



ADIT
A D PATEL INSTITUTE
OF TECHNOLOGY



CVVM
UNIVERSITY

We Make The World To Move

VAAHAN
Automobile Engineering
Newsletter

January - June 2021, Issue No. 4

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

FROM THE DESK OF PRINCIPAL



I congratulate Automobile Engineering department for releasing 4th 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 3rd issue of the newsletter, I am very happy to bring out the fourth 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



To release the fourth issue of the newsletter. It's my privilege to propose thanks to my faculty colleagues for their support to structure the newsletter. During this pandemic situation, all the academic activities were transferred to the “online” learning mode with a new perspective of teaching methods. Hence this edition includes glimpses of online teaching-learning activities.

Prof. Kuldip D. Patel,
Editor & Assistant Prof.-AE

ABOUT CHARUTAR VIDYAMADAL

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 3rd-issue of Automobile newsletter "VAAHAN" during BOM 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.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

Name of faculty	Designation	Qualification	Experience
Dr. Sanjay M. Patel	Asst. Professor & Head	Ph.D.	20 years
Dr. Ajith Tom James	Asst. Professor	Ph.D.	19 years
Dr. Nimit M Patel	Asst. Professor	Ph.D.	15 years
Prof. Nikunj S. Yagnik	Asst. Professor	M.E, Ph.D. (Pursuing)	15 years
Prof. Mahesh R. Phogat	Asst. Professor	M.Tech, Ph.D. (Pursuing)	10 years
Prof. Y. J. Gambhava	Asst. Professor	M.E, Ph.D. (Pursuing)	9 years
Prof. Samarth J Shelat	Asst. Professor	M.Tech, Ph.D. (Pursuing)	9 years
Prof. Simit B Prajapati	Asst. Professor	M.E, Ph.D. (Pursuing)	9 years
Prof. Kuldip D. Patel	Asst. Professor	M.E, Ph.D. (Pursuing)	10 years

EXPERT TALK FROM INDUSTRY DELEGATES

Sr.	Activity	Date	Name of Expert	Co-ordn.
1	Webinar on “Relevance of DFMA in Automotive Industry”	11/4/2021	Mr. Meet Bhatt Deputy Manager,Hero MotoCorp Ltd. Vadodara	Prof. Nikunj Yagnik
2	Webinar on “Introduction to Model-Based Development”	20/4/2021	Mr. Harsh Acharya System Validation Engineer, Ford Motor Company, Detroit- USA	Prof. K. D. Patel & Prof. S. J. Shelat
3	Webinar on “How tyre can be a part of road safety?”	24/4/2021	Mr. Vithba D. Utekar Manager, Vehicle Dynamics (R & D). CEAT Ltd.	Prof. Y. J. Gambhava

ADIT
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A WEBINAR ON
**RELEVANCE OF DFMA IN
AUTOMOTIVE INDUSTRY**

Organized By:
Automobile Engineering Department in
Association with SAE Collegiate club of
ADIT and ISTE Chapter

DATE : 11-04-2021
TIME : 10 a.m. to 11 a.m.
Target Audience: Students of Automobile and
Mechanical Engineering

REGISTER NOW!
<https://forms.gle/1311E4T4pp30M07>

FEEL FREE TO CONTACT
Prof. Nikunj Yagnik (9904457894)
Prof. Samit Prajapati (9898408940)

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A WEBINAR ON
**HOW TYRE CAN BE A
PART OF ROAD SAFETY?**

Organized By :
Automobile Engineering Department, Team
Prayas of COE in Road Safety & ISTE Chapter.

Date : 24th April 2021
Time: 11:00 AM
Target Audience :
Automobile/Mechanical Students,
Faculty Members & any Auto Enthusiastic.

Registration Link!
<https://forms.gle/mULdaWYwJjWWWWB9>

For Any Query, Feel Free to Contact
Prof. Yagnesh Gambhava 9824384884
Mr. Hemansu Zalavadiya 7984320671

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A WEBINAR ON
**INTRODUCTION TO
MODEL-BASED DEVELOPMENT**

Organized By :
Automobile Engineering Department in
Association with SAE Collegiate club of
ADIT and ISTE Chapter

Date : 20th April 2021
Time: 10:00 AM
Target Audience :
Automobile/Mechanical Engineering
students

Registration Link!
<https://forms.gle/9hAQnsJw93hysDK69>

For Any Query, Feel Free to Contact
Prof. Kuldip Patel 8128083309
Prof. Samarth Shelat 9725735830

FACULTY and STUDENT'S ACHIEVEMENTS



Team "ADWAY", winner of Electric Two wheeler Design Competition (ETWDC) 2020.
Guided by: Dr. Nimit Patel
ETWDC: A national-level technical event held under the SAEINDIA Southern Section.

