DEPARTMENT OF COMPUTER SCIENCE

TEXAS TECH
Whitacre College of Engineering

Dancing with the Grid: Mitigating the Energy Costs ($, CO2) of the AI Explosion

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2:00 p.m.
ELECE 221
Zoom:
https://texastech.zoom.us/j/92750951143?pwd=XuVS939hyhHcNmpOWlclb7Q6DCseLx.1
Meeting ID: 927 5095 1143
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Abstract: In the US we expect to add 30GW of AI datacenters by 2030, doubling the energy consumed by data centers. Similar growth is expected in other regions. Simply meeting this growth is a challenge. If the additional generation is met with coal, oil, and even natural gas, the CO2 impact will be significant. In this talk I will describe the problem, and propose a plan for the HPC community to demonstrate to AI data center operators that carefully managing their load can reduce both monetary costs and carbon emissions.

Bio: Grimshaw received his Ph.D. in Computer Science from the University of Illinois in 1988 and joined the UVA Department of Computer Science. While at Virginia Grimshaw focused on the challenges of designing, building, and deploying solutions that meet user requirements on production supercomputing systems such as those operated by the United States Department of Defense, Department of Energy, the National Science Foundation, and NASA. Dr. Grimshaw left the University of Virginia in 2019 to join Lancium and participate in their transformative mission to change how and where computing is done while decarbonizing the electrical grid. Dr. Grimshaw is now fully retired, and spending his retirement flying gliders, hiking, and advocating for the use of renewable power for massive (AI) data centers.