



When Smart Things Operate at the Cloud Edge

Potentials, Challenges, and Solutions

Date:

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Time:

10:00-11:30 am

Location:

KAUST Building 1, Level 3,
Conference room 3119,
(KAUST), Thuwal

Lecturer

Dr. Bechir Hamdaoui
Associate Professor in the
School of Electrical
Engineering and Computer
Science at Oregon State
University, Oregon, USA

*For Sponsorship or more
details contact*

*Dr. Abdullah Almuttiri at
a.s.a@ieee.org*

Abstract

Internet of Things (IoT) emerges as an unprecedented paradigm with great potentials for changing how people interact, think and live. Its enormous impact lies in making existing Internet applications and services feasible in ways that were previously impossible, as well as in paving the way for the emergence of a wide range of new, Internet-scale applications and services, such as real-time video surveillance, precision healthcare, smart agriculture, augmented reality, and environmental monitoring and control.

These applications rely on large numbers of IoT devices, usually equipped with various sensing capabilities, to gather large amounts of streamed data and collaboratively process it to support and enable decision making and actions in real-time. What these newly emerging IoT applications have in common is essentially their unique requirements in terms of low latency, accuracy, temporariness, and interactivity. Meeting such requirements gives rise, however, to great challenges pertaining to scalability and resource availability that one must overcome to be able to unleash the power of such IoT devices, and thus enable these new IoT applications and services.

In this talk, we discuss the IoT potentials vis-à-vis of their ability to enable a new era of distributed Internet-scale applications, highlight the challenges that lie ahead of IoT to enable such applications, and present some potential solutions that can help overcome such challenges.