Dr. Sanjay M. Patel and Prof. Kuldip D. Patel has reviewed a research paper article in International Journal of Automotive & Mechanical Engineering (IJAME), ISSN:2229-8649.

Dr. Sanjay Patel appointed as a chair person in evaluation committee in Toycathon 2021 organized by MHRD and AICTE during 22nd-24th June, 2021.

Dr. Sanjay Patel invited by NIRMANA News channel for panel discussion on new Electric Vehicle Policy in their special program 'To the point' on 22nd June, 2021

Dr. Sanjay Patel invited as a member of Board of Studies (BOS) for Automobile Engineering at Atmiya University, Rajkot on 28th June, 2021.

On behalf of the Automobile Engineering Department, Prof. Kuldip Patel has prepared videos on "Safe Driving Tips" & "Car Care Tips During Summer" for ADIT CVM University YouTube Channel.

Himanshu Zalavadiya: 2017 batch student appreciated being a campus ambassador by TCS.



Ansh Shah: Final year student has developed “Smart Seat Belt” system to ensure safety to the driver by wearing of seat belt. Systems of this project work in such a way that, car’s engine won’t start unless driver wears a seat belt. Project was funded by SSIP. Gujarat.

DETAILS OF RECENTLY PUBLISHED RESEARCH PAPERS



Dr. Ajith Tom James, has published a paper on “Service quality benchmarking of amusement parks using a hybrid approach” in International Journal of Quality & Reliability Management, Emerald Publishing Limited, 0265-671X.

Prof. Kuldip Patel, has published a paper 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, at SVNIT, Surat.

Prof. Kuldip D. Patel has published a paper on “Effect of pervoskite catalyst on ceramic and metallic type catalytic converter for the reduction of automotive exhaust emission” in the International Conference on Energy and Environment (ICEE 2021) organized by Jyothi Engineering College, Thrissur. Kerala, India.

DETAILS OF CO-CURRICULAR ACTIVITIES



**A Faculty Development Program (Online) On
"Alternate Fuels"**
08 - 12 February, 2021

Sponsored By:
AICTE Training & Learning (ATAL) Academy

Organized By :
Automobile Engineering Department
&
Mechanical Engineering Department (NBA Accredited)
A D Patel Institute of Technology, New V V Nagar, Gujarat
(A Constituent College of CVM University)
www.adit.ac.in , www.cvmu.edu.in

ATAL sponsored online FDP: Coordinators: Dr. Sanjay M. Patel
Prof. Yagesh Gambhva
Prof. Bala Dutt



BE A PART OF CHANGE
BE A PART OF TEAM PRAYAS



Poster Making Competition
Topic: **ROAD SAFETY**

A D Patel Institute of Technology
(A Constituent College of CVM University)
Presents
Poster Making Competition
Organised by:
Automobile Engineering Department,
Team PRAYAS of COE in Road Safety
and ISTE Chapter.

Instructions are provided in
the registration form

Last date for registration:
28th May, 2021
Poster Submission date:
8th June, 2021

Register here
<https://bit.ly/33RTQsZ>

Anyone can participate



Feel free to contact:
Prof. Yagnesh Gambhava 9824384884
Mr. Hemansu Zalavadiya 7984320671
Mr. Gaurav Patil 9724244211

Poster Making Competition on "Road Safety" organized by Prof. Yagnesh Gambhava & Student Coordinator Hemansu Zalavadia and Gaurav Patil

Technical Elocution Competition on "Electric vehicles" organized by Prof. Simit Prajapati and Prof. Kuldeep Patel.



A D PATEL INSTITUTE OF TECHNOLOGY
(A CONSTITUENT COLLEGE OF CVM UNIVERSITY)
NEW V V NAGAR, GUJARAT

Automobile Engineering Department in Association with Centre of Excellence in E-mobility,
SAE Collegiate Club of ADIT and ISTE Chapter
Presents

Technical Elocution Competition on
"Electric Vehicles"

Last date of registration :
17th June, 2021
Last date of recorded video submission: 27th June, 2021



Target Audience: Anyone can participate
(School & College students, Industry Delegates of any age group)

FEEL FREE TO CONTACT
Prof. Simit Prajapati : +91 9898408940
Prof. Kuldeep Patel : +91 8128083309

More instructions available in the Registration form
REGISTER NOW!
<https://www.adit.ac.in/RegistrationForm>



COMMUNICATING via SOCIAL NETWORK

Department has prepared small Automotive videos for you tube channel to make people aware about some technical facts related to the vehicles.

