IIT-H Partners with Japanese Firm for Development of Li-ion Batteries

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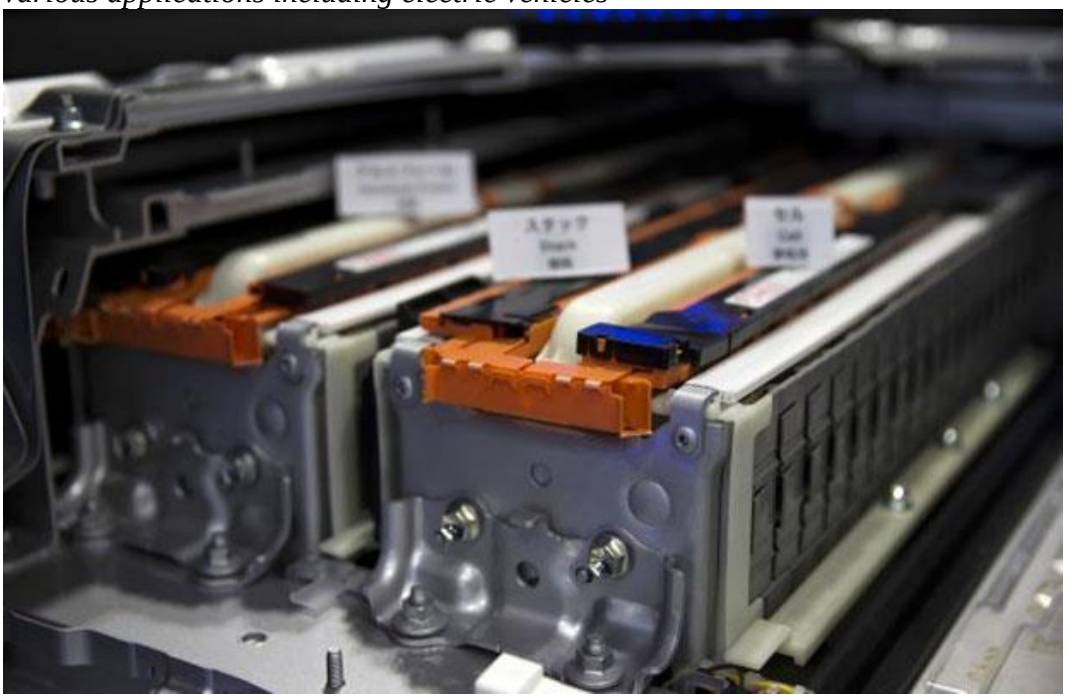

The Indian Institute of Technology, Hyderabad (IIT-H) has formed a collaboration with Japan-based ItsEV Inc, to develop lithium-ion batteries (Li-ion) for various applications including electric vehicles (EVs).

A research group led by Surendra K. Martha, Associate Professor, Department of Chemistry, IIT Hyderabad, has demonstrated that high-energy lithium-ion batteries have double the energy of similar batteries produced in 2018. The researchers have also demonstrated 100-200 mAh sodium-ion cells at the Research Centre Imarat (RCI) in the Defence Research and Development Organisation (DRDO) laboratory, in Hyderabad.

The two partners will now work on developing a li-ion battery that they expect to be superior to all existing batteries in the country. ItsEV would provide full technical support for training technicians, students, and scientists in Japan so that lithium-ion batteries can be developed indigenously and help increase EV production in India.

An international workshop hosted by IIT-H on the ‘Dawn of a New Era for the Indian Automotive Industry’ covered the development of new lithium-ion battery fits for high-temperature conditions, to promote a pollution-free EV world in India. A demonstration of an EV3Wheeler, developed by ItsEV Inc quipped with Japanese batteries, was also held on the occasion.

B.S. Murty, Director, IIT Hyderabad, said, “This demonstration of a lithium-ion battery-operated 3-wheeler electric vehicle (auto) will yield results 10 years down the line. We are looking to tie up with industries to take it for production in India.”

In July, it was reported that a team of researchers at the Indian Institute of Technology Hyderabad (IIT-H) have developed low-cost, environment-friendly solar cells by employing an off-the-shelf dye used to make kumkum or vermilion in India. According to the research published in the Solar Energy journal, the dye-sensitised solar cell (DSSC) is based on New Fuchsin (NF) dye with aqueous electrolyte and platinum-free counter electrodes.

Source: Saur Energy International
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