



Chapter Meeting Highlights

Patterns and System Architecture

We were lucky to have Dr. Rob Cloutier fly down from Stevens Institute of Technology to share his perspectives on the application of patterns to system architecture discipline. He began with the roots of patterns from building architects, through the application by the software community, and finished with the extensions that he is recommending as we apply them to system architecture and design. He covered several examples that highlighted the

significant benefits of both documenting patterns and using properly documented patterns. Rob also finished his briefing with an offer: should anyone wish to use a pattern from his website or anyone who wants to share/document a pattern into his database, that Rob would personally help make it happen. Take him up on this generous offer!!

A Focus on Healthcare

We had a double header for the March Chapter meeting with a focus on the Healthcare industry.

First up was Cyril Doucet, Vice President of Operations and Administration at the Burnham Institute for Medical Research at Lake Nona.

Cyril shared with us his role in overseeing the stand-up of the new Burnham facility and also shared his insight into the benefits that biotech clusters such as the Lake Nona "Medical City" can bring to the community, creating opportunities for partnership in education, research, and treatment.

While the researchers at the Burnham Institute don't use a systems engineering process, per se, Cyril was able to draw parallels between the SE process and the disciplined approach researchers use for their scientific research, also pointing out the cross-disciplinary collaboration we often see in systems engineering. Discussion among the audi-

ence also made comparison to the cluster concept and what we see in the Simulation domain with military installations and the many companies that have sprung up in the area to support them.

Next up was Rick Biehl, fellow INCOSE Orlando member and IT quality consultant. Rick's presentation was very thought provoking as he shared his thoughts on systems engineering relative to the healthcare field through the telling of personal experiences.

Given the magnitude and complexity of healthcare data along with the relative lack of process being used in developing healthcare systems we have tremendous opportunities as systems engineering professionals to reach out to the healthcare industry and share our expertise.

To view these and other the presentations visit the [INCOSE Orlando website](#).

UPCOMING CHAPTER EVENTS

April 2-4:
Region V Spring Conference

Topics for future meetings are being finalized, but go ahead and mark your calendars!

April 16: Chapter Meeting

May 21: Chapter Meeting

June 18: Chapter Meeting

July: INCOSE Orlando takes a holiday

August 20: Chapter Meeting

September 17: Chapter Meeting

Check the [INCOSE Orlando](#) web site often for the latest news on upcoming events.

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INCOSE Region V Spring 2009 Conference April 2 – 4, 2009

Virginia Modeling, Analysis and Simulation Center (VMASC)
Suffolk Facility - VMASC West
1030 University Blvd.
Suffolk, VA 23435

Not able to make the trip to Suffolk?

INCOSE Orlando, in partnership with [SAIC](#), is making the conference available via web cast.

Science Applications International Corporation (SAIC)
Science II
12901 Science Dr.
Orlando, FL 32826

The conference theme is *Systems Engineering – Affordable Success*. It focuses on the means and tools to lead and create organizations that develop affordable systems. It is known that systems complexity has dramatically increased over the last two decades. It is therefore even more important to develop leaders and processes to more cost effectively track development costs, calculate complexity, and leverage known solution and techniques.

More information about the conference can be found at: <http://www.incose-spring09.org>

If you're interested in participating in the conference via the webcast at SAIC please contact: Tom Herald (tom.herald@lmco.com) or Linda Britt (linda.britt@ngc.com)

Member News

Current membership in the Orlando Chapter stands at 103 as of month-end February 2009. If you haven't renewed your membership yet or you're interested in becoming a member, visit the [INCOSE Membership page](#) or contact [Jerry Gordon](#).

New Members (January)

Judd Cheatwood, General Dynamics

Jeff Truong, SAIC

Keith Dalke, Lockheed Martin

Mark Faulk, SAIC

New Members (February)

Francisco Bermudez, SAIC

Gregory Dukstein, SAIC

INCOSE Orlando members presenting at the INCOSE Region V 2009 Conference April 3rd in Virginia.

Jeff Bryson will present a paper on 'Prescriptive Requirements Analysis'. This paper is a companion to the presentation he gave to the Orlando INCOSE group last October.

Tareq Ahram and Waldemar Karwowski will present a paper on 'Measuring Human Systems Integration Return on Investment'

News from UCF

The Institute for Advanced Systems Engineering (IASE)

The Institute for Advanced Systems Engineering (IASE) at the University of Central Florida and INCOSE Orlando are pleased to announce the availability of the IASE lab to INCOSE members, for the purpose of conducting Systems Engineering (SE) research, with UCF faculty and students. This partnership was developed to achieve two specific objectives: 1) To support INCOSE members who would like to address specific SE challenges outside of their work environment, and 2) to provide an environment where research teams composed of professionals, faculty and students can work on, and develop solutions to, real world SE problems.

