IEEE

IEEE ISSE

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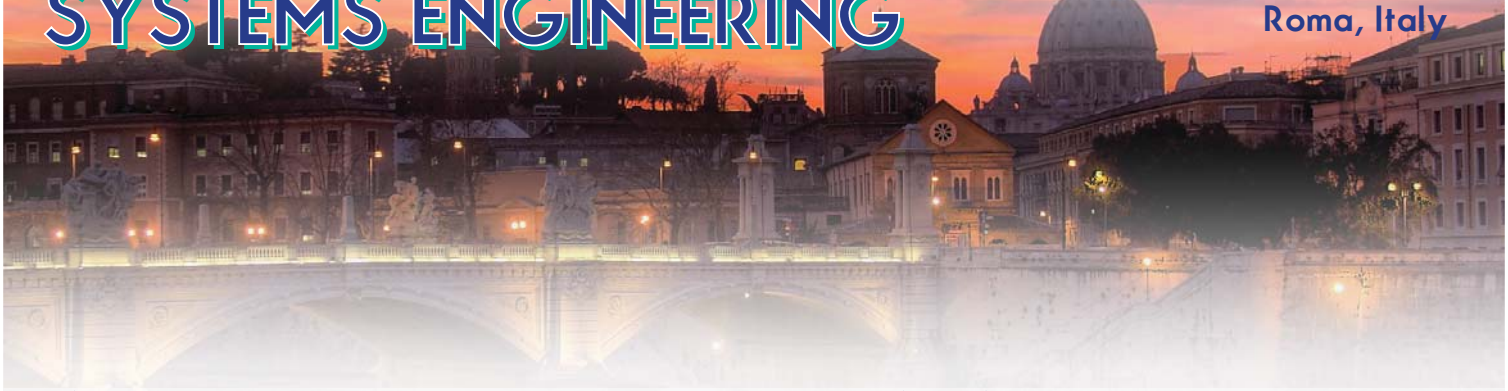
FIRST IEEE INTERNATIONAL SYMPOSIUM ON

SYSTEMS ENGINEERING

September 28 - 30, 2015
Rome Marriott Park Hotel
Roma, Italy



BACKGROUND

The IEEE Systems Council facilitates interactions among communities of interest on system-level problems and applications. System-level thinking is essential in the world today, not only for technical systems but also for society at large. The Council addresses the discipline of systems engineering, including the issues of complexities of system-level and system-of-systems applications, focusing on the total systems effectiveness of complex integrated systems of national and global significance.

SYMPOSIUM OBJECTIVE

This symposium seeks to create an interactive forum for the advancement of the practice of systems engineering across the multiple disciplines and specialty areas associated with the engineering of complex systems. The symposium will provide a venue for systems engineering practitioners, managers, researchers, and educators to exchange innovative concepts, ideas, applications and lessons learned addressing:

- Applications-oriented topics on large-scale systems and systems-of-systems in topics noted below.
- Systems engineering, education, standards, processes and methodologies for the system-of-systems environment
- Research opportunities and results relating to systems-of-systems

IMPORTANT DATES

Abstract Deadline: **May 22, 2015**
Acceptance Notification: **July 1, 2015**
Final Paper Deadline: **August 15, 2015**

TOPICS AREA

- System Architecture and Architectural Frameworks
- Engineering Systems-of-Systems
- Risk Management of Complex Systems Environment
- Systems Reliability
- Engineering Processes for Complex Systems - Includes Process Improvement and Quality Management
- Product Lifecycle Management Processes and Tools for System-of-Systems - Includes Configuration Management (CM), Requirements management, Data Management Strategy (CMS) and Integrated Logistics Support
- Service Oriented Architectures
- Cyber Security Issues and Approaches for Complex Systems
- Enterprise Systems Engineering
- Agile Development Methods of System-of-Systems
- Modeling and Simulation
- Model-Based Systems Engineering
- Systems Verification and Validation
- Systems Engineering Competency, Education and Training
- Program/Project Management for Complex Systems
- "Systems thinking" Benefits
- Technology Transfer Between Academia and Industry
- Societal and Political Impacts of Systems and Systems Design
- Diagnostics, Prognostics, and Enterprise Health Management
- Research in Systems Engineering
- Software Systems Engineering
- System-level design
- HW/SW co-design
- Virtual prototyping
- Systems considerations about:
  - o Autonomous Systems
  - o Energy Management and Sustainability, including Renewable Energy
  - o Space and Communications Systems
  - o Medical Systems
  - o Gaming and Entertainment Systems
  - o Transportation Systems
  - o Sensors Integration and Application for a Net-centric Environment
  - o Disaster response
  - o Global Earth Observation
  - o Large-Scale Systems Integration (in any application area)

The symposium caters to both practitioners and academics. For this purpose, the format of the submissions is divided in two categories with different submission requirements.

For **practitioners**, we invite authors to submit a descriptive abstract of at least 200 words in length. The descriptive abstract should summarize the scope of the paper and the primary results and findings, emphasizing new advances, theories and/or applications so that the program committee will be able to understand the originality and the value of the work. The abstract for practitioners must include a descriptive outline of the proposed paper.

For **academic** submissions, we invite authors to submit extended abstracts which should be at least four pages in length or the full paper. The abstract/paper should include an introduction, background and theory, a discussion of the validation and results, and a literature survey.

Papers and abstracts should be submitted electronically to the EDAS Website at **www.edas.info/N19129**. Please submit to **IEEE ISSE 2015**. To simplify abstract slotting to Tracks, authors will be limited to selecting one Topic area only from the listing on page 1 of this CFP. If the abstract does not fit any of the topic areas listed, there will be an "other" option. For comprehensive information, please reference the symposium web site at: **http://ieeeisse.org**

We also invite proposals for **sessions on special topics**. Author should suggest the topic details, length of session (in 1.5-hr increments) and the session structure (i.e. panel, or invited papers). Author must be willing to help populate the special session.

We also invite proposals for **workshops** and **tutorials**. Proposals for workshops and tutorials must be submitted with an abstract describing the material that will be covered during the time as well as the expected learning or abilities that will be developed in the participants and the method of delivery (lecture, discussions, forums, hands-on,...), (in 3-hr increments – half day).

SYMPOSIUM CHAIRS

Bob Rassa
Raytheon Company, USA

Paolo Carbone
University of Perugia, Italy

TECHNICAL PROGRAM CHAIR

Paolo Carbone
University of Perugia, Italy

ABOUT THE IEEE SYSTEMS COUNCIL

The IEEE Systems Council is one of the newest Technical Activities Board organizations and was formed in June 2005.

This IEEE Systems Council integrates IEEE activities regarding aspects of multiple disciplines and specialty areas associated with the engineering of systems. This Council covers, but is not limited to the following:

- Systems engineering, education, standards, processes and methodologies
- Modeling, simulation and integration related to design, testing, production and support
- Design aspects for robust design, human factors, safety, security and usability
- Transition of products from design to production, deployment and use
- Quality control and system management
- Program/product/project management interactions
- Risk Management
- Systems Architecture

MEMBER SOCIETIES OF THE COUNCIL ARE:

* Aerospace & Electronic Systems (AES)
* Systems, Man & Cybernetics (SMC)
* Instrumentation & Measurement (IMS)
* Circuits And Systems (CAS)
* Microwave Theory & Techniques (MTT)
* Communications Society (ComSoc)
* Oceanic Engineering (OES)
* Computational Intelligence (CIS)
* Product Safety Engineering (PSES)
* Power Electronics (PELS)
* Control Systems (CSS)
* Robotics & Automation (RAS)