9th Annual IEEE International Systems Conference

April 13-16, 2015
Marriott Pinnacle Vancouver Hotel
Vancouver, British Columbia, Canada

CALL FOR PAPERS

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 theory, technology, methodology, and applications of complex systems, system-of-systems, and integrated systems of national and global significance.

Conference Objectives

This conference 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 conference 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 system-of-systems in topics noted below
- Systems engineering, education, standards, processes and methodologies for complex systems and system-of-systems
- Research opportunities and results relating to complex systems and system-of-systems

Topic areas for consideration include:

- System Architecture
- Engineering Systems-of-Systems
- Complex Systems Issues
- Cyber Security Issues
- Modeling and Simulation
- Systems Engineering Theory
- Research in Systems Engineering
- Model-Based Systems Engineering
- Systems Verification and Validation
- Decision Making Systems
- Autonomous Systems
- Sensors Integration and Applications
- Large-Scale Systems Integration

Application areas to include, but are not limited to:

- Space and Communication Systems
- Medical Systems
- Defense Systems
- Gaming and Entertainment Systems
- Transportation Systems
- Environmental Systems
- Energy Management and Sustainability, including Renewable Energy

Important Dates:

EXTENDED Initial Manuscript Deadline: November 21, 2014
Acceptance Notification: December 22, 2014
Final Paper Deadline: February 15, 2015

The conference caters to both practitioners and academics, providing a forum to exchange ideas and experiences on technology, methodology, applications, study cases, and practical experiences. For this purpose, the format of the submissions is divided in two categories, with different submission requirements.

• **"Case studies and practical experiences in the Industry"**: these are short papers presenting practical ideas, real cases, and practical achievements. For this category, authors should submit an extended abstract of at least 500 words total, divided in the following sections:

  1. *Abstract*- a summary stating the novel contribution. This section should be around 200 words in length.
  2. *Motivation*- the background of the work. References to the literature should be added in order to clarify the importance of the problem and the reasons for doing the work. This section should be around 200 words in length.
  3. *Results*- sample results that substantiate the suggested approach. Figures, including preliminary (existing) results and/or proposed architectures should be added. Avoid stating only expected results. A brief discussion of the figures is required.

The final manuscript of papers accepted in this category will be 8 pages maximum.

• **"Research and application papers"**: these are long manuscripts addressing novel ideas, theoretical issues, technology, methodology, and applications. For this category, authors should submit either the full manuscript (up to 8 pages in length), or, alternatively, an extended abstract of at least four (4) pages. A clear statement of contribution is required. The papers should also include an introduction, background, theory, results, and validation.

Papers of both categories should be submitted electronically to the EDAS IEEE SysCon 2015 Submission Portal at www.edas.info/N18125. To simplify paper slotting to Tracks, authors will be limited to selecting one Topic area only from the listing above. If the paper does not fit any of the topic areas, there will be an "other" option. For comprehensive information, please reference the conference web site at: http://ieeesyscon.org.

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

Proposals for workshops and tutorials are also solicited. Such proposals must be submitted with an abstract describing the material that will be covered during the time, as well as the expected learning outcomes and the method of delivery (lecture, discussions, forums, hands-on, etc.), in 3-hr increments (half day).

Conference Chair
Bob Rassa, Raytheon Company,
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Technical Program Chair
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About the IEEE Systems Council:
The IEEE Systems Council is one of the newest Technical Activities Board organizations and was formed in June 2005. The Field of Interest for the Council follows:
This 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 (ComSoc)
Engineering and Medical Biology Society
Oceanic Engineering (OES)
Computational Intelligence (CIS)
Product Safety Engineering (PSES)
Power Electronics (PELS)
Control Systems (CSS)
Robotics & Automation (RAS)