

AUTO PULSE

VOLUME 2 • DECEMBER 2022 • YEAR-END EDITION

WELCOME TO THE DECEMBER EDITION

The Automobile Engineering Department presents its December 2022 newsletter with a blend of technical innovation, student development and campus life. This issue looks back at the second half of 2022, highlights India's growing electric-mobility ecosystem, and brings together major celebrations that strengthened the spirit of our college community.



TECHNOLOGY

EVs • Hydrogen • Batteries

STUDENT LIFE

Learning • Activities • Celebrations

AUTOMOTIVE FUTURE

Safety • Diagnostics • Sustainability

DEPARTMENT FOCUS

VISION

To generate value for students and other stakeholders in Automobile Engineering by consistently working towards the overall development of students, attaining an all-round in academic excellence, and promoting professional skills, social responsibilities and co-curricular activities.

M1

To ensure significant engagement in automobile engineering by imparting contemporary knowledge to students.

M2

To develop industry ready students by knowing the present needs of Automotive sector

M3

Promote social responsibility and cultivate entrepreneurial skills within the automobile industry.

BEYOND THE CLASSROOM



Automobile engineering learning continued beyond the classroom through workshop practice, safety awareness, communication activities and career-oriented exposure. The department's 2022 focus remained on practical skills, professional behaviour and readiness for the changing automotive sector.

CAMPUS LIFE • 2022

INDEPENDENCE DAY CELEBRATION

15 AUGUST 2022

The Independence Day programme reflected the values of freedom, unity and responsible citizenship. Students and staff came together to mark the national occasion and to remember the responsibilities that accompany the rights and opportunities of an independent nation.



ONAM CELEBRATION

SEPTEMBER 2022

The Onam celebration brought the campus community together through Kerala's traditional festive spirit. The programme highlighted cultural unity, friendship and participation, with the familiar colours of pookalam, traditional attire and shared celebrations creating a lively campus atmosphere.



CHRISTMAS CELEBRATION

DECEMBER 2022

The Christmas celebration added a warm year-end note to campus life. Students and staff shared greetings, festive activities and the message of peace, goodwill and togetherness, bringing the 2022 academic year to a cheerful close.



AUTOMOBILE INNOVATION NEWS

Selected developments from the second half of 2022 show how rapidly automotive engineering was moving toward electrification, hydrogen mobility, advanced charging and safer battery systems.

HYDROGEN FUEL-CELL TRUCKS

June 2022

Volvo Trucks announced plans for fuel-cell electric trucks using hydrogen, targeting long-distance and heavy-duty applications. The development illustrated the role of hydrogen in future zero-emission commercial transport.



HYUNDAI IONIQ 6

July 2022

Hyundai revealed the IONIQ 6 with a streamlined electric design, high-voltage charging capability and an estimated WLTP range above 610 km for selected configurations. The model highlighted progress in EV efficiency and charging.



RN22e & N VISION 74

July 2022

Hyundai introduced two rolling-lab concepts: RN22e, based on the IONIQ 6/E-GMP architecture, and N Vision 74, combining battery-electric and hydrogen fuel-cell technologies. Both explored future performance solutions.



INDIA'S EV MOMENTUM

2022 also brought a strong wave of electric-vehicle activity in India. Government year-end data recorded incentives for 6.63 lakh electric two-wheelers, 70,159 electric three-wheelers, 5,375 electric four-wheelers and 3,738 electric buses up to 6 December 2022. The same review reported 2,877 sanctioned EV charging stations and 83 commissioned by December 2022.

MAHINDRA XUV400

Introduced in September 2022 as Mahindra's first electric SUV, with a claimed 456 km Indian driving-cycle range and 0–100 km/h in 8.3 seconds.

TATA TIAGO EV

Announced on World EV Day in September and launched later that month, bringing a more accessible electric hatchback to the Indian market.

EV BATTERY SAFETY

India's amended AIS-156 requirements introduced tighter battery-safety provisions, including measures related to battery traceability and pack design.



WHAT THESE INNOVATIONS MEAN FOR AUTOMOBILE STUDENTS

- Battery electric vehicles increase the importance of high-voltage safety, battery management systems, power electronics and thermal management.
- Hydrogen mobility introduces fuel-cell stacks, hydrogen storage, energy management and safe handling as emerging areas of study.
- EV safety standards show why testing, validation, diagnostics and certification are essential parts of modern automotive engineering.
- Connected vehicles and advanced driver-assistance systems are expanding the role of sensors, software, communication networks and diagnostic tools.

EDITORIAL NOTE: Automotive innovation items are based on official announcements and contemporary industry/government reporting from June–December 2022. Campus celebration descriptions are newsletter-style summaries and can be edited with exact programme dates, chief guests and photographs before publication.