



DEPARTMENT OF
COMPUTER SCIENCE

TEXAS TECH
Whitacre College of Engineering

AI-enabled Cyber-Physical Systems: Use Cases and Challenges

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3:30 p.m.

Zoom

Abstract: Cyber-Physical Systems face a wide range of challenges in sensing, decision-making, and actuation. This talk will introduce two ongoing projects — waste-to-energy processes and clinical performance enhancement — and explain how AI enables sensing and decision-making in these projects, respectively. It will also review AI's role in human-CPS cooperation in applications such as manufacturing, offering an integrated perspective on how machine agents assess and interact with humans.

Bio: Dr. Liang Cheng has served as PI or Co-PI on more than 20 research projects funded by a variety of sources, including DARPA, DOE, DOT, NSF, state agencies, and industry. His expertise spans AI/ML applications, CPS, cybersecurity, intelligent infrastructure, middleware, and networking. He is the Department Chair and Professor in the Department of Electrical Engineering and Computer Science, as well as Co-Acting Chair of the Department of Engineering Technology at the University of Toledo.

