accessible and engaging.





## Top of the Class: Honoring Our Gold Medal Winner

We're delighted to share that Smit Modi has been awarded the Gold Medal for outstanding academic excellence in the Automobile Engineering batch of 2021–2025. This well-deserved recognition reflects his hard work, dedication, and consistent performance throughout the course.



## Faculty Achievement: Doctorate Earned in Automobile Engineering

Congratulations to Dr. Samarth Jayeshbhai Shelat on successful completion of his PhD from our prestigious The Charutar Vidya Mandal (CVM) University under supervision of Dr. Sanjay Maganlal Patel. His thesis, titled “An Experimental Analysis and Performance Evaluation of IC Engines Using Waste Plastic Fuel”, marks a significant contribution to the field of Automobile Engineering for The Faculty of Engineering and Technology.



## Revving Up Innovation: New Additions to the Automobile Engineering Lab

To strengthen practical learning and encourage innovative research, the Automobile Engineering Department has recently enhanced its lab with several new and modern tools. Among the latest additions are an OBD scanner, a working model of an MPFI system, a cut-section of a 4-stroke petrol engine, and a demonstration setup of an automotive electrical system. These upgrades are designed to give students hands-on experience with real-world automotive technologies, helping them better understand how classroom concepts are applied in the industry.





**AUTOMOBILE ENGINEERING DEPARTMENT**  
**(BATCH: 2021-2025)**  
**CVMU 8<sup>TH</sup> SEMESTER INTERSHIP**  
**(A.Y .2024-2025)**

| Sr. No. | Name of Student                  | Name of Company/Industry                       | Industry location  |
|---------|----------------------------------|--|--------------------|
| 1       | PATEL DEV NIMESHKUMAR            | Jaguar Land Rover Cargo Motors                 | Ahmedabad          |
| 2       | DHRUVIN RAKHASIA                 | TATA Motors Limited                            | Sanand             |
| 3       | VHORA HUSEN ZAKIRBHAI            | Patel Tractor Company                          | Anand              |
| 4       | KRISH VAGHELA                    | Jaguar Land Rover Cargo Motors                 | Ahmedabad          |
| 5       | PATEL MEET RAKESHKUMAR           | Tirth Hygiene Technology Pvt. Ltd. (Cleanland) | Nadiad             |
| 6       | SORATHIYA PREET KANAIYALAL       | Kia Car Showroom (Shreenath Kia)               | Surat              |
| 7       | SOLANKI RUSHIKESH PARIMALBHAI    | M M Vora Automobiles Pvt. Ltd.                 | Anand              |
| 8       | SHBHITO E BOBIN                  | Maruti Suzuki Service (Popular Vehicles)       | Kattappana, Kerala |
| 9       | SHAH VANDIT JAYESHBHAI           | M M Vora Automobiles Pvt. Ltd.                 | Anand              |
| 10      | PATEL ADIT PANKAJKUMAR           | Jaguar Land Rover Cargo Motors                 | Ahmedabad          |
| 11      | THAKOR DHRUV SHAILESHBHAI        | SP Ford  | Vadodara           |
| 12      | PATEL DHRUV KUMAR KALPESH KUMAR  | Tirth Hygiene Technology Pvt. Ltd. (Cleanland) | Nadiad             |
| 13      | PATEL GAURANG JAYESHBHAI         | Captain Tractors Private Limited               | Rajkot             |
| 14      | KISHAN KUMAR                     | Jay Ganesh Auto Hub                            | Rajkot             |
| 15      | PARMAR KULDEEP MANSINH           | Tirth Hygiene Technology Pvt. Ltd. (Cleanland) | Nadiad             |
| 16      | MAKHECHA MAHIR KALPESHBHAI       | Patel Tractor Company                          | Anand              |
| 17      | GAJJAR MIHIR RAKESHKUMAR         | Jaguar Land Rover Cargo Motors                 | Ahmedabad          |
| 18      | JOSHI RAJ HASMUKH                | Captain Tractors Private Limited               | Rajkot             |
| 19      | KADAM RISHI ROHIT                | Tirth Hygiene Technology Pvt. Ltd. (Cleanland) | Nadiad             |
| 20      | RUSHABHBHAI RAMCHANDRABHAI PATEL | Downtown Honda Auto Private Limited            | Anand              |
| 21      | PATEL SHAIL VIPULKUMAR           | Amar Cars Pvt. Ltd. (MARUTI SUZUKI LTD.)       | Anand              |
| 22      | SAVANT SHANKAR MOHAN             | Tirth Hygiene Technology Pvt. Ltd. (Cleanland) | Nadiad             |
| 23      | SMIT SANJAY MODI                 | TATA Motors Limited                            | Pune               |
| 24      | SIDDHPURIA TEJ PREMALKUMAR       | Nanavati Toyota                                | Surat              |
| 25      | MAKWANA VEDANT RAMESHBHAI        | BSTO Automotive Parts India Private Limited    | Halol              |
| 26      | BHAVSAR YASH ASHISHKUMAR         | Downtown Honda Auto Private Limited            | Anand              |

## ALUMNI TESTIMONIAL



Takshak Gandhi  
Business Development Manager  
Frenzelit GmbH, Germany  
Year of Passing: 2018

My journey at A. D. Patel Institute of Technology (ADIT), pursuing a bachelor's in automobile engineering, laid a strong foundation for my professional growth. The supportive faculty and the well-designed curriculum not only sharpened my technical skills but also inspired me to think creatively and pursue my dreams with confidence.



Rajan Jamadar  
Co-Founder and CMO,  
SWAP AUTOMOTIVE, A. bad  
Year of Passing: 2020

Choosing Automobile Engineering has been a turning point in my academic and professional journey. The hands-on experience in labs, exposure to new technologies, and support from faculty helped me build a strong foundation. It has not only boosted my confidence but also opened doors to exciting opportunities in the automotive industry. This journey has truly shaped my career path and fueled my passion for innovation in mobility. Solutions.

**Disclaimer:** All information published in this newsletter is based on institutional events and report generated at A.D Patel Institute of Technology. The purpose of this newsletter is for academic and educational only. The editor or publisher does not take responsibility for the content presented during the events. Errors, if any, are purely unintentional and readers are requested to communicate such errors to authorities.

### Contact us:

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[placements.ae@adit.ac.in](mailto:placements.ae@adit.ac.in); **Mob:** 9725735830

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