



**San Diego Chapter**  
**P.O. Box 262055**  
**San Diego, CA 92196-2055**

The INCOSE San Diego Chapter will hold its next membership meeting on Monday, **May 24, 2010**. This will be a free dinner meeting for INCOSE members and their guests.

**TIME:**

5:30 PM – 6:00 PM Sign-in and Networking/Dinner  
6:00 PM Speaker Presentation  
7:00 PM Adjourn

**LOCATION:**

[Scripps Ranch Community Center](#) (left-hand side of the street)  
11885 Cypress Canyon Road, San Diego, CA 92131

**SPEAKER:**

Jo Ann Lane  
Research Assistant Professor at the DoD-Stevens-USC Systems Engineering Research Center

**TOPIC: System of Systems: What They Are and How to Engineer Them**

To quickly respond to changing business and mission needs, many organizations are integrating new and existing systems with commercial-off-the-shelf (COTS) products into network-centric, knowledge-based, interoperable, software-intensive systems of systems (SoS).

With this approach, system development processes to define the new architecture, identify sources to either supply or develop the required components, and eventually integrate and test these high level components are evolving and are being referred to as SoS Engineering (SoSE). This presentation describes the results of SoS and SoSE investigations that explore the characteristics of SoSs, the corresponding SoSE challenges, and how engineering teams are addressing these challenges. In particular, it discusses:

- Types of SoS
- Incremental commitment and evolution
- Application of lean principles
- Engineering cost estimation
- Engineering and management artifacts
- SoS models to support SoSE
- SoS test and evaluation approaches.

**ABOUT THE SPEAKER:** **Jo Ann Lane** is currently a research assistant professor at the DoD-Stevens-USC Systems Engineering Research Center, conducting research in the area of systems engineering and system of systems engineering (SoSE). She was a key participant in the development of the recent Department of Defense *Systems Engineering Guide for Systems of Systems*. Current areas of research include SoSE processes, SoSE cost modeling, SoSE test and evaluation, system development feasibility assessments, and innovation in systems engineering. Prior to her current work in academia, she was a key technical member of Science Applications International Corporation's Software and Systems Integration Group for over 20 years, responsible for the development and integration of software-intensive systems and systems of systems. She received her PhD in systems engineering from the University of Southern California and her Master's in computer science from San Diego State University.

**RSVP To:** Joyce D. Williams at [joycedwilliams@sbcglobal.net](mailto:joycedwilliams@sbcglobal.net) by **Friday, May 21<sup>st</sup>**. This meeting is open to both members and non-members. **Bring a friend or colleague!**