



Shri Yashwantrao Bhonsale Education Society's  
**YASHWANTRAO BHONSALE INSTITUTE OF TECHNOLOGY**

**(DTE CODE: 3470) (MSBTE CODE: 1742)**

Approved by AICTE, DTE & Affiliated to Mumbai University & MSBTE Mumbai  
(NBA Accredited ME, CE, EE Diploma Programs)

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## **Report Of Industrial Visit to BHARAT MOBILITY GLOBAL EXPO 2025**

From 20<sup>th</sup> & 24<sup>th</sup> January 2025, Yashwantrao Bhonsale Institute of Technology (Degree Section) organized an Industrial visit BHARAT MOBILITY GLOBAL EXPO 2025 at New Delhi, for all the second-year mechanical engineering degree students. Later they visited Heritage Transport Museum, Vrindavan & Udaipur city.

### **Objective:**

1. To generate awareness about emerging trends & future scope in automobile sector in India.
2. To develop a deeper understanding of role of mechanical engineers in design, development & manufacturing activities involved in automobile industry.
3. To generate awareness among students about diversity of fields with respect to automobile industry
4. To provide exposure to students about elements of travel/life & exploring newer avenues.

### **Summary:**

- Date: 20<sup>th</sup> to 24<sup>th</sup> January 2025
- Participants: 15 students & 2 Staff.
- Industry visit to:
  - BHARAT MOBILITY GLOBAL EXPO 2025, 20<sup>th</sup> & 21<sup>st</sup> January 2025.
  - Heritage Transport Museum, 22<sup>nd</sup> January 2025
  - Vrindavan/Mathura, 23<sup>rd</sup> January 2025
  - Udaipur, 24<sup>th</sup> January 2025

### **About BHARAT MOBILITY GLOBAL EXPO 2025**

This year's expo featured an impressive array of exhibits and displays from top automakers, component manufacturers, and technology providers. The expo was primarily categorized into 3 categories & organized at 3 different venues.

1. Bharat Mandapam, New Delhi
2. Yashobhoomi, Dwarka, New Delhi
3. India Expo Centre & Mart, Greater Noida



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**Day 1 & 2: The Automobile Show @Bharat Mandapam-New Delhi & The components show @ Yashobhoomi convention centre-Dwarka.**

Students visited the Automobile Show at Bharat Mandapam, New Delhi on 20th January 2025 and the components show at Yashobhoomi Convention centre-Dwarka on 21<sup>st</sup> January 2025.

Fossil fuels are a constantly depleting fuel source. Government of India is actively trying to push manufactures into doing extensive R&D on alternative fuel system, hybrid vehicle & newer & better powertrains for modern vehicles.



**Exhibits and Displays:**

Along with new/updated model launches of their current lineup, vehicle manufactures also displayed the result of their ongoing R & D process.

Existing manufacturers such as *TATA*, *Mahindra*, *SKODA*, Honda etc as well as new entrants such as *Vinfast* had displayed their product line up & R&D technology.

There were several **new products launches** as well, such as *TATA Siera*, *Maruti Electric Vitara Brezza*, *Toyota MPV*, *Mercedes Electric G Wagon*. Apart from traditional IC engine vehicles, electric vehicles, vehicles running on hybrid fuels, flex fuels, hydrogen etc were also on display. These vehicles showcased advanced electric powertrains, battery management systems, and charging technologies.



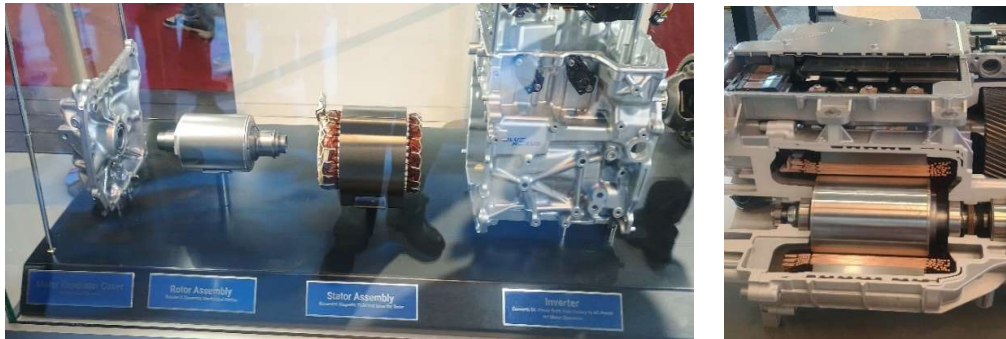


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**Vehicle Powertrains & Alternative Fuel System's:** Along with electric vehicles, manufacturers had displayed power trains running on alternative fuel such as Hydrogen, Compressed Bio Gas, Liquefied Natural Gas. Engines/vehicles capable on running flex fuels were also showcased (Ethanol Blend fuels)



**Electric Vehicles:**

**Electric Powertrains & Battery Management Systems:** Advanced electric powertrains, such as permanent magnet motors, induction motors, and hybrid powertrains were on display. Exhibitors also showcased advanced battery management systems, including lithium-ion batteries, nickel-metal hydride batteries, and supercapacitors.







