Department of Engineering Science

Announce 10th lecture of the Engineering Science Lecture Series
Academic Year 2015-2016

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.

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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.

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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 #2009A

**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.

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**Acknowledgement**

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

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**“Terahertz Interconnect, the Last Centimeter Communication”**

by

Prof. Jane Gu, Electrical and Computer Engineering, UC Davis

**Thursday March 10, 2016**

**Abstract** – Ever increasing chip-to-chip communication bandwidth requirement continuously exceeds the bandwidth capabilities supported by chip I/O pins. The gap between the interconnect requirement and the capability forms “Interconnect Gap”. This talk presents one potential scheme, THz interconnect, to address the “Interconnect Gap” challenge. THz Interconnect, leveraging its unique spectrum position, holds the potential to utilize the benefits of both electrical interconnect’s low cost, high scalability processes and optical interconnect’s low loss channels. Therefore, it is promising to boost all the three key metrics of interconnect: bandwidth density, energy efficiency, and low cost, to address the long-standing issue. This talk presents THz interconnect active, passive component design and system demonstration.

**Dr. Q. Jane Gu** received her Ph.D. degree from University of California, Los Angeles in 2007. After graduation, she has worked in the industry for a short period. From August 2010 to August 2012, she was an assistant professor at University of Florida. Since August 2012, she has joined University of California, Davis as an assistant professor. Her research interest includes high efficiency, low power interconnect, RF/mm-wave/THz integrated circuits and System on Chip (SoC) design techniques, as well as integrated THz systems for communication, radar and imaging. She is the co-recipient of 4 conference best paper awards. She is the recipient of 2013 NSF Career Award and 2015 College of Engineering Outstanding Junior Faculty Award.

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**Upcoming Lectures**

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