



ADIT
A D PATEL INSTITUTE
OF TECHNOLOGY



CVVM
UNIVERSITY

We Make The World To Move

VAAHAN
Automobile Engineering
Newsletter

January - July 2022, Issue No. 6

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

FROM THE DESK OF PRINCIPAL



I congratulate Automobile Engineering department for releasing 6th 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 5th issue of the newsletter, I am very happy to bring out the sixth issue of the Automobile Engineering Department Newsletter “VAAHAN”. This newsletter outlines various activities that have taken place during the period of Jan-Jun, 2022 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 5th -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

Name of faculty	Designation	Qualification	Experience
Dr. Sanjay M. Patel	Asst. Professor & Head	Ph.D.	21 years
Dr. Ajith Tom James	Asst. Professor	Ph.D.	20 years
Dr. Nimit M Patel	Asst. Professor	Ph.D.	16 years
Prof. Nikunj S. Yagnik	Asst. Professor	M.E, Ph.D. (Pursuing)	16 years
Prof. Mahesh R. Phogat	Asst. Professor	M.Tech.	11 years
Prof. Y. J. Gambhava	Asst. Professor	M.E, Ph.D. (Pursuing)	10 years
Prof. Samarth J Shelat	Asst. Professor	M.Tech, Ph.D. (Pursuing)	10 years
Prof. Simit B Prajapati	Asst. Professor	M.E, Ph.D. (Pursuing)	10 years
Prof. Kuldip D. Patel	Asst. Professor	M.E, Ph.D. (Pursuing)	11 years

INDUSTRY COLLABORATION

MG Motor India presented its latest model “HECTOR” to the department and signed an educational MOU to bridge the gap between industry and academia. The donation of HECTOR aims to provide an opportunity for students of ADIT to learn modern vehicle technology in details. On 16th March, 2022, the Vehicle was handed over by the different representatives from MG Motor, Mausam Joshi-HR, Ravi Mittal-Director Manufacturing, Sameer Jindal-Director Product Engineering, Archan Pujara-Manager Product Engineering, Ankur Sharma- AGM Product Engineering. The ceremony was successfully held with the special presence of Er. Bhikhubhai Patel: President-CVMU, Dr. P. M. Udani: DG-CVMU, Dr. V. N. Singh: Principal-ADIT, Dr. S. M. Patel: HOD-Automobile Engineering and staff of institute personnel.



INDUSTRIAL/TECHNICAL VISITS

Sr.	Name of Industry/Company	Date of Visit	No. of Students/Level	Name of Faculty/Staff Members
1	GSRTC Central Workshop, Ahmedabad	25/03/2022	40 (3rd Level)	Prof. Nimit Patel Prof. Yagnesh Gambhva
2	Maker Fest 2022 at Vadodara	26/02/2022	20 (2nd and 3rd Level)	Prof. Mahesh Phogat



GSRTC Central Workshop-Ahmedabad



Maker Fest 2022 - Vadodara

EXPERT TALK DELIVERED BY FACULTY MEMBERS

- I. Dr. Sanjay M Patel delivered an expert talk (online) on **“Futuristic Electric Vehicle Technology”** in the online FDP organized by B & B Polytechnic Institute of Technology, V V Nagar on 10th January 2022.
- II. Dr. Sanjay M Patel delivered an expert talk (online) on **'Basics of Electric Vehicles'** for the students of Finolex academy of Management and Technology, Ratnagiri, Maharashtra on 4th March 2022.
- III. Dr. Sanjay M Patel delivered an expert talk (online) on **'Futuristic EV Technology'** for the students of S. S. Gandhi College, Surat on 4th March 2022.
- IV. Dr. Sanjay M Patel delivered an expert talk (online) on 'Recent Advances in Electric Technologies: Design & Challenges' in Online STTP on organized by Mechanical Engineering Department, Sankalchand Patel College of Engineering, Visnagar on 1st April 2022.
- V. Dr. Sanjay M Patel delivered an expert talk (online) in STTP on **'Hybrid Electric Vehicle'** organized by Automobile Engineering Department, Parul Institute of Engineering & Technology (Diploma Studies), Parul University, Vadodara on 26th April 2022.
- VI. Prof. Simit Prajapati delivered a webinar on **“Vehicle Safety Systems”** for the students of Parul Institute of Engineering & Technology, Vadodara on 25th January 2022.
- VII. Prof. Kuldeep Patel delivered a webinar on **“Driveline System of Electric Vehicles”** for the students of Sigma Institute of Engineering, Vadodara on 12th February 2022.
- VIII. Dr. Nimit M Patel has been invited as the Jury Member at **“TECHEXPO 2022”** a project exhibition cum competition for final year degree & diploma Engineering, Applied Science and Agriculture students organized by Parul University, Vadodara on 26th February 2022.
- IX. Dr. Nimit M Patel delivered an expert talk on **'Electric Vehicle: Scopes and Challenges in Automobile Engineering'** for the students of Government Polytechnic, Bhavnagar on 14th March 2022.
- X. Prof. Samarth Shelat delivered an expert talk on **'Modernization in Automotive Industry and its Diagnosis'** for the students of Bhulabhai Vanmalibhai Patel Institute of Technology, Umrakh on 4th March 2022.
- XI. Prof. Samarth J. Shelat delivered an expert talk (online) in STTP on **'Hybrid Electric Vehicle'** organized by Automobile Engineering Department, Parul Institute of Engineering & Technology (Diploma Studies), Parul University, Vadodara on 26th April 2022.
- XII. Prof. Yagnesh J. Gambhava delivered an expert talk on **'Design & Construction of All Terrain Vehicle (ATV)'** for the students of Government Polytechnic, Halol on 10th March 2022.
- XIII. Prof. Yagnesh J. Gambhava delivered an expert talk on **'Design & Construction of All Terrain Vehicle (ATV)'** for the students of Government Polytechnic, Chhotaudepur on 15th March 2022.
- XIV. Prof. Yagnesh J. Gambhava delivered an expert talk on **'Design & Construction of All Terrain Vehicle (ATV)'** for the students of Government Polytechnic, Ahmedabad on 24th March 2022.