Recently IASE has been working with two INCOSE members, Ed Smith and Jeff Bryson, to finalize the details of this partnership. As a result, in recent weeks, Ed Smith and Jeff Bryson have been working in the IASE lab, where they have built the same simple model in several Model-Based Systems Engineering (MBSE) tools such as System Architect, Rational Rose, and Telelogic Rhapsody. They are now analyzing the representation of this common model in

each tool to determine how to implement both a Prescriptive Requirements Analysis process and to define a Prescriptive System Architecture Process. It is expected that this research activity will expand to a students/faculty/INCOSE members' research team in the near future. Anyone interested in participating in this specific research activity can contact Jeff Bryson at jeffery.e.bryson@lmco.com.

IBM is the sponsor of the IASE lab and provides the tools sets within the lab. IASE and IBM are currently working to get additional hardware for the lab and the latest IBM MBSE line of tools. Several meetings with IBM over the past few weeks, and more recently a meeting between the IBM regional technical representative and the INCOSE research team all indicate IBM's strong support for this partnership. If you have a research idea, and would like to be part of an integrated team of researchers, please contact Dr. Serge Sala-Diakanda at serge@mail.ucf.edu.



INCOSE Orlando takes part in Lockheed Martin IT Expo

The [Lockheed Martin Simulation, Training & Support](#) Information Technology team held an IT Expo on Wednesday, February 18th, at the Lake Underhill facility in Orlando, Florida.

The purpose of the Expo was to broaden the awareness of LM employees about the IT services and solutions they have available. Ed Smith and Tom Herald represented the INCOSE Orlando chapter, sharing information about the chapter including professional development and networking opportunities provided.

If you know of other opportunities for increasing awareness of INCOSE, please let us know how we can help.

Professional Development & Networking

JACMET Engineering Symposiums

Advances in Model-Driven System Design Symposium

Arizona State University, Mesa, AZ

April 23, 2009

<http://webapp.poly.asu.edu/jacmet/>

OOPSLA 2009

Mind, Body, and Soul

Disney's Contemporary Resort, Orlando, FL

October 25-29, 2009

<http://www.oopsla.org/oopsla2009/>

INCOSE on Facebook

<http://www.facebook.com/group.php?gid=2401197273>

(Copy link and paste in your browser)

EDUCATION ALERT:

New Graduate Systems Engineering Degree Offered by Georgia Tech Coming to Orlando

Georgia Tech (GT) is offering an exciting, new graduate degree in Systems Engineering. GT recognizes the valuable integrative nature of Systems Engineering, and this value increases as enterprises become more complex and technology changes at an accelerated pace. GT also recognizes the growing need for practical rather than theoretical solutions to real-world problems. The new GT Professional Masters of Applied Systems Engineering (PMSE) addresses the needs of the complex enterprise and gives you the opportunity to immediately apply this practical knowledge to your job.

PMSE considers the systems engineering process as a **multifaceted and multi-disciplined function** within and between organizations. GT has developed a mindset of "systems thinking" by focusing on the following principles: the systems engineering process, systems requirements engineering, analysis and design, integration, modeling and simulation, verification and validation, and team leadership and management. As part of the PMSE, the **interactive laboratories** give you hands-on experience using specific systems engineering applications, tools, and technologies to solve real-world problems.

The program's unique format gives you the best of both worlds as a student and busy professional. The program is part-time, so there is no need to interrupt your career. With a blended format, just over half of the content will be presented online using distance learning tools – PMSE is available when you are ready. So even if you are traveling, you will be able to access your course materials and as-

signments from any internet connection.

Online content is supplemented by face-to-face instruction each semester. But the beauty of the program is that the instructors come to you. Cohorts for this program will be established in major cities across the United States – including Orlando.

The PMSE program will help you develop the following key skills and knowledge to help you and your organization successfully compete in an integrated, global market:

Skills:

- Strategic Thinking
- Leadership
- Organization Building
- Technical Management
- Team Building
- Managing people
- Managing Project Scope

Knowledge:

- Enterprise and System Architectures
- Decision Analysis
- Engineering Risk Analysis
- Requirements Definition
- Life-Cycle Management
- Project Management, Finance and Business

For more information about the GT PMSE, please see the website: www.pmse.gatech.edu or contact Joy Hymel, GT Professional Education, 404-385-3629, joy.hymel@innovate.gatech.edu.

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