



**ADIT**  
A D PATEL INSTITUTE  
OF TECHNOLOGY



**CVVM**  
UNIVERSITY

*We Make The World To Move*

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

**August 2022- August 2023, Issue No. 7**

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

## **FROM THE DESK OF PRINCIPAL**



I congratulate Automobile Engineering department for releasing 7<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 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 6<sup>th</sup> issue of the newsletter, I am very happy to bring out the seventh issue of the Automobile Engineering Department Newsletter “VAAHAN”. This newsletter outlines various activities that have taken place during the period of Aug’22-Aug’23 and the achievements of faculties and students. I appreciate all the team members for their efforts in bringing out this 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 endeavours. It’s my privilege to offer thanks to my faculty colleagues for their contribution for the structuring newsletter. Newsletter highlights events, activities, students achievements and faculty’s academic achievements.

Prof. Kuldip D. Patel,  
Asst. Professor-AE

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

One of the greatest sons of India, Bharat Ratna, Late Shri Sardar Vallabhbhai Patel, inspired Shri Bhaikaka and Shri Bhikabhai Saheb for rural resurgence of post-independent India through education, and Charutar Vidya Mandal was born. Charutar Vidya Mandal was established in the year 1945 as a charitable trust with a prime objective of rural development through education to bring about the social awakening, social upliftment and enrichment. Over the subsequent years, Late Dr. H M Patel consolidated the efforts put in by the founders. Later on, in the 1990s, when Late Dr. C L Patel took over the reins of Charutar Vidya Mandal as the Chairman, the country was facing a major economic and ideological change paving the way for globalization and liberalization.

At present, Charutar Vidya Mandal operates under the chairmanship of Er. Bhikhubhai B. Patel. 50 Educational Institutes starting from nursery to higher education and a sophisticated Research Institutes along with over 30,000 students on the rolls. *CVM University was inaugurated on the day of Platinum Jubilee celebration of Charutar Vidya Mandal by Hon. Vice President of India.*



Release of 6<sup>th</sup> -issue of Automobile newsletter "VAAHAN" during Board of Management meet 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 and B. Tech in Computer Science and Design, Artificial Intelligence (AI) & Data Science and Dairy Technology.

### **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.

#### **OUR VISION:**

Instil 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

### **DETAILS OF STAFF MEMBERS**

<b>Name of faculty</b>	<b>Designation</b>	<b>Qualification</b>	<b>Experience</b>
<b>Dr. Sanjay M. Patel</b>	Asst. Professor & Head	Ph.D.	21 years
<b>Dr. Nimit M Patel</b>	Asst. Professor	Ph.D.	16 years
<b>Prof. Nikunj S. Yagnik</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	16 years
<b>Prof. Y. J. Gambhava</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	10 years
<b>Prof. Samarth J Shelat</b>	Asst. Professor	M.Tech, Ph.D. (Pursuing)	10 years
<b>Prof. Simit B Prajapati</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	10 years
<b>Prof. Kuldeep D. Patel</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	11 years

## DEPARTMENT ACHIEVEMENT

Ten students of final year Automobile Engineering with faculty mentor Dr. Nimit Patel has received Second Prize in Innovation Category, Price Rs. 7500/-in Electric Two-Wheeler Design Competition – 2022 (ETWDC) organized by SAEISS at SRM Institute of Science and Technology, Kattankulathur, Chennai during 17-18, October 2022.



## STUDENT'S ACHIEVEMENT

Students of 2016 graduated batch have started their startup firm on retrofitting technology, called “SWAP Automotive” and became entrepreneur. These students have visited the institute and interacted with current students and faculty members of the institute and explained about their work and technology towards making the nation green and electric.



### “COURSERA” Courses Attended by Faculty Members:

Title	Name of Faculty
Solar Energy Systems Overview	Dr. Sanjay M Patel
Successful Presentation	Dr. Sanjay M Patel
Understanding Research Methods	Prof. Yagnesh Gambhava
Everything is Measurable	Prof. Yagnesh Gambhava
Successful Presentation	Prof. Samarth J Shelat
Solar Energy Systems Overview	Prof.Simit B Prajapati
Successful Presentation	Prof.Simit B Prajapati
The Power of Team Culture	Prof.Simit B Prajapati
Inventory Analytics	Prof.Simit B Prajapati

## STUDENT'S 8<sup>th</sup> SEMESTER INDUSTRIAL INTERNSHIP

Students of 8<sup>th</sup> semester have been assigned for the industrial internship at various automotive firms such as, ATUL Auto Limited, Captain Tractors Pvt. Ltd., C. M. Smith & Sons Limited, TATA Motors Ltd-sanand, BSTO Automotive Parts India Private Ltd., Volkswagen, Ashtec Engineering Company, JP Research India Pvt Ltd., Escorts Limited, Honda Motors, Mercedes-Benz, Hyundai Motors, MG Motors, Maruti Suzuki, Toyota Motors, TVS Motors etc.