- XV. Dr. Ajith Tom James delivered an expert talk on '**Graph Theory and Matrix Approach in Engineering Optimization**' in Online FDP on Application of Optimization Techniques in Engineering (AOTE) organized by Zakir Husain College of Engineering and Technology, Aligarh Muslim University, Aligarh on 28th March 2022.

Technical Programs Conducted/Attended by Faculty Members

Type of Event	Date	Title	Speaker
<i>Expert Lecture</i>	11th May-22	Latent Trends in Automobile Internationally	Mr. Vijay & Mr. Shivam Executive Engineer' iACE, Gandhinagar
<i>Free Boot-camp</i>	25 th May-22	Fuel Cell Technology for Electric Vehicles	Mr. Ahad Shaikh Elite Techno Groups
<i>Webinar</i>	10 th Jan-22	Safe Vehicles - Safe Roads - Save lives	Dr. Ajith Tom James
<i>ATAL FDP</i>	28-04 Mar-22	Control System and Sensor Technology	Prof. Nikunj Yagnik
<i>ATAL FDP</i>	17-21 Jan-22	Redemption from Plastic Pollution: Indian Railways	Prof. Samarth Shelat
<i>ATAL FDP</i>	21-25 Feb-22	Electric Charging Stations for Vehicles	Prof. Simit Prajapati
<i>ATAL FDP</i>	21-25 Feb-22	Electric Charging Stations for Vehicles	Prof. Kuldip Patel
<i>ATAL FDP</i>	24-25 Mar-22	Biofuel Prospects & Challenges	Prof. Samarth Shelat
<i>ATAL FDP</i>	24-25 Mar-22	Biofuel Prospects & Challenges	Prof. Simit Prajapati

“COURSERA” Courses Attended by Faculty Members

Title	Name of Faculty
Product Development using AutoCAD	Dr. S. M. Patel
Electric Vehicles and Mobility	Dr. S. M. Patel
Everything is Measurable	Dr. S. M. Patel
XG-Boost 101: Used Cars Price Prediction	Dr. S. M. Patel
Electric Vehicles and Mobility	Dr. N. M. Patel
Robotics: Mobility	Prof. Nikunj S. Yagnik
Robotics: Aerial Robotics	Prof. Nikunj S. Yagnik
Product Development using AutoCAD	Prof. Yagnesh Gambhava
Autodesk Certified Professional: AutoCAD for Design and Drafting Exam Prep	Prof. Yagnesh Gambhava
Electric Vehicles and Mobility	Prof. Kuldip D. Patel
XG-Boost 101: Used Cars Price Prediction	Prof. Kuldip D. Patel
Introduction to Thermodynamics: Transferring Energy	Prof. Samarth J. Shelat
XG-Boost 101: Used Cars Price Prediction	Prof. Samarth J. Shelat
Introduction to Thermodynamics: Transferring Energy	Prof. Simit B. Prajapati
Product Development using AutoCAD	Prof. Mahesh Phogat

STUDENT'S 8th SEMESTER INDUSTRIAL INTERNSHIP

Students of 8th semester have successfully completed industrial internship for 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 Private Ltd., Escorts Limited, Honda Motors, Mercedes-Benz, Hyundai Motors, MG Motors, Maruti Suzuki, Toyota Motors, TVS Motors etc.**



STUDENT'S PLACEMENT

Students of graduating batch-2022 have got selected during on campus placement:

Sr.	Student Name	Company
1	Christian Sulay	SBM MARINE
2	Vohra Shahil Iliyasbhai	SBM MARINE
3	Sihodiya Bipin Hiralal	SBM MARINE
4	Patel Yagnik Rameshbhai	SBM MARINE
5	Mohammad Bootwala	SBM MARINE
6	Shah Ashutosh	Bajaj Allianz General Insurance Company



Representatives from iACE- Gandhinagar (International Automobile Centre of Excellence) Mr. Vijay, Mr. Shivam, Executive Engineer & Mr. Das; have visited the institute to deliver an expert talk on “Latent Trends in Automobile Internationally” and to interact with the students on automotive recent and future technologies.

DETAILS OF RESEARCH ACTIVITIES

Dr. Ajith Tom James published a research paper on “Development of a manufacturing sustainability index for MSMEs using a structural approach” in Journal of Cleaner Production, 353(2022) 131687.

Dr. Ajith Tom James published a research paper on “Development of an industry 4.0 transformability index for manufacturing systems” in The International Journal of Robotics Research and Application, Emerald Publishing Limited, 0143-991X.

Dr. Ajith Tom James published a research paper on “Analysis of human resource management challenges in implementation of industry 4.0 in Indian automobile industry”, Technological Forecasting & Social Change.

Dr. Ajith Tom James published a research paper on “Diagnosis tree development for automobile clutch system faults based on operating parameter deviations” in Life Cycle Reliability and Safety Engineering.

Prof. Kuldip Patel published a research paper on “Design and development of automotive catalytic converter using non-nobel catalyst for the reduction of exhaust emission: A review”, in Materials Today: Proceedings.

Dr. Sanjay Patel and Prof. Kuldip Patel has reviewed a research paper in International Journal of Automotive and Mechanical Engineering (IJAME), indexed by Scopus and emerging source citation index.

GLIMPSES OF STUDENT'S INDUSTRIAL INTERNSHIP



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.

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