



**ADIT**  
A D PATEL INSTITUTE  
OF TECHNOLOGY



**CVVM**  
UNIVERSITY

*We Make The World To Move*

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

**July- December 2021, Issue No. 5**

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

## FROM THE DESK OF PRINCIPAL



I congratulate Automobile Engineering department for releasing 5<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 4<sup>th</sup> issue of the newsletter, I am very happy to bring out the fifth issue of the Automobile Engineering Department Newsletter “VAAHAN”. This newsletter outlines various activities that have taken place during the period of Jan-Jun, 2021 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



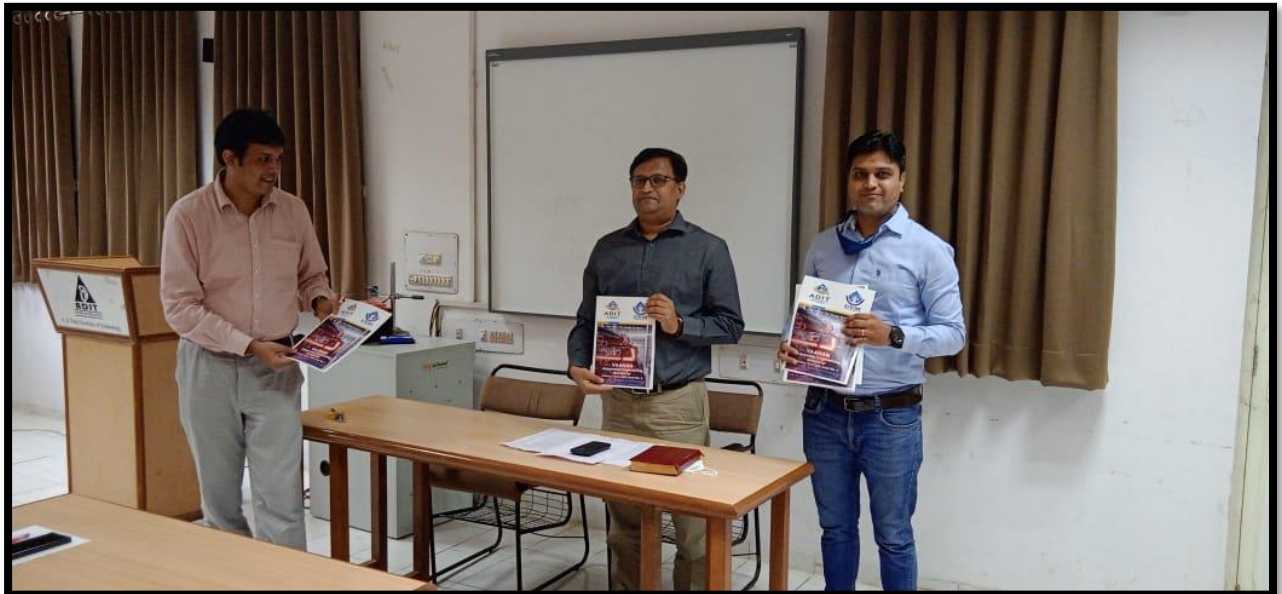
It's my privilege to offer thanks to my faculty colleagues for their contribution to structure the newsletter. During this COVID pandemic situation, all the academic activities were transferred to the blended learning mode with a new perspective of teaching methods. This edition includes glimpses of teaching-learning and co-curricular activities.

Prof. Kuldip D. Patel,  
Editor & Assistant Prof.-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 4<sup>th</sup> -issue of Automobile newsletter "VAAHAN" during core committee 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

***VAAHAN, THE NEWS LETTER OF AUTOMOBILE ENGINEERING, ADIT***

B.E. 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, and Artificial Intelligence (AI) & Data Science.

## **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. Ajith Tom James</b>	Asst. Professor	Ph.D.	20 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. Mahesh R. Phogat</b>	Asst. Professor	M.Tech.	11 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. Kuldip D. Patel</b>	Asst. Professor	M.E, Ph.D. (Pursuing)	11 years

## **. INDUSTRIAL VISITS**

<b>Sr.</b>	<b>Name of Industry/Company</b>	<b>Date of Visit</b>	<b>No. of Students/ Level</b>	<b>Name of Faculty/Staff Members</b>
1	Varroc Engg. Ltd.- Halol	06/10/2021	49 (4 <sup>th</sup> Level)	Prof. Nikunj Yagnik Prof. S. J. Shelat
2	C.M.Smith & Sons Ltd- Nadiad	07/10/2021	18 (3 <sup>rd</sup> Level)	Prof. Kuldeep D Patel Prof. Yagnesh Gambhva
3	GSRTC, Central Workshop, Ahmedabad	11/10/2021	29 (4 <sup>th</sup> Level)	Prof. S. B. Prajapati Prof. S. J. Shelat
4	Amul Dairy, Amul Chocolate Plants & Phonix Frozen- Mogar.	30/09/ 2021	34 (3 <sup>rd</sup> Level)	Prof. S. J. Shelat Prof. S. B. Prajapati



