

Department of Engineering Science

Announces 3rd lecture of the Engineering Science Lecture Series Academic Year 2016-2017

This is a series designed to benefit the Sonoma State students and faculty in the School of Science and Technology, high tech and biotech industries and related businesses and community in the North Bay Region.

The Lecture Series covers a broad range of topics with focus on recent developments and trends and provides a platform for the exchange of ideas among the audience.

Attendance is open to the students, faculty and staff of SSU and other academic institutions, engineers and scientists from industries, members of the business community and members of the community, in general. A parking permit is required to park on campus, and is available for \$5.00 at machines in the parking lots. Talks are otherwise free.

Days & Dates: 1st & 3rd Thursday of every month

Venue: Cerent Engineering Science Complex, Salazar Hall Room #209A

Reception: 4:00 to 4:30 p.m.

Lecture: 4:30 to 5:15 p.m.

Q&A: 5:15 to 5:30 p.m.

Acknowledgement

The ES Lecture Series is sponsored by the Keysight Technologies Foundation under the SSU-Keysight Partnership Program.

“Internet of Things (IoT) based Environmental Monitoring Systems”

by

**Mr. Shivakumar Mathapathi, Co-
Founder and CTO, Dew Mobility, CA**

Thursday, October 6, 2016

Abstract – With recent development in Internet of Things (IoT), several environmental researchers, scientists, Government and Corporates initiated monitoring the environmental parameters. The system is made up of three layers such as sensor layer, Hardware layer and Cloud layer. It makes it possible to sense, acquire, process and transfer environmental information over a large area in real time. With today’s lecture, the goal is to demonstrate few of the environmental sensors such as temperature, humidity, air quality, CO2, light and pressure sensors interfacing with ARM Mbed microcontroller (MCU) and transferring into the Amazon Web IoT services. Once the Environmental information is available at the cloud, we could monitor the data on mobile phone as well on the desktop/Laptop computers. One could provide the data analytics to end users utilizing analytics tools offered by various Cloud providers such as IBM Bluemix, AWS IoT, Microsoft Azure, and GE-Predix. The lecture session helps attendees to learn these IoT technologies and services.

Mr. Shivakumar Mathapathi has over 25 years of experience in product development, design and faculty. Mr. Mathapathi is a seasoned technologist, entrepreneur, instructor and practitioner on the Internet of Things (IoT) with extensive experience as lead faculty, lab-practice and mentorship in executing smart city, smart



agriculture, assisted living and other IoT related projects. He has designed study programs and academic syllabus for “The IoT course” a 4-units Master of Science course taught at Santa Clara University and CA Polytechnic State University. He led the capstone design project at Cal Poly San Luis Obispo to design and develop IoT cloud platform. He is the Capstone Lecturer at MS Information System, Smart City project, Leavey School of Business, Santa Clara University, and served as lead instructor for IoT course at Cal Poly, San Luis Obispo.

Upcoming Lectures

2016	Title of the Lecture	Guest Speaker
Oct 20	Controlling Inverters with Advanced Grid Functions	Mr. Mark Baldassari, Director of Codes and standards, Enphase, Petaluma, CA
Nov 3	Image Comprehension on Mobile and Cloud Platforms	Prof. Soheil Ghiasi, Electrical and Computer Engineering, UC Davis, Davis CA
Nov 17	Humanitarian and Frugal Innovation	Prof. Silvia Figueira, EE Department. Santa Clara University, Santa Clara, CA