EnergyTech2015

EnergyTech is growing as a major annual impactful event focused on Energy and Critical Infrastructure. Initiated in 2009 as a regional conference by the newly formed INCOSE chapter of N. Ohio, and accelerated by IEEE and CWRU in 2011, EnergyTech has further evolved to national status through support and cooperation of NASA, INCOSE, IEEE and InfraGard/FBI, along with corporate sponsors and collaborating entities.

This forum is committed to the principle that complex systems such as the nations electrical grid and energy sector need comprehensive understanding and disciplined methodology to address the life-cycle challenges and pursue vital improvements to manage risk.

Contact us to discuss ways in which your organization could engage and benefit as a sponsor for this annual event.

Purpose & Goals

EnergyTech is more than a periodic technical conference – *it is a movement to advance modern systems engineering*, aimed at significantly enhancing the security and technology of our energy systems and vital infrastructure. Each annual EnergyTech forum is a benchmark for evolving new information, products and tools. The culmination of each track is a working session to engage participants, concluded by a workshop that will yield an organized portfolio of knowledge and products to share with its stakeholders.

Conference Team

Dr. Charles Alexander, co-Chair, IEEE, Washkewicz School of Engineering at Cleveland State University

Raymond Beach, co-Chair, NASA GRC

Carl Dister, Reliability First

Dr. Mike Heil, AIAA. Ohio Aerospace Institute

Dr. John Hoag, IEEE, Case Western Reserve University, and Ohio University

Dr. Allen Morinec, First Energy, IEEE

Anand Natarajan, City of Cleveland

Ben Rosolowski, Power & Energy Society, IEEE

Jack Stein, INCOSE

Helen Schneider, Telepath Systems, Inc

John Juhasz – INCOSE, EMP-SIG (Telepath Systems & Conference chair)

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ENERGYTECH16

Cleveland, Ohio
Oct. 31 – Nov. 2

A Premier Forum advocating Systems Solutions for Energy & Infrastructure

INCOSE International Council on Systems Engineering

NASA

CITY OF CLEVELAND OHIO

IEEE PES Power & Energy Society®

IEEE SMARTGRID

RF RELIABILITY FIRST

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CLEVELAND STATE UNIVERSITY 1964

INFRAGARD

www.energytech2016.com

Call for Papers

Open April 15 - July 30
www.energytech2016.com

Track Chairs

ENERGYTECH16

Track One

Matthew Hause
Mark Walker

Model Based Engineering of Complex Systems

The emergence of applied modeling science and methodology, supported by advanced tools for capturing System Architecture and behavior under various scenarios provides a major opportunity for decision makers to address management and updates to the complex electrical grid and its subsystems.
This track will provide deep insight into the life-cycle methodologies evolved by INCOSE and other organizations for comprehensive systems understanding and effective life-cycle decision support of the complex energy sector through the use of sophisticated models.

Track Two

Raymond Beach
Dr Maria Ilic

Power Systems: Smart Grid / Autonomous / Intelligent Control

Terrestrial, aircraft, and spacecraft power systems are under pressure to provide enhanced capabilities such as incorporation of renewable generation and energy storage, distributed turbo-electric and hybrid electric propulsion, and modular and autonomous power system operation. Distributed electric propulsion for aircraft employing multi-terrestrial smart grids.
This track explores the common challenges and technology developments needed to allow deployment of advanced power systems and identification of their expected end state.

Track Three

John Juhasz
Steven Pappas

Examining Risk Factors in Energy Systems

Major threat scenarios such as relentless daily cyber assaults on our grid are threats that confront not only the energy sector but all critical infrastructure, with the potential to greatly disrupt and undermine civilized existence. We need to effectively leverage and integrate advanced technologies into critical infrastructure, as well as address challenges and vulnerabilities in cyber-security, physical attacks, solar weather and EMP events. Solutions demand the very best in human ingenuity coupled with methods to managing system risk and life-cycle decision support. This track provides key opportunities to explore the spectrum of threats and applied systems engineering and risk management in Energy and Infrastructure.

Track Four

Dr Allen Morinec
Dr Joseph Beno

Advanced Technology in Power & Energy

Utilization of renewable and distributed energy sources deployed within the utility power system and at the grid edge, as well as energy storage and dc power are all disruptive technologies requiring changes in our understanding of the electrical power utility. These disruptive technologies have strong synergy with existing space power systems that employ renewable and distributed power generation as well as energy storage.
This track will explore potential disruptive technologies in power generation and distribution and the challenges to incorporation and enabling exploitation of these technologies.

Track Five

Carl Dister
Anand Natarajan

Energy, Environment & Policy

The need for a clean environment and a carbon-constrained world vs the demands for increasing energy to supply our modern factories, commercial enterprises, and residences creates an increasing pressure on policy makers to find reasonable and feasible pathways of accommodation.
This track explores the compelling need to apply a comprehensive "Systems" approach for addressing existing energy sources and renewables in manner that focuses on the critical metrics for all stakeholders, and seeks the best overall solution for society.

Track Six

Dr Charles Alexander
Dr John Hoag

Academic Papers & Posters

Call for Papers for the Academic track on all topics as listed in the Track 1-5 topics.
Submitted papers that may not meet acceptance criteria, or exceed conference capacity may be eligible for "poster session" status.

Each of the 5 defined industry tracks will run concurrently over a 2-day period, comprising 8 sessions of 90 minutes each. One session each day will include a special interactive "workshop" for participation by all attendees, facilitated by a Subject Matter Expert and guided to yield intended product outcomes for distribution.