### Seminars/Workshop/conference attended by faculty members:

Sr	Name	Topic	Institute/Agency
1	Prof. Yagnesh Gambhava	Applications of Ansys for Engineering Problems	Marwadi University & ARK Info-solution Pvt. Ltd.
2	Samarth J Shelat	Connected Autonomous Electric Vehicle	MG Motos India Pvt. Ltd.
3	Samarth J Shelat	EV Systems (B2B)	Epowerx Larning Technologies Pvt. Ltd.
4	Samarth J Shelat	Autonomous Systems and Connected Cars	Epowerx Larning Technologies Pvt. Ltd.

### Seminar/Webinar organized by the department/cell:

Sr.	Name	Topic
1	Prof. Samarth Shelat	Workshop on Design of All Terrain Vehicle
2	Prof. Yagnesh Gambhava	Modern Automotive Technologies and its Applications
3	Prof. Samarth Shelat	Future Fuels for Vehicles
4	Prof. Samarth Shelat	Scope of EV in India
5	Prof. Simit Prajapati	Automotive Electronics

### Industrial Visits

Sr.	Name of Industry/Company	Date of Visit	No. of Students/Level	Name of Faculty/Staff Members
1	CEAT Tyres, Halol, Vadodara	03-03-2023	17/3 <sup>rd</sup>	Dr. Sanjay Patel, Dr. Nimit Patel & Prof. Yagnesh Gambhava
2	BSTO-Automotive Parts India Pvt. Ltd., Halol, Vadodara	18-03-2023	23/2 <sup>nd</sup>	Prof. Simit Prajapati & Prof. Samarth Shelat
3	Mircoflat Datums Pvt. Ltd., GIDC, V U Nagar, Anand	06-04-2023	14/2 <sup>nd</sup>	Prof. Simit Prajapati & Prof. Kuldip Patel





CEAT Tyres, Halol, Vadodara



BSTO-Automotive Parts India Pvt. Ltd., Halol, Vadodara



Mircoflat Datums Pvt. Ltd., GIDC, V U Nagar, Anand

## SUPRA SAEINDIA: Formula Student Competition



## DETAILS OF RESEARCH ACTIVITIES

Dr. Ajith Tom James published a research paper on "Assessment of sustainable maintenance performance of automobile garages in India", International Journal of Environmental Science and Technology.

Dr. Ajith Tom James published a research paper on "Investigation and analysis of implementation challenges for autonomous vehicles in developing countries using hybrid structural modeling", Technological Forecasting & Social Change, Volume 185.

Dr. Ajith Tom James published a research paper on "An integrated multi-criteria decision-making approach for estimating the importance of the cognitive function impairment risk factors", Decision Analytics Journal, Vol. 4, ISSN 2772-6622.

Dr. Sanjay Patel published a research paper on "A Review on Performance, Combustion and Emission Characteristics of CI Engine using Alternative Fuels and Its Blends with Nano Additive", The Ciencia & Engenharia - Science & Engineering Journal, Volume 10, Issue 1,

Dr. Sanjay Patel and Prof. Samarth Shelat published a research paper on " A Review on Performance and Emission characteristics of IC Engine running on Waste Plastic Fuel", METSZET Journal, Volume 7, Issue 12, ISSN: 2061-2710, pp:57-63.

Dr. Nimit Patel published a research paper on "Performance of Internal Combustion Engine with combined effect of recirculated exhaust gas and variable compression ratio", METSZET Journal, Volume 7, Issue 12, ISSN: 2061-2710, pp: 38-56

Dr. Nimit Patel, "A Review Paper Tribological Effect of Surface Texturing on Piston-Piston Ring Assembly", METSZET Journal, Volume 7, Issue 12, ISSN: 2061-2710.

Prof. Yagnesh Gambhava published a research paper on "To study the stress and displacement through analysis of lower arm of the vehicle by comparing with alloy steel" METSZET Journal, Volume 7, Issue 12, ISSN: 2061-2710, pp: 78-83.

## ALUMNI TESTIMONIAL



Name: Rahul Bhavsar  
Year of passing: 2022

Automobile Engineering in ADIT is one of the most valuable course. It was my honor to complete Bachelor of Engineering in ADIT. The faculties department is like family and culture to celebrate event, festivals were mind blowing. I am very much thankful to all the people who support me during my entire Engineering. Thank you.



Name: Ashutosh Shah  
Year of passing: 2022

“ADIT is filled with positive energy and exuberance. My first visit left me awestruck after looking at the atmosphere of the college. The campus is full of limitless opportunities. ADIT provided us a great platform for learning and enriching our knowledge. Our faculty put in immense effort to guide us in theoretical, practical and technical skill which helps us in our placement drives.”

**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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