

Designing Smart Cities based on Internet of Things (IoT)

Overview

New Internet of Things (IoT) applications that leverage ubiquitous connectivity, big data and analytics are enabling Smart City initiatives all over the world. These new applications introduce tremendous new capabilities such as the ability to remotely monitor, manage and control devices, and to create new insights and actionable information from massive streams of real-time data. As a result, IoT offerings are transforming cities by improving infrastructure, creating more efficient and cost effective municipal services, enhancing public transportation, reducing traffic congestion, and keeping citizens safe and more engaged in the community.

Smart Cities Mission is an urban renewal and retrofitting program by the Government of India with a mission to develop 100 cities all over the country making them citizen friendly and sustainable. Smart Cities Mission focuses on waste management, sewerage treatment plants, smart class rooms, Wi-Fi, smart LED streetlights, city surveillance, traffic signalization project, etc., Such initiative needs several Smart City professional, Engineers and developers to augment in designing and developing IoT based Smart cities.

This course introduces the fundamentals of Internet of Things (IoT) and how one can implement for Smart Cities. The course covers infrastructure related architecture, technologies and principles behind IoT for designing an ideal Smart City. The course will also discuss about building blocks for Smart City and share few of the use cases as well as Smart City framework presented during Global City Team Challenge hosted by National Institute of Standards and Technology (NIST), USA.

Modules	Designing Smart Cities based on Internet of Things (IoT): 11th Dec to 15th Dec, 2017 Number of participants for the course will be limited to fifty.
You Should Attend If...	<ul style="list-style-type: none">▪ Executives, engineers and researchers from manufacturing, service and government organizations including R&D laboratories.▪ Students at all levels (B.Tech./ M.Tech./ MCA/ M.Sc./ Ph.D.) or Faculty & Technical staffs from reputed academic and technical institutions.
Fees	The participation fees for taking the course is as follows: Participants from abroad: US \$200 Non-students (i.e. faculty, academic, industry etc.): Rs. 2000/-. Students: Rs. 1000/- The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. Outstation participants will be provided shared accommodation on payment basis. The course participants will have to arrange/ borne the charges for their food, transport individually.

The Faculty



Dr. Tokunbo Ogunfunmi, Professor of Electrical Engineering, Director of the Signal Processing Research Lab (SPRL), School of Engineering at Santa Clara University (SCU), Santa Clara, CA, Visiting professor at the University of Texas and Stanford University.

Dr. Tokunbo Ogunfunmi's current research interests include IoT, digital signal processing, multimedia (speech, video) VLSI/DSP/FPGA implementations and machine learning/artificial neural networks. He has published 4 books and over 160 refereed journal and conference papers in these and related areas.

Dr. Ogunfunmi has been a consultant to industry and government, and in 2015, he was awarded the prestigious Carnegie Foundation Visiting Professorship. His industrial experience includes consulting for companies such as Broadcom, AMD, NEC, AT&T Bell Labs. and NIKON Precision Research & Development. He is also a registered professional engineer in the State of California.

He served as an IEEE Distinguished Lecturer for the Circuits and Systems Society from 2011--2013. He also served as a Senior Associate Editor for the IEEE Signal Processing Letters and an Associate Editor for IEEE Transactions on Circuits and Systems-I and II. Currently he serves on the editorial boards of the journal Circuits, Systems and Signal Processing and the journal Electronics Letters. He has also served the IEEE as Chair of the Circuits and Systems (CAS) Society Technical Committees on CAS for Communications and CAS for Education and Outreach. From 2007--2009, he was the Chair of the IEEE Signal Processing Society (SPS) Santa Clara Valley Chapter. He is also a member of other IEEE Technical Committees. He is Technical Program Co-chair of the 2019 IEEE International Symposium on Circuits and Systems (ISCAS).

He is a Senior Member of the Institution of Electrical and Electronic Engineers (IEEE), a Member of Sigma Xi (the Scientific Research Society), and Member of the American Association for the Advancement of Science (AAAS).

Course Co-ordinators

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