**Varroc Engineering. Ltd.- Halol**



**C. M. Smith & Sons Ltd-Nadiad**



**GSRTC, Central Workshop, Ahmedabad**



**Amul Dairy- Anand**



**Amul Chocolate Plant- Mogar, Anand**

## 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.**

## STUDENT'S PLACEMENT



**A D PATEL INSTITUTE OF TECHNOLOGY**  
(A CONSTITUENT COLLEGE OF CVM UNIVERSITY)



**Congratulations!!**  
Kishan Joshi  
(Automobile Engineering)



For getting placed at ARAI (Pune)  
as "Research Engineer", (CP) for B.V.G. India Limited

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ARAI: (Automotive Research Association of India), is the leading automotive R&D organization of the country established by automotive industry with the government of India.

## DETAILS OF RESEARCH ACTIVITIES

Dr. Ajith Tom James, published a research paper on “Selection of bus chassis for large fleet operators in India: An AHP-TOPSIS approach” Expert Systems with Applications (An International Journal) 186 (2021) 115760.

Dr. Ajith Tom James, published a research paper on “Development of a framework for safety performance measurement of belt conveyor systems”, International Journal of Productivity and Performance Management, Emerald Publishing Limited, 1741 - 0401.

Prof. Kuldip Patel presented on “Design and development of automotive catalytic convertor using non Nobel catalyst for the reduction of exhaust emission: A review” in International Conference on Green Chemistry and Engineering towards Sustainable Development-An Industrial Perspective held during 16-18<sup>th</sup> June, 2021 at SVNIT- Surat.

Simit Prajapati, presented a research paper on “Convective Hot Air Drying of Food Products: A Review” in AICTE sponsored International E- Conference on Post Covid Journey of Food Processing Sector, organized by Food Processing Technology Department, ADIT during 17<sup>th</sup> to 18<sup>th</sup> Sep. 2021.

Dr. Ajith Tom James, published a research paper on “identification and evaluation of barriers in implementation of electric mobility in india” in research in transportation business & management, science direct on 30<sup>th</sup> nov-2021.

Dr. Ajith Tom James, published a research paper on “Development of an industry 4.0 transformability index for manufacturing systems” in Industrial Robot: The international journal of robotics research and application © Emerald Publishing Limited [ISSN 0143-991X] on 22<sup>nd</sup> Dec-2021.

Prof. Nikunj Yagnik and Ansh Shah (2017 batch student) has submitted a patent on “Smart Seat Belt System”. Application/Ref. No. 202221002757, Docket No. 2970.

Prof. Nikunj Yagnik has published a book chapter on “Opportunities and risk: Use of Autonomous Vehicles in logistics” in Industry 4.0 Technologies for business excellence: Frameworks, Practices and Applications, Publisher: CRS Press (Taylor & Francis Group), ISBN: 9780367691172.



## DEAILS OF CO-CURRICULAR ACTIVITIES






**A Faculty Development Program (Online) On**  
**“Automobile Engineering : Past, Present & Future”**  
 21 - 28 December, 2021

**Sponsored By:**  
**AICTE - ISTE**

**Event Coordinators: Dr. S M Patel & Prof. Y J Gambhava**

**Organized By :**  
 Automobile Engineering Department  
 A D Patel Institute of Technology, New V V Nagar, Gujarat  
 (A Constituent College of CVM University)  
[www.adit.ac.in](http://www.adit.ac.in), [www.cvmu.edu.in](http://www.cvmu.edu.in)

***Dignitaries and Eminent speakers delivered talk during the FDP Sessions:***

Sr No	Date & Time	Photograph	Name of Expert	Title
1	21/12/2021 10:00AM to 11:30AM		Prof. Vijay Vaidya, Executive Secretary, ISTE, New Delhi.	Inauguration
			Col. B. Venkat, Director, Faculty Development Cell, AICTE. New Delhi.	Inauguration
2	21/12/2021 11:30AM to 1:00 PM		Mr. Piyush Ghongade Head, Vehicle Dynamics – CEAT Limited (R & D), Halol Gujarat	Effect of Tyres on Vehicle Handling & Future Testing Technologies
3	21/12/2021 2:30PM to 4:00PM		Mr. Darpan Shah Manager, VE Commercial Vehicles Ltd, Indore	Lean supply chain management
4	22/12/2021 10:00AM to 11:30AM		Mr. Sanjay Nibandhe Senior Deputy Director, ARAI, Pune	Automotive Safety -Active and Passive Controls
5	22/12/2021 11:30AM to 1:00 PM		Mr. Shaan Varma Director, Varmech Mobility Pvt Ltd (Carmate), Indore	Advancements in Automobile Engineering
6	22/12/2021 2:30PM to 4:00PM		Dr. Milind Yadav Professor, Finolex Academy of Mgmt & Tech. Ratnagiri, Maharashtra.	Futuristic Automotive Technologies

