Stay connected to everything

By Ashwin Khan , Pune Mirror | Mar 15, 2015, 02.30 AM IST

The Internet of Things, a slowly growing tech movement in the city, could soon let you switch off the geyser at home from your smartphone in office.

The Internet of things (IoT) is fast becoming a subject of interest in Pune. It's basically a computing concept that aims to connect appliances to the Internet. Using this technology, gadgets equipped with embedded devices can intelligently communicate with one another without requiring human-to-computer interaction.

Such is the enthusiasm generated by the technology that IoT was the key topic discussed at the NASSCOM Product Enclave 2015 hosted at a city hotel on Saturday. And, quite recently, Jurgen Mossinger, Head of Business Unit at Robert Bosch Engineering and Business Solutions, India, was in Pune to give a presentation on the subject. Even the government has shown keen interest in the concept by proposing a policy to create a $15 billion IoT industry in India by 2020.

But when did IoT start trending in Pune? Chetan Patil, an IoT enthusiast, has the answer: "I remember reading an email in 2013 in a forum pitching the idea to start a meetup for IoT buffs. Since then, IoT has become a hot topic of discussion among IT professionals."

"It sounds good as a buzzword, but to make it user-friendly, we need to first make it user-worthy. The technology has to evolve in terms of daily use and how it could improve the cost of living," adds Patil.

Interestingly, city-based startups are already making headway in IoT. Revealing Hour Creations is one such startup, which created the Tah, a prototyping board that allows users to control appliances from remote locations using a smartphone. "You can access your home from practically any part of the world. For instance, if you have forgotten to switch off the geyser, it's possible to switch it off using a smartphone," smiles Nishant Modak, co-founder of Revealing Hour Creations.

Currently, the startup is in the process of setting up their product at Niwant Andh Mukta Vikasalay, an NGO dedicated to helping the visually impaired. Siddhant Chothe of Niwant, who's tested an IoT enabled device, explains how it works: "We are creating an automated home environment by adapting to the technology. First, a Raspberry Pi (a low cost, credit-card sized computer) is fitted inside a room. This compact device has the capabilities of a desktop computer. The Raspberry Pi works along with an embedded device installed inside a household switchboard. These devices are connected to the Internet via a wireless router and can be accessed with an app on a smartphone. Using these gadgets, we can control the switchboard at Niwant to turn off the lights or switch on ceiling fans."

"Being visually impaired we often forget to switch off the lights at Niwant, but now we don't have to worry about that anymore," smiles Chothe. Another user, Hardeep Pherwani, an entrepreneur who's been using the system for more than four months, adds: The best part about this home automation system is that I can access it from anywhere. I live in a duplex, where someone invariably forgets to switch off the lights, but I can take care of the situation while sitting at another location. Besides, I don't even have to remember to switch off the lights in my garden anymore — the system does it for me."

Then there is CarIQ. The goal of this startup is to make cars smarter working on the premise of IoT. CarIQ works with what is called the Connected Car Platform that derives data from the car's microcomputer, and posts it to servers hosted on the Cloud (which is a network of servers). This data can be analysed to gauge the condition of a car. "New technology is making cars smarter by the day. It's now possible to know the state of your car without having to visit a mechanic," says Nikhil John, a spokesperson for CarIQ. The startup has already sold around 250

devices to tech and auto enthusiasts in cities across India. They are at the moment collecting feedback from the users and will officially launch their product sometime this year.

According to Modak, the biggest challenge faced by startups working on IoT is finding people who are passionate about the technology. "We aren't interested in hiring techies, who are looking for just another job. They have to be enthusiastic about working on products that will further advance the usefulness of IoT," he says. On top of that, big players like Apple are prepping up to join the IoT bandwagon. Apple is also working on a 'smart home' platform that will allow people to outfit household devices that use its HomeKit automation technology.

Besides, tech companies like Intel, Google and Bosch have started marking their territory in this sector by coming up with their own IoT taglines. The growing interest in the technology hinges on the fact that by 2020, 50 billion devices will be connected to the Internet. On a much larger scale, the proposed IoT policy is in line with the government's vision to develop 100 smart cities in the country. For this purpose, Rs 7,060 crore has been allocated in the current year's Budget.

Going by the zeal inspired by IoT, in the foreseeable future we might come across waste containers fitted with small sensors that would be able to notify authorities that it's not been properly cleaned. IoT could even manage a city's water and power supply effectively. In reality, that's one of the bigger goals of IoT— to create a smart environment — where big data is analysed to make our lives a little less complicated.

ALL ABOUT IoT

♦ At a very basic level, IoT refers to devices that can sense aspects of the real world like temperature, lighting and the presence or absence of people or objects.

♦ IoT devices are enabled by Wireless Sensor Network (WSN) technologies, which cuts across many areas of modern-day living.

♦ This offers the ability to measure, infer and understand environmental indicators, from delicate ecologies and natural resources to urban environments.

♦ In the coming years, IoT will be ubiquitous: Smart Homes, Smart Industries and Smart Wearables will be built upon IoT.

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- CHETAN PATIL, IT PROFESSIONAL