

ECE – 590 I

POWER & ENERGY SYSTEMS SEMINAR

Monday, November 11, 2024, ECEB 4070, 3:00 – 3:50 p.m.

NetCon: A C++ Framework for Distributed Consensus Algorithms in Power Systems

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Abstract:

Distributed power generation can benefit from distributed controls. A pair of useful algorithms, ratio consensus and max-min consensus, can be used as primitives to enable controls such as secondary voltage and frequency control, optimal power flow, and economic dispatch. In this talk, I will discuss how these primitives work, an example application, and then dive into the C++ framework I have developed to realize these algorithms in a useful fashion. This will include overall design, language features used, third party libraries, build tools, testing, and deployment.