7	23/12/2021 10:00AM to 11:30AM		Dr. G.D. Bassan Professor & Head, Mechanical Engineering Department, DDU, Gujarat	Motor Insurance and its Application of Surveyor in Motor Claims
8	23/12/2021 11:30AM to 1:00 PM		Dr. Sanjay Patel Head, Automobile Engineering, ADIT, Gujarat	Future Scopes and Challenges in EV
9	23/12/2021 2:30PM to 4:00PM		Dr. Gauvrvadhuria Associate Professor, Mechanical Engg, DAV Institute of Engg & Technology, Jalandhar	National Education Policy- 2020
10	24/12/2021 10:00AM to 11:30AM		Dr. S SThipse Senior Deputy Director, ARAI, Pune	Overview of Alternative Fuel Technologies
11	24/12/2021 11:30AM to 1:00 PM		Mr. Rakesh Sharma Expert Engineer, Hero Motocorp Ltd, Jaipur, Rajasthan	Automotive Regulatory and Government Affairs
12	24/12/2021 2:30PM to 4:00PM		Mr. Samarjitsinh Waghela Lead, EV Designer, Yulu Bikes Pvt Ltd, Bangalore	Future of Automobile Design
13	27/12/2021 10:00AM to 11:30AM		Mr. Jimit Mehta Sr. Quality Engineer, Tesla Motors, USA	Challenges with Mass Production of EV Battery Pack
14	27/12/2021 11:30AM to 1:00 PM		Mr. Amit Khatri Proprietor, Misri Road Safety Trainers Ahmedabad	Road Safety in Vehicle Transportation
15	27/12/2021 2:30PM to 4:00PM		Kashmira (Krishna) Kotak Faculty, Art of Living Ahmedabad	Stress & Mind Management
16	28/12/2021 10:00AM to 11:30AM		Mr. Pradeep Chandrasekaran Associate Director, OLA Electric Tech. Pvt. Ltd. Bangalore.	Fuel Cells for Mobility
17	28/12/2021 11:30AM to 1:00 PM		Mr. Hardik Lakhani Senior Manager, VE Commercial Vehicles Ltd, Indore	Emission Norms and its Impact on Engine Development
18	28/12/2021 2:30PM to 4:00PM		Dr. R D Patel Executive Council Member, ISTE, New Delhi.	Valedictory

## ALUMNI TESTIMONIAL



**Meet Bhatt**  
**Deputy Manager,**  
**Electrical and Electronics**  
**Hero MotoCorp, Vadodara**  
**Year of Passing: 2010**

*"I will always cherish my decision of pursuing Automobile Engineering course from A. D. Patel Institute of Technology because of the industry relevant course content, practical exposure to automotive lab and guidance from highly skilled professors. The key highlight of the course was the opportunity to have 5 months internship in TATA Motors Ltd. Overall, I feel joining ADIT was one of the best and rewarding decisions in my."*



**Dharmdev Vyas**  
**Dy. Manager, Engine Dev. Lab**  
**ARAI-Pune**  
**Year of Passing: 2011**

*"In this journey to success, on the path of knowledge, ADIT has fuelled my grit and passion to always accelerate and lead the race in fulfilling my engineering dreams. ADIT has been the first milestone of many more achieved. In the most capable hands at the department, this has nurtured me. Students will always find their path enlightened".*



**Ashish Pal**  
**Assistant Manager (CME)**  
**Mahindra & Mahindra, Pune**  
**Year of Passing: 2018**

*"It was my inclination & passion for Automobiles from an Early Age that urged me to follow the same & ADIT gave me that spark which ignited this Fuel of Passion in me. The faculties are very supportive & knowledgeable & facilities provided by college for practical exposure has helped me to enhance my skills for the future. They have the capability to turn any student into a valuable Gem. I am very much grateful to all for the support that they had provided because of which, I was able to follow my passion".*



**Jimit Mehta**  
**Sr. Quality Engineer-HV Battery**  
**Tesla Motors-USA**  
**Year of Passing: 2016**

*“ADIT College has been one of the most enthralling journey of my life. It has been an institute which has helped me nurture my skills as an engineer and grow in leaps and bounds. Automobile department at ADIT has given me the support and confidence to grow both personally and professionally. This college has been like a family and I will always remember and cherish every moment of my life spent here.”*



**Ravi Patel**  
**Sr. Production Design Engineer**  
**Cub Campers Pvt. Ltd.**  
**NSW, Australia**  
**Year of Passing: 2017**

*“ADIT is the institute for enduring values and excellence in fundament of knowledge in engineering. I am thankful to the automobile engineering department staff to provide me all the engineering knowledge, design & development of solutions and connected me to engineering society.. I am very grateful to have such an amazing mentors, teachers and support staff from automobile engineering department”.*

**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.

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2. For Admission Inquiry:- Prof. Yagnesh Gambhva  
[ae.yagnesh@adit.ac.in](mailto:ae.yagnesh@adit.ac.in); **Mob:** 9824384884

3. For Placement Inquiry:- Prof. Samarth Shelat  
[placements.ae@adit.ac.in](mailto:placements.ae@adit.ac.in); **Mob:** 9725735830

**-: END:-**