

Hyundai, IIT-M team up to fuel H₂ tech dreams

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India is finally making a move in hydrogen fuel cell technology for passenger cars too. Hyundai Motor India Ltd (HMIL) on Tuesday joined hands with the Indian Institute of Technology Madras (IIT-M) and Guidance Tamil Nadu to unveil the Hyundai HTWO Innovation Centre within the Discovery Satellite Campus of IIT Madras at Thaiyur in Chennai, Tamil Nadu.

The state-of-the-art research and development (R&D) hub is poised to serve as a catalyst for innovation in the field of green hydrogen technology and its ecosystem. This comes after the company showcased the Hyundai Nexo hydrogen FCEV (fuel cell electric vehicle) recently and joined hands with Indian Oil Corporation to conduct real-world tests on Indian roads. The only other company



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working on hydrogen cars in India is Toyota Kirloskar Motor, which is doing a pilot with the International Centre for Automotive Technology (ICAT) using the Toyota Mirai to study hydrogen fuel cell technology in Indian conditions. Already, pilot

runs are happening in commercial vehicle (CV) segment.

“Our vision goes beyond electrification. We see green hydrogen as a transformative energy solution with applications across sectors, from refining fuels to producing fertilisers and chemicals,” said Unsoo Kim, managing director, HMIL. This milestone marks the next phase in HMIL’s ₹100 crore commitment to pioneering green hydrogen innovation in India.

“For India to grow, Tamil Nadu needs to be growing by leaps and bounds, and that is exactly what the state is doing now through its amazing talent. The possibilities that are here in this amazing place are the possibilities that the rest of the world is only now looking up to. The Hyundai HTWO Innovation Centre is a crucial step towards indigenous hydrogen production,” said T R B Rajaa, industries minister

of Tamil Nadu.

IIT Madras will house this Centre, spread across a sprawling 65,000 square feet (sq ft) area on its Discovery Campus at Thaiyur, featuring advanced computational and experimental laboratories. The development of digital twins of hydrogen infrastructure along with customized test rigs and fabrication lines will contribute to the pilot-level evaluation of electrolyzers and fuel cells. It will also host test zones for containerised pilot demonstrators for industrial-scale products. Aligned with the Government of India’s (GoI’s) vision of energy independence by 2047, the facility will also drive R&D and demonstration activities to accelerate readiness and adoption across the green hydrogen value chain, making the Hyundai HTWO Innovation Centre a national hub for cost-effective, scalable hydrogen innovation.