Seminar Announcement
"Dynamic Multi Agentic Systems"

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ABSTRACT
Agentic systems address the limitations of Large Multimodal Models (LMMs) in solving complex tasks by coordinating multiple agents that iteratively reason, invoke tools, and exchange intermediate results. This talk presents MedRoute, a dynamic multi-agent framework for medical diagnosis in which specialized LMM agents collaborate under the coordination of a general practitioner and a moderator to produce final decisions. To improve efficiency in parallel agentic systems, Learning to Share (LTS) is introduced as a shared-memory mechanism that enables selective reuse of intermediate computations across agent teams, reducing redundancy. Finally, the talk introduces Agent-X, a large-scale benchmark designed to evaluate vision-centric agentic systems through multimodal reasoning and real-world task performance.

Biography: Dr. Mubarak Shah is the Trustee Chair Professor and founding Director of the Center for Research in Computer Vision at the University of Central Florida (UCF). He is a Fellow of ACM, IEEE, AAAS, NAI, IAPR, AAIA, and SPIE. His research spans human activity recognition, visual tracking, geo-localization, crowd analysis, object detection, and related areas in computer vision. Dr. Shah has received numerous honors, including the 2022 PAMI Mark Everingham Prize for pioneering human action recognition datasets, the 2019 ACM SIGMM Technical Achievement Award, the 2020 ACM SIGMM Test of Time Honorable Mention Award, and the 2020 ICPR Best Scientific Paper Award. At UCF, he has received the Pegasus Professor Award, the University Distinguished Research Award, and multiple excellence awards in mentoring and research. He has also served as an ACM and IEEE Distinguished Visitor Program speaker.