Good Morning,
You are invited to attend our weekly ECE Graduate Seminar.

Old Dominion University
College of Engineering and Technology
Department of Electrical and Computer Engineering

All lectures to be held at 3:00pm on Fridays online at
https://vs.prod.odu.edu/kvs/zoom/?cid=202120_ECE731831GraduateSeminarSpring2022VS_96353
For more information, contact Dr. Chung Hao Chen at (757) 683-3475 or email cxchen@odu.edu.

Friday, April 15, 2022 Seminar Topic:

"Runtime Energy Savings Based on Machine Learning Modeling" by Dr. Vaibhav Sundriyal, Research Scientist at Old Dominion University Research Foundation

Abstract:
To improve the power consumption of parallel applications at the runtime, modern processors provide frequency scaling and power limiting capabilities. In this work, a runtime strategy is proposed to maximize energy savings under a given performance degradation. Machine learning techniques were utilized to develop performance models which would provide accurate performance prediction with change in operating core/uncore frequency. Experiments, performed on a node (28 cores) of a modern computing platform showed significant energy savings of as much as 26% with performance degradation of as low as 5% under the proposed strategy compared with the execution in the unlimited power case.

Bio:
Vaibhav Sundriyal is working as a research scientist at ODURF. He received his PhD in Computer Engineering from Iowa State University in 2013 and worked briefly as a post-doc at ISU. His research interests lie in power aware computing, machine learning and deep learning.