"Car Care during summer": In this video different vehicle carrying tips during the summer season discussed along with technical facts.



Car Care during summer: <https://www.youtube.com/watch?v=0wgICC5z9d8>

"Safe Driving Tips"



Watch this video before you drive...

"Safe Driving Tips": Our aim to prepare this video was, to discuss road accidental statistics across the country due to the driver's bad driving habits, and to advise safe driving tips to avoid the same.

Safe Driving Tips: https://www.youtube.com/watch?v=RCmmRUQo_co

Dr. Sanjay Patel was invited by NIRMANA news channel to discuss his views on Gujarat State Electric Vehicle policy-2021.



EV Policy on NIRMANA Tv: <https://www.youtube.com/watch?v=8fLxqga2uhI>

Gujarat State Electric Vehicle Policy 2021

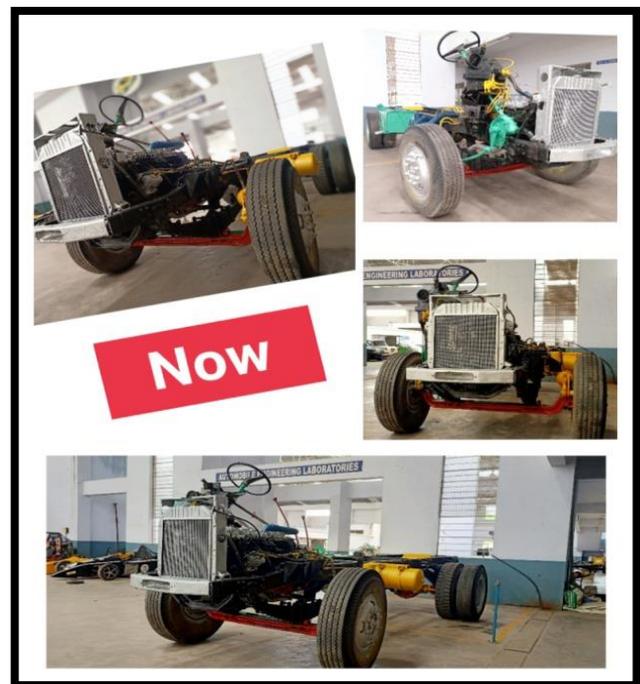
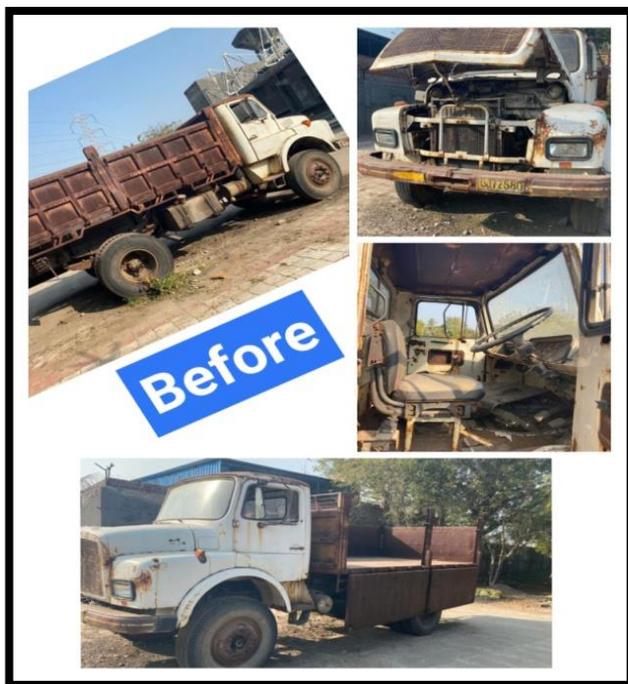


Gujarat State Electric Vehicle Policy-2021 was reviewed and discussed in a nutshell by Dr. S. M. Patel and Prof. Kuldeep D. Patel.

