BioSpectrum
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

IIT Ropar develops novel IoT device for cold chain management

01 June 2021 | News

The IoT device will help to secure transportation of vaccines, blood and body organs, etc.



Indian Institute of Technology, Ropar (IIT Ropar) in Punjab has developed a first-of-its-kind IoT device – AmbiTag that records real-time ambient temperature during the transportation of perishable products, vaccines and even body organs and blood.

That recorded temperature further helps to know whether that particular item transported from anywhere in the world is still usable or perished because of temperature variation. This information is particularly critical for vaccines including the COVID-19 vaccine, organs and blood transportation.

Shaped as USB device, AmbiTag continuously records the temperature of its immediate surroundings “from -40 to +80 degrees in any time zone for a full 90 days on a single charge. Most of the similar devices available in the international market record data only for 30- 60 days”, said AWaDH Project coordinator, Dr Suman Kumar.

He said it generates an alert when the temperature goes beyond a pre-set limit. The recorded data can be retrieved by connecting the USB with any computer. The device has been developed under Technology Innovation Hub – AWaDH (Agriculture and Water Technology Development Hub) and its Startup ScratchNest. AWaDH is a Govt of India project. Dr Kumar said that the device is certified with ISO 13485:2016, EN 12830:2018, CE & ROHS.

“So far, such devices are being imported by India in a massive quantity from other countries such as Singapore, Hong Kong, Ireland, and China," said Amit Bhatti, one of the founders and directors of ScratchNest.

AWaDH Project Director, Professor Pushpendra P Singh informed that IIT Ropar Technology Innovation Hub is gearing for mass-production of AmbiTag. “The device will be made available to all companies involved in COVID vaccine transportation from production facilities to the last mile vaccination centres in the country at the production cost of Rs 400," said Prof Singh.