

Mahindra inaugurates two state-of-the-art Development Test Facilities: Mahindra Passive Safety Lab (PSL) and Battery & Cell Research Lab

Auto

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- PSL is one of the biggest Passive Safety Testing facilities owned by an OEM across the world covering over 25000 Sq.m of land.
- Battery & Cell Research Lab is a state of art facility where cutting edge research work is done and built over 1374 Sq.m of land.
- Facilities are built by M/s SRC & M/s ICICO and designed by IDIADA, (Institut d'Investigació Aplicada de l'Automòbil - Institute for Applied Automotive Research, Spain) and RSB, A&E consultants, India.

Chennai, October 23, 2024: The historic city of Kanchipuram, in Tamil Nadu, known for its magnificent temples and the exquisite silk wear, now has new landmarks.

- The all-new and state-of-the-art Passive Safety Lab (PSL) and Advanced Cell Research Laboratory & Battery Proto Build Shop by Mahindra & Mahindra Ltd. (M&M) with an investment of over Rs. 300 crores.

M&M today officially opened its doors to the Passive safety lab and Battery & Cell Research Lab, for its engineers to test the safety of SUV products at

various load cases & perform research on Cell Technologies. Inaugurated by Dr. TRB.Rajaa, Honorable Minister for Industries, Investment Promotion & Commerce of Tamil Nadu Government, along with Mr. Velusamy R, President - Automotive Technology & Product Development M&M Ltd & Joint Managing Director - Mahindra Electric Automobile Limited and senior officials of Tamil Nadu Government, the PSL lab is arguably one of the biggest automotive Passive safety test labs owned by an automobile OEM in the world. The facility can perform with Bharat New car assessment program (BNCAP) along with Australian & European New Car Assessment Program (A/ENCAP)

Battery & Cell Research Lab will focus on research & analysis of Battery Cells, Modules & Packs aiming to achieve enhanced energy efficiency, Performance, lower charging time and longevity. This Lab will mark a significant milestone for M&M in its journey towards clean mobility solutions. Further, destructive & Nondestructive cell related tests can be conducted inhouse.

These Labs are just 55 km away from the Mahindra Research Valley (MRV) where all Mahindra SUVs are developed from scratch.

Speaking at the inauguration, Dr. T.R.B. Rajaa, *"It was a great pleasure to be part of the inauguration of Mahindra's Passive Safety Lab and the Advanced Cell Research Laboratory. Such cutting-edge facilities are a clear reflection of Mahindra's commitment to fostering innovation and advancing automotive technology. These state-of-the-art facilities reinforce Tamil Nadu's position as a*

leading global hub for research and development. Under the leadership of Honourable Chief Minister Thiru. MK Stalin, we are focused on supporting initiatives that align with our vision for a sustainable future and enhanced mobility solutions, further solidifying our position as the auto capital of India. I am confident that the innovations from these labs will contribute to reinforcing India's rightful place as a global R&D hub, thanks to its vast talent pool availability, especially in Tamil Nadu."

Mr. Velusamy R., President - Automotive Technology & Product

Development & Joint Managing Director M&M Ltd - Mahindra Electric

Automobile Limited said, *"With the launch of the Passive Safety lab and Battery & Cell Research Lab, we have once again reiterated our promise to deliver the best SUVs in the world. Safety & Sustainability is paramount for us at M&M, and our engineers will now work on these highly sophisticated labs to develop the most fascinating and safe SUVs for our customers. These labs will complement MRV where our products are engineered and Mahindra SUV Proving Track (MSPT), where cars are tested in variety of terrains and simulations, making it one of the most unique places to develop vehicles that are proudly conceived and built in India."*

Mahindra Passive safety lab – Fast Facts

- Mahindra PSL with two crash areas containing Movable block of 100-tonne capacity octagonal filming pit & high-speed lighting systems and a fixed block with effective track length of 306m.
- Tests can be performed for Maximum vehicle mass of 4Tonne and Maximum speed of 120kmph.

- Capable of performing Offset Deformable barrier test, Side Movable Deformable barrier test, Pole impact test with flying floor, Rear impact test as per the Regulatory requirement and Bharat New car assessment program.
- Movable progressive deformable barrier test, Advanced side Movable deformable barrier tests Full frontal tests as per EuroNCAP can also be performed.
- High speed cameras for recording the event of the crash test at up to 1000 frames per second and Data acquisition system with recording of up to 400 channels.
- Can perform Car to Car test for speed up to 80 Kmph.
- Has a special purpose crash testing area built exclusively for EV's with Fixed block and garages for observations.
- Vast Pool of dummies like the 50th percentile, EuroSID, 5th Percentile and Q series child dummies along with most advanced THOR and World SID dummies. Inhouse dummy certification facility for all dummies.
- Facility with dedicated preparation workshops, Tear down areas, vehicle painting areas and soaking rooms.
- The facility is upgradable to angular car-to-car test and Rollover test in future.

Mahindra Battery & Cell Research lab – Fast Facts

- Battery Pack Development is supported by advanced Laser Welding Facility and Robotic Flow Drill Screw Fastening for Battery Pack.
- To conduct research on cells and cell materials, The Lab is equipped with high end analytical Equipments like Field Emission Scanning Electron Microscopy, or FESEM, X-ray Diffraction, or XRD, Computed Tomography & CT scanning etc.
- This facility supports to prepare Prototype battery packs that undergo rigorous testing to ensure peak performance in real-world conditions.

About Mahindra

Founded in 1945, the Mahindra Group is one of the largest and most admired multinational federation of companies with 260,000 employees in over 100 countries. It enjoys a leadership position in farm equipment, utility vehicles, information technology and financial services in India and is the world's largest tractor company by volume. It has a strong presence in renewable energy, agriculture, logistics, hospitality, and real estate.

The Mahindra Group has a clear focus on leading ESG globally, enabling rural prosperity and enhancing urban living, with a goal to drive positive change in the lives of communities and stakeholders to enable them to Rise.

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