

ELECTRICAL & COMPUTER ENGINEERING DISTINGUISHED SEMINAR

Monday, March 3, 2025 – 11:00 a.m.

Rama Chellappa

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Data Science and AI Institute, Departments of Electrical and Computer
Engineering (Whiting School of Engineering) and Biomedical Engineering
(School of Medicine)
Johns Hopkins University

ECE 530

Zoom link: https://arizona.zoom.us/i/86323180183

"Trustworthy AI Systems for Computer Vision and Medicine"



Abstract

Over the last decade, algorithms and systems based on deep learning and other data-driven methods have contributed to the reemergence of Artificial Intelligence-based systems with applications in national security, defense, medicine, intelligent transportation, and many other domains. However, AI systems are vulnerable to domain shift, adversarial attacks and often exhibit bias. In this talk, I will present our approach to bias mitigation and designing AI systems that are robust to domain shift and a variety of adversarial attacks with applications in computer vision and medicine.

Bio

Prof. Rama Chellappa is a Bloomberg Distinguished Professor Computer Vision and Artificial Intelligence in the Departments of Electrical and Computer Engineering (ECE) in the Whiting School of Engineering and Biomedical Engineering in the School of Medicine at Johns Hopkins University (JHU). At Hopkins, he is serving as an interim co-Director of the Data Science and Artificial Intelligence Institute. His research interests are artificial intelligence, computer vision, machine learning, medical imaging, and pattern recognition. Chellappa has received numerous awards from the International Association of Pattern Recognition (IAPR), IEEE, IEEE Biometrics Council, IEEE Computer Society, IEEE Signal Processing Society, Optica, UMD, and USC. He is a member of the National Academy of Engineering and a Foreign Fellow of the Indian National Academy of Engineering. He has been recognized as a Distinguished Alumni by the ECE department at Purdue University and the Indian Institute of Science. He is a Fellow of AAAI, AAAS, ACM, AIMBE, IAPR, IEEE, NAI, OSA, and the Washington Academy of Sciences and holds nine patents.