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Nokia, IIT-M to connect rural India with broadband

Indian Institute of Technology-Madras (IIT-M) has signed a three-year partnership with Nokia to enhance broadband connectivity in rural India.

Nokia will fund and provide its technological expertise for research at IIT-M's Centre of Excellence for Wireless Technology (CEWiT). The research project is aligned with Nokia's sustainability strategy to enhance people's lives with technology and rural development, as well as the Centre's National Optical Fibre Network Initiative.

CEWiT at IIT-M will verify the feasibility of using unlicensed spectrum radio access technologies for cost-efficient, lastmile broadband connectivity and complement the centre's plans of providing optical fibre connectivity to 2.3 lakh gram panchayats by providing last-mile connectivity to their respective villages.

Li-iron phosphate cell powers e-bike

Bolt Motorbikes has come up with what it describes as a novel battery technology that powers a sleek electric bicycle. Sometimes called "the Tesla of electric bicycles," the company uses a lithium iron phosphate battery and boasts proprietary features that Bolt Motorbikes said are at par with similar technologies in the market.

At 63.5kg, the Bolt M-1 electric bicycle looks like a small Triumph or Bonneville motorcycle with two 13.61kg batteries in place of a gas tank. The throttle-less bike can ride on the street, uphill, or off-road, with Bluetooth connectivity to monitor battery and location.

"We wanted to build a bike that solves problems that we deal with every day when getting around a congested city," said Bolt CEO Josh Rasmussen, adding that the company will be sold out of its 2016 run of bikes by the end of February. "[When you buy a Bolt] you reduce your impact on the environment, on a Bolt you can go places where mopeds and motorcycles can't go."

GPS tech yields precision down to centimetre level

A team of researchers at the University of California, Riverside (UCR) has come up with what they describe as a more computationally efficient way to process data from the global positioning system (GPS). According to the team, the technology increases location accuracy from the metre-level down to a few centimetres.

The optimisation will be used in the development of autonomous vehicles, improved aviation and naval navigation systems, and precision technologies. It will also enable users to access centimetre-level accuracy location data through their mobile phones and wearable technologies, without increasing the demand for processing power.

HCL, Microsoft partner up to accelerate IoT-enabled solutions

HCL Technologies and Microsoft Corp came together to build an incubation centre in Redmond, Washington, in a bid to develop industry-specific IoT solutions, HCL revealed on Monday. They aim to provide advanced solutions based on machine-to-machine (M2M) technology in industrial manufacturing, life sciences and healthcare sectors.

Forrester Research has reported that one in five firms globally have adopted IoT, and 28 per cent intend to adopt the technology in the near future. The global IoT market is forecasted to reach up to \$7.1 trillion by 2020 (Rs.476.51 lakh crore) and the number of IoT connected devices are estimated to rise over 285 per cent in five years, from 13.4 billion to 38.5 billion devices.

The Big Three software services exporters—Tata Consultancy Services Ltd, Infosys Ltd and Wipro Ltd.—have adopted IoT and M-2-M solutions, apart from HCL. All are united in their aim to provide IoT-enabled solutions to their clients globally.

Start-ups to turn Lebanon into tech hub

Often, when we talk technology in the United States, conversation drifts the giants of the Silicon Valley in California or even the Silicon Gulch of Austin, Texas or the Silicon Prairie of Chicago. Now, however, a technology bastion is rising up in Lebanon, the small country bordered by Syria and Israel.

"Lebanon's growing tech scene is developing a cluster of entrepreneurs that have real potential to compete globally," said programme director of the U.K. Lebanon Tech Hub International Accelerator Programme.

Companies there are developing and/or manufacturing a variety of electronics-based products, from a smart cigarette lighter that reports how many smokes you have had to a cardiac monitor that delivers real time alerts to your doctor.