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Written by Express Mobility Desk December 12, 2023 16:05 IST



Pune-headquartered KPIT Technologies, an independent software integration partner to the automotive and mobility ecosystem has unveiled its Sodium (Na)-ion battery technology.

The company says it now joins a small and elite group of sustainability-focused organisations worldwide that have developed sodium-ion-based battery <u>technology</u>. This technology promises to reduce import dependency on core battery materials. It has several use-cases for automotive and mobility, especially for electric two-, three-wheelers and commercial vehicles. It has promising applications in stationary deployments, such as UPS backups and grid storage, as well as in the marine and defence sectors.



KPIT Tech says it demonstrates the exemplary and synergetic <u>industry</u>-academia collaboration between the company and the Indian Institute of Science Education and Research (IISER), Pune. The IISER Pune team led by Dr. Satishchandra Ogale have made remarkable contributions to material synthesis, characterisation and battery testing.

Ravi Pandit, Co-founder and Chairman, KPIT Technologies said, "Sustainability is at the heart of KPIT's vision. We are working on multiple technologies to reimagine mobility and accelerate the push towards cleaner transportation. As the electric mobility ecosystem matured, we were cognisant of having alternate battery technologies and localising the storage value chain. Our sodium-ion battery technology, completely reliant on Earth's abundant raw materials, is another testament to KPIT's commitment towards the sustainable mobility ecosystem. We look forward to partnering with manufacturing companies to commercialise this technology globally."

KPIT states it has been pioneering sustainable and efficient energy storage system simulation, design, development and integration for over 9-years. A team of PhDs and MTechs in Materials Science and Electrochemistry are behind the multiple global patents in the battery domain, more than 500,000 cycles of data tested on different chemistries and form factors, with over 500 cell prototypes fabricated, more than 100 production-intent cells fabricated and tested.

The key highlight of the sodium-ion battery technology includes -

- Extended lifespan with 80% capacity retention for 3000 6000 cycles
- Multiple variants having distinct performance characteristics and energy density ranging from 100-170
 Wh/Kg
- Faster charging than common lithium batteries
- Superior sub-zero temperature tolerance
- Excellent high-temperature tolerance with minimal thermal management
- Enhanced Safety
- Substantially reduce the cost of ownership and increase the vehicle uptime, thereby increasing income

As a core technology company, KPIT will continue to enhance battery technology. KPIT is inviting partners to manufacture and commercialise this technology.