



Final IEEE Systems Council

VP Technical Operations
Status; Sep 21, 2010

ieeesystemscouncil.org

Technical Committees

- ▶ Standards Technical Committee
 - **Chair:** Paul Croll, Computer Society
 - **No Report provided**

Technical Committees

- ▶ Systems Engineering Education Committee
 - **Chair:** John Baras, Control Systems Society
 - **No Report Provided**

Technical Committees

- ▶ Large Scale Systems Integration Technical Committee:
 - **Chair:** Barry Greenberg, Aerospace Engineering Society
 - *Barry requested for position be filled with someone who has the time to properly devote to the committee*

Technical Committees

- ▶ **SYSC TC - Monitoring Critical Infrastructures**
 - *The TC will study all aspects related to plan, design, develop, install, configure, calibrate, operate, maintain, and manage monitoring systems for critical infrastructures. The topics addressed concern - in particular - sensing, measurements, signal processing, image processing, monitoring, control, user interface, data mining, knowledge extraction and management, configuring, fault detection and diagnosis, fault accommodation, training, and management.*
 - *Some typical applications envisioned are: electrical power networks, water distribution networks, gas/oil pipelines, wastewater systems, ground and air transportation systems.*
- ▶ **Chair:** Marios Polycarpou, University of Cyprus

Technical Committees

▶ SYSC TC - Monitoring Critical Infrastructures

▶ Status Report

- **The following activities has been performed:**

- Web site of TC-MCI: Design is in progress
- Committee members identification
 - Working in identifying committee members
 - List will be ready shortly
 - It will include experts from all SYSC members societies and from all over the world

Technical Committees

New Approved

- ▶ **"Security and Privacy in Complex Information Systems"**
 - The TC will study all aspects related to ensuring security, privacy, and availability in complex distributed information systems and systems-of-systems, both from the theoretical and practical points of view. The studies will concern planning, designing, developing, installing, configuring, operating, maintaining, and managing security and privacy techniques and technologies for such scenarios
- ▶ Chair: Pierangela Samarati, University of Milan, Italy

Technical Committees

New Approved

- ▶ **"Security and Privacy in Complex Information Systems"**
 - **Status Report**
 - The following activities has been performed:
 - Web site of TC-SPCIS is ready:
<http://ewh.ieee.org/cmte/tc-spcis>
 - Identification of committee members
 - Working in identifying committee members
 - List will be ready shortly
 - It will include experts from all SYSC members societies and from all over the world

Technical Committees

New Approved

- ▶ **"Security and Privacy in Complex Information Systems"**
 - **Status Report..continues**
 - **Special issues:**
 - A proposal for a special issue on "Security and Privacy in Complex Systems" has been submitted to the EiC of the IEEE Systems Journal; the proposal is under discussion in the Editorial Board

Technical Committees

New Approved

- ▶ **"Security and Privacy in Complex Information Systems"**
 - **Status Report..continues**
 - Special sessions at conferences: the proposal for the special session on "Biometrics Privacy: Technology and Applications" has been accepted at the 2011 IEEE International Systems Conference, April 4-11, 2011, Montreal, Quebec, Canada; organizers: Mauro Barni, University of Siena, Italy; Vincenzo Piuri, University of Milan, Italy; paper submission is in progress

Technical Committees

New Approved

- ▶ **"Security and Privacy in Complex Information Systems"**
 - **Status Report..continues**
 - **Distinguished lecturers:** two proposals for distinguished lecturers has been submitted: Pierangela Samarati ("Privacy and Data Protection in Emerging Scenarios"), and Vincenzo Piuri ("Biometric Systems: Effectiveness vs. Privacy"); evaluation for possible approval is in progress.
 - **Workshops and Conferences:** two co-sponsorship or technical co-sponsorships of workshops and conferences are under discussion with the main sponsors.

Distinguished Lectures

▶ 2009

- Established Distinguished Lecturer (DL)

▶ 2010

- AESS has provided significant support in assisting SC and we are currently populating the DL program with the assistance of our member society representatives

Distinguished Lectures

▶ Joint DLs

◦ AESS

• **The Urgency for System Engineering Education**

- *Increasing complexity of aerospace products coupled with the anticipated shortfall supply of qualified engineering human resources and in particular of systems engineers has been for some time a topic of discussions among industry executives, academia and professional engineering societies. This lecture addresses the urgency for developing systems engineering practitioners capable of meeting the 21st century challenges in the Aerospace industry. A synergistic and collaborative approach among Government, Academia and Industry is being proposed.*

Distinguished Lectures

▶ Joint DLs

◦ AESS

- **Practical Considerations for Effective Systems Engineering**

- *Effective implementation of systems engineering is critical for the viability of the aerospace industrial base and its competitiveness. This lecture provides practical guidance for key systems engineering processes including requirements development and management, project planning and management. Emphasis is given in the development and utilization of the Systems Engineering Management Plan (SEMP) to manage the overall project technical effort.*

Distinguished Lectures

▶ Joint DLs

- **AESS**

- **Competency Development for Systems Engineering Practitioners**

- *Systems engineering is implemented through practitioners whose individual and collective work and knowledge are critical factors having a great impact in the effectiveness of the systems engineering process. Often systems engineers are assigned to project roles which are either ill defined or they require higher competency and experiential knowledge. This lecture will discuss the importance of establishing a systems engineering competency with clearly defined outcomes and corresponding rewards. An integrated framework is suggested that best aligns systems engineering competency levels with management types to address both strategic and tactical organizational needs.*

▶ **Action: Identify Common DLs with other member societies; each representative to provide a list to Theo**

- **No inputs**

Other Activities

- **System Engineering Book Of Knowledge (SEBoK)**
 - Updates are being led by Stevens Institute Of Technology
 - **Paul Croll is participating as an author**
 - **Theo Saunders is participating as a reviewer**
 - *Received directions to start the review updates of the SEBoK version 0.25*
 - *Review Comments of the 0.25 Release are Due on December 15, 201*
 - **Version 0.5 planed release September 2011 followed by version 1.0 in 2012**