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.

**Acknowledgement**  
The ES Lecture Series is supported by the local industry including Keysight Technologies.

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**“Spectrum Sensing in Cognitive Radio Networks”**  
by  
Dr. Birsen Sirkeci-Mergen,  
Department of EE, San Jose State University  
Thursday, March 2, 2017

**Abstract** – Wireless communication is progressing at an accelerated speed. Increasing variety of applications and features of wireless devices is leading to demands for higher and higher data rates. However, the bandwidth licensed to radio communication is limited. The infamous question is “How do we get better data rates under limited bandwidth requirements to meet the demand?”. An emerging advanced solution for efficient spectrum utilization is a cognitive radio—a transceiver technology that is capable of, not only sensing the spectrum, but also, monitoring, detecting and adapting its communication. Past decade has seen an explosion of activity in understanding dynamic spectrum allocation in cognitive radio networks. In this talk, we will look at the design and performance of spectrum sensing strategies for cognitive radio networks.

Dr. Birsen Sirkeci is an associate professor in the department of Electrical Engineering at San Jose State University (SJSU), San Jose, CA. She received her Ph.D. from Cornell University, Ithaca, NY in 2006. Prior to joining SJSU, she was a postdoctoral researcher at UC Berkeley, CA. Her main research lies in the areas of wireless communications, sensor networks, statistical signal processing and statistical learning. She received best paper awards in Milcom 2015, WCECS 2010 and ICETEC 2013. She was elected as outstanding organizing committee member of IEEE ICME in 2013. She received the Applied Materials teaching award at SJSU in 2014. She also co-advised SJSU Spartans team which ranked among the finalist in Darpa Spectrum Challenge in 2013.

**Upcoming Lectures**

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