Review of Gujarat State EV Policy'2021: <https://www.youtube.com/watch?v=x0xDXzHNYxM>

HIGHLIGHTS OF 8th SEMESTER PROJECTS

Sr.	Project Title	Guide Name
1	Development of Portable Nitrogen Gas Filling Machine	Prof. N. S. Yagnik
2	Development of Novel Compressed Air Two Wheeler	Prof. N. S. Yagnik
3	Investigation and Analysis Of Vehicle Accidental Parts and Reconstruction (IDP)	Dr. S M Patel
4	Design and Development of Portable Vehicle Washer	Prof. S. J. Shelat
5	EV Cargo Trike	Dr. N. M. Patel
6	Design And Analysis Of Constant Mesh Gear Box	Prof. Yagnesh Ghambhava
7	Solar Powered Vendor Vehicle	Dr. N. M. Patel
8	CNG Electric Hybrid System	Dr. Ajith T James
9	Development Of Hybrid Two Wheeler	Dr. N. M. Patel
10	Aerodynamic Design Optimization and Simulation in Rear End of Hatchback Passenger Vehicle	Prof. S.J. Shelat
11	Electro pneumatic Clutch Control Device	Prof. K.D. Patel
12	Steering Propulsion System based Wheelchair	Prof. Yagnesh Ghambhava
13	Electric Beach Garbage Cleaner	Prof. N. S. Yagnik
14	Development of Steering Angle Display Unit	Prof. Simit Prajapati
15	Power Management Strategy of Hybrid Electric Vehicles Based on Electric Variable Transmissions	Prof. Simit Prajapati



New Feather added in Automobile laboratory: An old non working rusty dumper truck was turned into a valuable & useful component to demonstrate the “Heavy Vehicle Chassis and Driveline Systems” to the students.

STUDENTS WITH 10 SPI (8TH SEM), A.Y-2020-2021

Sr.	Name of Students	Sr.	Name of Students
1	VERMA SUNNY N.	13	PATEL SAVAN H.
2	PATEL SHAIL KUMAR V.	14	PATEL KRUTIK N.
3	PATEL PURAV B.	15	SHAH ANSH BANKIM
4	KHATRANI HARDIK J.	16	THAKAR ROHAN D.
5	SODAWALA MUSTUFA A.	17	SHAMVANI RAVI RAJESH
6	JOSHI KISHAN P.	18	PATEL HENSY M.
7	PATEL HARSH J.	19	PATEL SHIVAM Y.
8	VARIA NISARG A.	20	TRIVEDI PRANAV K.
9	AMIN AMARTYA J.	21	DESAI JIGNESH M.
10	DHOLIYA MEET R.	22	BHANDARI YASH R.
11	VAIDYA DHRUVAL N.	23	PANCHAL NANDANKUMAR V.
12	ZALAVADIYA HEMANSU S.	24	RATHOD ABHISHEK I.

STUDENT'S INTERNSHIP

More than 70 students have successfully completed online/offline summer internship at various automotive firms such as **CEAT Tyres-R&D, Volkswagen, Honda Motors, Mercedes-Benz, TATA Motors, Spark Innovation, Hyundai Motors, MG Motors, Maruti Suzuki, Toyota Motors, Azeotropy-IIT Bombay, TVS Motors, Force Motors, JK SPM, SKYY RIDERS Institutions, National Skill Development Corporation (NSDC)etc.**

Students have completed their internships on various topics such as **Electric Vehicle Technology, Advance Two Wheeler Technology, Tyre stone entrapment evaluation, Vehicle to Grid, Advance 4-wheeler Technology, Automobile and Internal Combustion Engine, Electric and Hybrid Electric Vehicle and Automotive Maintenance Techniques.**

EXPERT TALK

Expert talks on various emerging topics of automobile engineering were delivered by Dr. S. M. Patel, Dr. N. M. Patel, Prof. Yagnesh Gambhva, Prof. Simit Prajapati, Prof. Samarth Shelat and Prof. K. D. Patel at different diploma engineering colleges across the Gujarat.

ALUMNI TESTIMONIAL



Jignesh Malya
RTO-Gujarat
Year of Passing: 2009

“ADIT is the institute like an iron factory, where raw material converts and transform into sharp robust and shining steel. The process of teaching is like a Torsional treatment which removes impurities of concept and makes crystal clear resolution. ADIT's teaching staff is like a family member who gives a proper shape to each student like an ornament. I will never forget this place in my life.”



Manas Vora
Manager,
R&D, Electrical and Electronics
Mahindra & Mahindra Ltd., Pune
Year of Passing: 2011

“It was an enthusiasm and passion for Automobiles and a little luck that ultimately led me to pursue B.E at the ADIT. The experience and knowledge of automobile engineering, prepared me well for my current role and my future career aspirations. The faculties of the Automobile department were really knowledgeable and ADIT infrastructure was really helpful. I am very grateful to those who made this possible.”

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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ae.yagnesh@adit.ac.in; **Mob:** 9824384884

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

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