

# AT A GLANCE

INFORMATION  
AND TELECOMMUNICATION  
TECHNOLOGY

ICT



## Information and Communication Technology (ICT)

### Program 161

#### Research Value

- Interoperability – Accelerate industry’s migration toward interoperable protocols, standards, and architectures and challenges of proprietary solutions.
- Data-Centricity – Leading efforts towards enterprise-wide extensible data models to facilitate data sharing among devices, systems, and stakeholders.
- Telecommunications – Advancing ubiquitous, standardized resilient networks to enable secure data exchanges for the grid of the future.
- Strategy – Measuring and quantifying the benefits of scalable, standardized ICT approaches and architectures with tools, resources, and guidance to develop and apply an actionable roadmap.

#### Member Benefits

- Cutting Edge Updates on Emerging Information & Communication Technologies and how they may impact utilities – AI, Geospatial information, AR/VR, Edge Computing, IT/OT Convergence, Cloud, 5G/6G, Emerging Standards and Protocols.
- Annual Reference Guidebooks – Providing tools, strategies and references related DER Protocols, Enterprise Architecture, Advanced Metering, Telecommunications, and Geospatial Informatics
- Thought Leadership Insights – Strategies, Roadmap tools, Business Capability Models, Impacts of Disruptive Technology
- Case Studies – Learning from Actual Deployments

This program addresses technical and economic challenges of identifying, evaluating, and implementing enabling Information and Communication Technologies (ICT) for grid modernization and digital transformation efforts.

- Tools and resources to enable adoption of emerging ICT including the development of strategies to prioritize IT/OT Investments.
- Emerging and potentially disruptive technologies insights to inform decision makers of potential impacts and opportunities.
- Technology and standards evaluation, laboratory testing, and field demonstrations, interpreting results into opportunities and challenges to achieve interoperable, scalable, cost-effective solutions and maximizing the sharing.
- Industry case studies, best practices, and guidebook development. Experiences are captured through utility immersions, interviews, and case studies.
- Technology transfer with a variety of approaches to share and apply research results, including technical reports, white papers, software tools, webcasts, workshops, and application of ICT program resources directly for utilities.

## Research Highlights



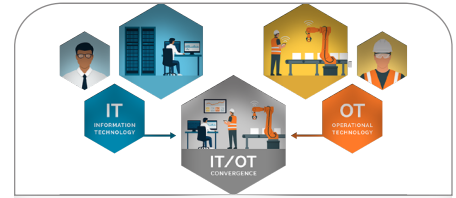
### Emerging Technologies & Technology Transfer (161A)

- Delivers strategic insights into emerging information and communication technologies.
- Develops white papers that investigate and analyze emerging ICT issues that could enable innovation, future-proofing, efficiencies, cost savings, and a better customer experience.



### DER Data & Connectivity (161D)

- Research about interoperability and interchangeability standards that help you integrate with increasingly diverse sets of DERs.
- Assess the continuously flowing pipeline of new data and connectivity solutions for DERs.
- Best practices and peer perspectives to help utilities support investments in the ICT technologies needed to support DER integration.



### Enterprise Architecture (EA) & Integration (161E)

- Increases the maturity, influence, and impact of EA practitioners at utilities.
- Pursues semantics of data and of available standards-based data exchange standards as a key to enable innovative applications.
- Provides Architects and strategic planners with frameworks, tools, and processes to align current and future strategic objectives.



### Advanced Metering Systems (161F)

- Assists utilities in designing, selecting, integrating, and deploying AMI systems based on standards, to reduce lifetime costs and improve performance.
- Provides insights into all aspects of AMI systems operation and management life cycles.
- Optimizes the use and value of AMI and the full range of applications that can be supported.



### Telecommunications (161G)

- Identify and mitigate interference to 6-GHz systems.
- Identify, analyze, and quantify business cases for fiber and broadband service opportunities.
- Understand standards-based FAN technologies – Private LTE, 5G, and IoT networks, and their configuration and optimization for utility purposes.
- Develop insights for utility telecom network management.
- Engagement in Telecom Standards development.



### Geospatial Informatics (161H)

- Optimizing geospatial data performance for electric utilities.
- Provides insights into innovative geospatial applications electric utilities can leverage to optimize the value of their geospatial investments.
- Develops innovative geospatial analysis techniques to support multiple utility business processes.

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