Engineering Analysis
Task Team

Evangelos Farantatos (EPRI) – Co-Lead
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NASPI Virtual Meeting
April 13, 2022
New Mission Statement

1. **Proliferate** the development, testing, and validation of engineering applications that use synchronized measurements systems.

2. Assist in the deployment and utilization of synchronized wide-area measurement applications.

3. Formulate and guide recommended R&D activities related to the advancement of wide-area synchronized measurement systems and their applications.
Advanced Model Validation & Calibration

- EATT White Paper
- Lead: Honggang Wang (GE)

Objective: Document industry advancements in model validation and calibration
• Chapter 1
  • Section 1.2 to be completed

• Chapter 2
  • Completed section 2.2
    • Neeraj Nayak (EPG)
    • Mani Venkatasubramanian (WSU)
    • Urmila Agrawal & Pavel Etingov (PNNL)

• Chapter 3
  • Completed section 3.1
    • Junbo Zhao (UConn)
    • Junjian Qi (Stevens Inst. Tech)
    • Honggang Wang (GE)
  • Completed section 3.2
    • Renke Huang (PNNL)
    • Junjian Qi (Stevens Inst. Tech)
  • Section 3.3 to be completed
    • Honggang Wang (GE)
• Chapter 4
  • Completed section 4.1
    • Honggang Wang (GE)
  • Section 4.2 to be completed
    • Kaveri Mahapatra (PNNL)
  • Section 4.3 to be completed
    • Kaveri Mahapatra (PNNL)
  • Completed section 4.4
    • Honggang Wang (GE)

Target completion by October 2022
EATT Edge Computing Database

• Create a living document/database for industry on education and real-world applications of Edge Computing applications

• Provide expert knowledge of edge computing common applications based on a foundational definition:
  • Edge computing is computing that is done at or near the source of the data excluding cloud or remote data center computing.
  • Examples
    • Computations on the PMU directly
    • Computations on a substation synchrophasor device/server or on a field device

• Approach
  • Industry survey to collect real-world examples
    • Vendors – Commercially available or in development
    • Research institutions – What is being researched
    • Utilities – What is currently in use (proprietary systems for sharing of information only)
  • Development of edge computing knowledge including:
    • Types of edge computing
    • Hardware, software and network needs