INFORMATION, COMMUNICATION & CYBER SECURITY NEWSLETTER

Dear EPRI ICCS Members and Stakeholders,

Unfortunately, I'm starting this month's newsletter on a somber note. Erich Gunther, an original member of the team that developed EPRI's IntelliGrid Architecture, passed away unexpectedly on June 18. He was a friend and well respected colleague to many of us in the electric utility industry and will be greatly missed. Please keep his family in your thoughts and prayers.

On a positive note, I would like to congratulate our very own Mark McGranaghan, VP of Distribution & Utilization, for being an awardee of the 2016 CIGRÉ Distinguished Member Award. Mark is in some very good company and his continued industry engagement is an inspiration to us all.

Are you thinking about your 2017 strategic goals? We are! The 2017 EPRI Research Portfolios are now available at the following links: Program 161 - Information and Communication Technology Research Projects and Supplemental Projects; Program 183 – Cyber Security and Privacy Research Projects and Supplemental Projects .

Also, please remember the 2016 **Tech Transfer Award** Nominations are due by July 31 (yes, that is THIS SUNDAY! These awards recognize individuals or groups of individuals from member companies who have championed the successful use of EPRI-sponsored research results over the 2015 – 2016 time-period. Follow this link to submit a nomination.

Sincerely,

Matt Wakefield
Director, Information, Communication and Cyber Security Research

2016
In this Newsletter
ICT Program (161)
Cyber Security Program (183)
Data Analytics (DMD & TMD)
Upcoming Events

ICT Team Industry Contributions and Collaborations

What can Utilities Learn About Using Augmented Reality from Pokémon GO?

John J. Simmins, Ph.D., Technical Executive

It's all over the news; Niantic's mobile version of Nintendo's iconic Pokémon game, Pokémon GO, is using augmented reality (AR) to become this month's headliner in pop culture. In the game, players hunt and trap AR Pokémon for use later in fights in virtual "gyms." These and other goals drive players to explore real places in the real world and engage face-to-face with other people. Sounds like fun, right? Read the full article in Energy Central.

Utility Telecommunications – Is Your Strategy Preparing You for an Integrated Grid?
CIO Review Magazine, Matt Wakefield, Director, EPRI
There is a proliferation of function-specific telecommunications networks deployed to support substation communications, smart meters, Mobile Workforce applications, Customer Engagement programs, advanced sensors for the transmission grid, and the list goes on. This article provides a perspective on the importance of utility telecommunications infrastructure for the future of an Integrated Grid. Read the full article in CIO Review Magazine.

ICT / IntelliGrid (161) & Related Demonstration Deliverables

Smart Grid Communications Intelligencer: Issue 15, Spring/Summer 2016
Smart Grid Communications ("Comms") Intelligencer is a tri-annual newsletter published by EPRI's Information and Communications Technology (ICT) Program. This newsletter highlights issues of relevance and interest to utility communications engineers and managers. The focus is on developments in communication technologies and standards, and business issues that can affect the design, deployment, or operation of utility communications infrastructure.

Meeting Materials Available

ICT Tech Transfer: CEA-2045 Project Summary – Webcast 21-July-2016

ICT for Distribution Project Set 161C – Webcast 23 June-2016

ICT Telecommunication Initiative Webcast – Webcast 22-June-2016

ICT for Distributed Energy Resources Project Set 161D – Webcast 16-June-2016

Architecting the Modern Grid – Webcast 7-June-2016

ICT Enterprise Architecture and Systems Integration Project Set 161E – Webcast 23-May-2016

Cyber Security Risk Management

Smart grid technologies are introducing millions of new intelligent components to the electric grid that communicate in much more advanced ways (two-way communication, dynamic optimization, and wired and wireless communications) than in the past. Cyber security is important because the bi-directional flow of two-way communication and the control capabilities in the smart grid will enable an array of new functionalities and applications. To address the cyber security challenges in this new environment, utilities need to develop an overall cyber security strategy and a risk management process.

Do you have a cyber security strategy or risk management process for control systems? Following are the steps and EPRI deliverables that may be used to support your activities.

1. Start at the top and develop/tailor a cyber security strategy for the OT environment:
   Cyber Security Strategy Guidance for the Electric Sector
   EPRI Technical Update 1025672.
2. Next, develop/tailor a risk management strategy:
   Risk Management in Practice: A Guide for the Electric Sector
   EPRI Technical Update 3002003333.
3. Then define/tailor a risk assessment strategy:
   Integrating Electricity Subsector Failure Scenarios into a Risk Assessment Methodology
   EPRI Technical Update 3002001181.
4. Finally, select security controls for systems:
   Security Posture using the Electricity Subsector Cybersecurity Capability Maturity Model (ES-C2M2)
   EPRI Technical Update 3002003332

Risk management and other EPRI Cyber Security deliverables are listed in Cyber Security Deliverables, EPRI Technical Update 3002009060.

Meeting Materials Available

DNP3 Secure Authentication Evolution DNP Tech Bulletin TB2016-002 – Webcast 22-June-2016

CEA-2045 Program Demonstration Deliverables

2016 First Quarter CEA-2045 Field Demonstration Project Update
This report provides an update on project activities through the first quarter of 2016.

DMD/TMD Program Demonstration Deliverables

Data Analytics in the Call Center
Technology is available today to help utilities become proficient in customer engagement. In this work, we examine the potential for data analytics to transform the utility call center from a traditionally reactive service to a proactive business and information center. Tying together data from caller identification, call history, billing systems, outage-management systems, and other information sources can allow utility call centers to predict the reason for a customer call, instantly provide the caller with the desired information, and seize a valuable marketing opportunity.

Situational Awareness – Opportunities for the Electric Power Industry
Utilities face a unique challenge in that the delivery of electric power encompasses a diverse and complex system that is geographically dispersed. Meanwhile, new smart grid sensors are enabling unprecedented opportunities for greater system awareness. Utilities can seize those opportunities through leadership forged in other industries such as financial, aviation, military, and the government.

Upcoming Events	Dates
Power Delivery & Utilization Program Advisory & Sector Council Meetings, The Diplomat Hotel, Hollywood, FL	19-22-Sept-2016
2016 Modular Communication Interface Summit, Portland General Electric, Portland, OR *This meeting is designed to provide an opportunity for industry stakeholders to discuss and learn about challenges and solutions to advance a more intelligent, customer-friendly grid through emerging standards and advanced technologies.*	5-Oct-2016
Advanced Metering Infrastructure Summit, EPRI Charlotte *The Advanced Metering Infrastructure (AMI) Summit will bring together AMI industry participants, including utilities and manufacturers, to discuss common interests and how to work together to coordinate the evolution of*	18-Oct-2016

AMI. Topics will include the current and future state of AMI, interoperability, communications protocols, and how to discover the full value of AMI-collected data.

SAVE-THE-DATE: DMD/TMD Fall Advisory meeting, hosted by AEP, Columbus, OH.	19-20 Oct-2016

Together...Shaping the Future of Electricity