Announces 6th lecture of the Engineering Science Lecture Series Academic Year 2020-2021

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.

Days & Dates: 1st & 3rd Thursday of each month
Lecture: 4:00 to 5:00 p.m. including Q & A
Zoom ID: https://SonomaState.zoom.us/j/4739559175

Acknowledgement

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

“Probabilistic and Approximate Computational Models”

by

Prof. Bala Ravikumar, Chair, Dept. of Computer Science, SSU, Rohnert Park, CA

Thursday, November 19, 2020

Abstract - Everyone knows that modern digital computers are based on deterministic Boolean logic gates that are assumed to perform exact computation of logical operations such as AND, NOT etc. In this talk, we will explore two alternatives to this framework in which the demand on the output being correct on all inputs is relaxed. First, we will consider a state machine model as a way to approximate the solutions of some computational problems. The second one is a stochastic model of logic gates that provides an alternative hardware basis for building digital computers. Some applications of these models will also be presented.

Dr. Ravikumar received his Ph.D. in Computer Science from the University of Minnesota and has taught at many universities including University of Minnesota, University of Rhode Island, San Francisco State University and Sonoma State University. He has supervised many graduate and undergraduate projects. He is an editor of the International Journal of the Foundations of Computer Science and has served on the program committees of many international conferences. He has presented invited and contributed talks in more than fifty international conferences.

Upcoming Lectures

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