



Re-examining Systems Engineering Technical Program

June 11, 2005
Loyola Marymount University
7:30 a.m. to 5:00 p.m.

The Los Angeles Chapter of the International Council on Systems Engineering (INCOSE) is sponsoring a one-day technical mini conference on June 11, 2005 at Loyola Marymount University. Registration and continental breakfast will begin at 7:30AM. The conference will open with a keynote presentation at 8:30 AM from Colonel James R. Horejsi, Chief Engineer and Deputy Director of Systems Acquisition, Directorate of Systems Acquisition, Space and Missile Systems Center, Air Force Space Command. Col Horejsi will discuss [System Engineering Revitalization](#) at the Space and Missile Center.

The technical program will begin at 9:45 AM and consist of five simultaneous tracks. Each presentation in the series will be approximately 30 minutes in length. The tracks and presentations are listed below:

Track 1: System Engineering for Integrated Technical Business Environments

Chair: Mr. Michael Kim, Northrop Grumman

Presentations:

1. System engineering Cost Collection Codes ay Raytheon Space and Airborne Systems
By Thomas Cowles - Raytheon
2. Project Management in the Small
By Eric Cahill - Boeing
3. Program System engineering Revisited
By Lynn Baroff - JPL
4. Applying Systems Dynamics Modeling to SMC Acquisitions
By Anil Gupta - The Aerospace Corporation
5. Successful Risk Management and Systems Engineering Collaboration
By Edmund Conrow - Risk Services
6. Risk Scales - Their Use and Abuse in Risk Analysis
By Edmund Conrow - Risk Services
7. A Well-Executed Risk Management Process
By Ben Wu – Boeing

Track 2: System of Systems Engineering for the Enterprise

Chair: Anna Warner, Boeing

Presentations:

1. The Dynamics of Metasystems
By Dennis. H. Quine - The Aerospace Corporation
2. Risk Management for Systems of Systems
By Edmund Conrow - Risk Services
3. The Systems Engineering Enterprise
By Jack Ring -
4. Enterprise Workforce Planning in a Dynamic Project Environment
By Robert Aster - JPL
5. Role of Systems Engineering in Large Scale Systems Integration
By Anna Warner - Boeing
6. People Factors in Managing Complex Systems
By Anna Warner - Boeing
7. Risks in Complex Systems and the Business World in Which They Operate
By Joseph E. Justin - Boeing

Track 3: System Engineering Processes & Lean Systems Engineering

Chair: Ravi Mathur, Boeing

Presentations:

1. Process Architecture and Criteria for Lessons Learned
By Thomas Cowles - Raytheon
2. Lean Product Development
By Bohdan W. Oppenheim - LMU
3. LAI Lean Academy

- By Bohdan W. Oppenheim – LMU
- 4. Using Quantitative Decision Making to Create Value in Systems Engineering
By Jim Pedersen - Boeing
- 5. Transforming the Engineering Enterprise
By Scott Miller - IDS Boeing
- 6. Controlled Sharing of Sensitive Information
By Stuart Schaeffer - The Aerospace Corporation
- 7. Taxonomy of Standards for Interoperability
By Vish Dixit – Boeing

Track 4: Agile Methods in Systems Development

Chair: Malcolm Currie - SEC Services

Presentations:

- 1. Avoiding the Failed-System Destiny of Most Large Systems - Part 1
Agile Method: Involving all of the stakeholders in early planning is critical to ultimate success
By John Cosgrove – Cosgrove Engineering
- 2. Avoiding the Failed-System Destiny of Most Large Systems - Part 2
Agile Method: The individuals responsible for development need to be included in assessment of risk and failure
By John Cosgrove – Cosgrove Engineering
- 3. The Waterfall Model of Royce – Revisited
By Malcolm Currie – SEC Services
- 4. Agile Concepts Don't Apply to My Project.
By Garold Johnson – Dynalt Consulting
- 5. Applying “Model Driven Development” for Agile Systems Engineering – Part 1
Process Overview and Maximizing Productivity through Model Based Requirements
By Dennis Andrews – I-Logix
- 6. Applying “Model Driven Development” for Agile Systems Engineering – Part 2
Maximizing Productivity through Executable Models and Auto Test Vector Generation
By Dennis Andrews – I-Logix
- 7. Exposing Common Myths in the Application of Agile Methods
By Paul McMahon – PEM Systems

Track 5: Human/Software/Hardware Integration

Chair: Michael Maar, Boeing

Presentations:

- 1. Industry Calibration Results for COSYSMO
By Ricardo Valerdi
- 2. Mission Assurance: Four Difficult Questions
By Scott Jackson – Boeing
- 3. Motion Sickness Neural Scientific Discoveries
By Sherry Pietras – Boeing
- 4. Applying the Object Oriented Systems Engineering Method to a Simple Hardware System
By John Hsu – Boeing
- 5. Software/Hardware Integration and Systems Engineering
By Robert Rasmussen – JPL
- 6. An Application to Systems Engineering of a Framework of General Schemas Theory
By Kent Palmer - Raytheon
- 7. Simulation-Based Engineering of Complex Systems
By John Clymer - Cal State Fullerton

The conference will conclude with a panel discussion on the INCOSE Technical Vision, which was begun at the International Workshop in Portland in January 2004 and is now nearing completion. Version 1.0 is on the INCOSE web site for all to read. This document reflects the philosophy that systems engineering is not a static discipline but is ever growing. It addresses questions, such as: How can systems engineering best handle more complex systems? How can it be adapted for use in commercial and manufacturing domains? How will it address the network-centric paradigm? How does systems' architecting fit into the picture? Is there such a thing as the “grand theory of systems engineering”? How will systems engineering address human-centric systems? Can systems engineering for systems and software be reconciled? Scott Jackson will lead the panel and be joined by several other INCOSE fellows from LA; Elliot Axelband, Barry Boehm, George Friedman, John Velman. In addition, Jack Ring from Arizona and Jeff Grady from San Diego will participate.