





Nuclear Cybersecurity Research

Suibel Schuppner
Office of Nuclear Energy, U.S. Department of Energy,
August 6, 2019

NE Cybersecurity R&D

Objectives

- strengthen security through reduction of vulnerabilities
- mitigate the consequences of threats
- lower the costs of protection and compliance
- provide a collaborative pathway for industry and researchers

Fields of Interest

- Modeling & Simulation
- Information Sharing/Training/Education



NUCLEAR ENERGY-CYBERSECURITY RESEARCH TOPICS AND METRICS ANALYSES (NE-1)

<u>Challenge</u>: addresses characteristics and behaviors of components within embedded instrumentation and control (I&C) systems that are used within the <u>nuclear</u> enterprise through modeling and simulation

Objectives:

- 1. Simulate characteristics of an I&C system under cyber attack;
- 2. Study the cyber risk impacts of upgrades and maintenance on such systems;
- 3. Enable future nuclear energy cyber security research, and
- 4. Facilitate nuclear facility operation education and training.

Contact Information

- Federal Program Manager Suibel Schuppner suibel.schuppner@nuclear.energy.gov
- Technical Lead for Cybersecurity NEUP Steve Hartenstein steven.hartenstein@inl.gov