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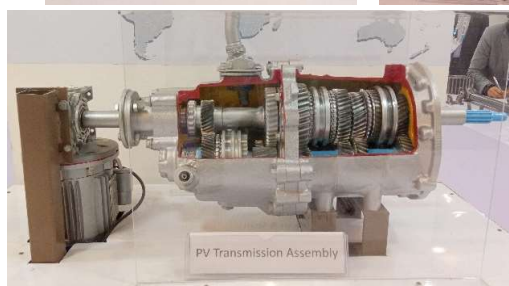
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**Charging Infrastructure:** Adoption of Electric vehicle in daily lives will be impossible without availability of proper charging infrastructure. Several exhibitors showcased charging solutions developed by them. Such as Fast-charging systems, Battery swapping technology, wireless charging technologies, and smart charging systems that optimize energy efficiency.

**Technologies and Innovations:**

1. **Advanced Powertrain system for passenger & commercial vehicles:**

Engine systems & vehicle components for passenger & commercial vehicles were on display. Suspension components, sway bars, pistons, connecting rods, gaskets, aftermarket accessories, were on display. Working models with cutout sections of gearboxes, Rear axles, Differentials, gearboxes, AWD transmission systems, Turbochargers etc were explained in depth to students by the exhibitors.



2. **Advanced Driver-Assistance Systems (ADAS) & Vehicle-to-Everything (V2X)**

**Communication:** Students saw demonstrations of ADAS, including lane departure warning systems, adaptive cruise control systems, and automatic emergency braking systems. exhibitors showcased V2X communication technologies, enabling vehicles to communicate with other vehicles, infrastructure, and pedestrians.



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**Key Takeaways:**

- 1. Electrification & Alternative fuel powertrains:** The expo reinforced shift in trend towards finding alternative solutions so as to reduce use of fossil fuels. Multiple options considered & their developing technologies were on display such as variety of Electric vehicles, hybrid vehicles, hydrogen engines, CBG & flex fuel engines etc.
- 2. Autonomous Technology:** Autonomous vehicles are becoming increasingly sophisticated, with several exhibitors showcasing their self-driving technologies.
- 3. Connectivity:** The expo highlighted the growing importance of connectivity in the automotive industry, with several exhibitors showcasing their vehicle-to-everything (V2X) communication solutions.
- 4. Sustainability:** The expo emphasized the need for sustainable mobility solutions, SIAM & ARAI have guidelines to manufactures & vendors for reusing & recycling of automobile components.



**Day 3: The Heritage Transport Museum at Haryana & Qutub Minar at Delhi**

Students first visited Qutub Minar at Delhi where they witnessed intricate & complex structure of Qutub Minar. They also marvelled at the metallurgical prowess of ancient Indian smiths who have made the Iron pillar which never develops rust, ever!

Next students visited the Heritage Transport Museum at Haryana. The Heritage Transport Museum has an immense collection of vintage cars, locomotives, bikes, boats, carts, cycles, palkhi etc. It documents the evolution of transportation systems throughout the history of mankind. It showcases how mankind developed & evolved various means of transportation, starting from labour intensive





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means such as *doli*, *palkhi*, *tanga*, *carts* to advanced mechanized forms of transportation like *motorcars*, *buses*, *trains*, & *boats*. It had a wide collection of vintage cars maintained in pristine condition from renown manufactures in the world like *Rolls Roys*, *Chrysler*, *Ford*, *Chevrolet* etc.



**Day 4 & 5: Vrindavan, Mathura & Udaipur City**

Next the students visited the birthplace of Hindu deity Lord Shri Krishna at Vrindavan & Mathura. They visited Banke Bihari Mandir, Prem Mandir, Iskcon temple & took blessings of lord shri Krishna for successful, fruitful & happy journey of life.

