

ECE DISTINGUISHED SPEAKER SERIES



Jelena Kovačević

Carnegie Mellon University

Host: Professor Matteo Rinaldi

**From biomedical
imaging to online blogs:
Graph signal processing**

Thursday, November 12

McLeod Suites, Rooms 320-322
Curry Student Center
10:00-11:00 am

Reception to follow

*Sponsored by the
Department of Electrical
and Computer Engineering*

I will present a path from classification in biomedical imaging to online blogs, where a common thread is graph signal processing, a theoretical framework that generalizes fundamental concepts of classical signal processing from regular domains, such as lines and rectangular lattices, to general graphs. It is particularly applicable to domains such as physical, engineering, and social, where signals are characterized by irregular structure. Signal processing on graphs has found multiple applications, including approximation, sampling, classification, inpainting and clustering, and I will describe some of these.

Jelena Kovačević received a Ph.D. degree from Columbia University. She then joined Bell Labs, followed by Carnegie Mellon University in 2003, where she is currently the Edward David Schramm Professor and Head of the Department of ECE, and Professor of BME. She received the Dowd Fellowship at CMU, Belgrade October Prize, and the E.I. Jury Award at Columbia University. She is a coauthor on an SP Society award-winning paper and is a coauthor of the textbooks Wavelets and Subband Coding and Foundations of Signal Processing. Dr. Kovačević is the Fellow of the IEEE and was the Editor-in-Chief of the IEEE Transactions on Image Processing. She was a keynote speaker at a number of meetings and has been involved in organizing numerous conferences. Her research interests include multiresolution techniques, graphs, biomedical imaging, and smart infrastructure.



Northeastern

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