Next the students visited the colourful & heritage rich city of Udaipur. Students visited city palace, Jagdish Temple, Pichola Lake & concluded the day with blessings of Manshapurti Karni Mata



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temple atop a hill situated in the city. Entire city lays sprawled across & can be seen in its entirety from this hill. Students experienced ropeway ride to mountain top.



**Outcome:**

- Students gained valuable insights into the latest advancements & emerging trends in the automobile sector in India as well as on global scale.
- The innovative technologies on display were awe- inspiring. The expo reinforced the importance of sustainability, electrification, and connectivity in the automotive sector.
- Students look forward to applying their knowledge and skills to contribute to the growth of this exciting industry.
- Students got a chance to experience first-hand the evolutionary process of mankind through evolution of mechanized transportation.
- They also experienced the rich cultural heritage of Indian society & its deep rooting's in religion.

**List Of visiting members:**

Sr No	Name	Sr No	Name
1	Sanket Chandrakant Ghadi	10	Rahul Santosh Sail
2	Omkar Mahabaleshwar Gurav	11	Manav Umesh Sawant
3	Haridas Shriram Prashant	12	Pavanshree Rajendra Sawant Bhosale
4	Bhushan Vilas Joshi	13	Armaan Jubin Khan
5	Suyog Charudatta Joshi	14	Aaditya Netaji Savaratakar
6	Aditya Anand Majgaonkar	15	Khemraj Rajaram Naik
7	Chinmay Prakash Naik	16	Resham Chavan
8	Atharv Gangaram Nigudkar	17	Hemant Dongare-Faculty
9	Saish Krishna Nirgun	18	Varun Mahabal-Faculty



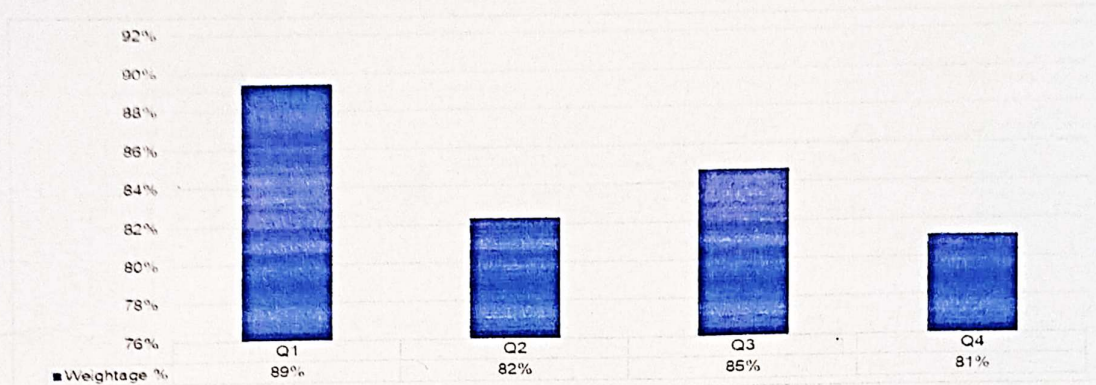


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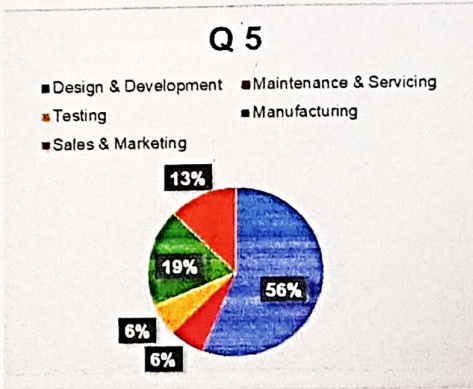
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**Feedback of Participants:**

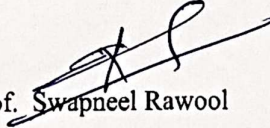


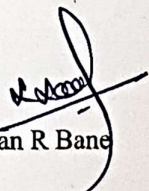
**Feedback questions:**

1. How confident are you about the future growth opportunities in the Indian automobile sector after attending this session?
2. How confident are you about pursuing a career in the automobile sector after learning about the role of mechanical engineers in automobile industry?
3. How likely are you to explore different fields within the automobile industry based on the information shared during this session?
4. How satisfied are you with the life experiences during the industry visit & subsequent visits to spots.
5. In which field did you gain better understanding of the various specializations in the automobile sector?



  
Prof. Varun Mahabal  
Event Co-Ordinator

  
Prof. Swapneel Rawool  
HOD-Mechanical  
Engineering

  
Dr Raman R Bane  
Principal YBIT  
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