International Council on Systems Engineering
Delaware Valley Chapter Meeting (Non-members welcome to attend)

"SE Lifecycles and Agile Development"

Speakers: **Bill Miller (Innovative Decisions) and Walt Sobkiw (Cassbeth)**

Joint meeting with the Penn Systems Engineering Club

For abstracts and the authors' biographical summaries, see following pages.

Date: **Tuesday evening, November 10th, 2015**

Agenda:
6:00-6:30: arrival and pick up bagged meal
6:30-6:45: self-introductions by attendees
6:45-7:15: Bill Miller presentation and discussion
7:15-7:45: Walt Sobkiw presentation and discussion
7:45-8:15: networking with the students
8:15-8:30: Chapter business

Place: Raisler Lounge, 2nd Floor, Towne Building, University of Pennsylvania, Philadelphia, PA, 220 South 33rd Street. Please enter through the door at the south-west corner of the building and show the guard some form of ID.

Reached by public transport or car, see http://www.facilities.upenn.edu/map.php.
Visitor parking is available on the street and in nearby garages – the Chapter will refund your parking fee. The closest garage is on 34th Street just north of Chestnut Street. From there walk south on 34th St. past Walnut St., continue on left side of street to Smith Walk (statue of Smith on left). Follow this path to Towne Bldg. on left.

There is a train station at 30th and Market, a subway station at 34th and Market, and a trolley station at 33rd and Market.

Reservations: Please contact peter.crosby.scott@comcast.net ASAP if you plan to attend this event – deadline **November 6th** for the meal count: please choose from the sandwich selection at the end of this flyer. $10 for the meal (As always, all students are FREE, just bring student ID).

Abstracts and Bios

SE Lifecycles, Processes, and Lifecycle Management – What are they and how do they work?

Bill Miller (Innovative Decisions) -

Abstract. The scope of systems engineering spans the life cycles of products and services. ISO/IEC/IEEE 15288:2015, Systems and software engineering—System life cycle processes standardizes the processes for performing systems engineering across a generic life cycle. This provides a framework with the intent to achieve successful systems and services in the eyes of stakeholders. We place the life cycle and processes, implemented using methods and tools, in the context of the environment, people, accelerating technology advances, time and uncertainty. Referencing the 15288 standard and the BKCASE Guide to the Systems Engineering Body of Knowledge, we explore the types of life cycles in practice: predetermined and iterative.
Life cycles used in the different government and commercial domains, e.g., space systems and commercial high technology, vary from the generic 15288 life cycle, yet there is a discernable common underlying pattern. In the development phase of the life cycle, we describe the Vee and spiral models. The tailoring of processes is emphasized across different domains and both agile and lean methods are highlighted. Systems engineering has a critical role in life cycle and maturity management spanning planning, assessment & control, risk management, measurement, decision management, configuration management, information management and quality management. Potential pitfalls in applying processes are discussed throughout the presentation.

Biography
Bill Miller (Innovative Decisions) -
William Miller is Executive Principal Analyst, Innovative Decisions, Inc., Vienna, VA USA; owner and principal of WDM Systems, a consultancy; and Adjunct Professor in the School of Systems and Enterprises, Stevens Institute of Technology, Hoboken, NJ USA. Bill has been an INCOSE member for 22 years, is editor-in-chief of INSIGHT magazine, and is supporting an emerging initiative to assure that systems are fit for purpose throughout their life cycle. He served as technical director (2013-2014), deputy technical director (2011-2012), three terms as INCOSE secretary, is the former secretary of the INCOSE Foundation and was co-chair of the INCOSE Metrics Working Group. Bill is a founding member of the Liberty Chapter, having served as secretary and president. He is a member of the IEEE and its Communications, Systems Man and Cybernetics, Control and Computer Societies. Bill has 42 years technical and management experience in commercial telecommunications and government communications systems, including 20 years at Bell Labs. He has BS and MS degrees in electrical engineering with focus on control systems and digital design from the Pennsylvania State University.

Agile in Systems Engineering - Round Table

Walt Sobkiw (Cassbeth)

Abstract. Agile development has started to enter some very complex areas traditionally reserved for serious systems engineering. Many systems engineering intensive organizations are not familiar with Agile and assume that the dictionary definition of being Agile applies. While it is obvious that all organizations need to be agile from a dictionary definition perspective, it is unclear if the Agile process as defined by the official Agile community applies to all situations. Walt will provide an overview of Agile, the process. He will start with a brief history of the Agile Manifesto including the signers of the Agile Manifesto and move into some of the elements of the Agile process. The presentation will then compare the Agile Manifesto to Systems Engineering and traditional management. Walt will then open up the floor for a discussion on Agile from the meeting attendees.

Biography
Walt Sobkiw (Cassbeth) -
Walt Sobkiw helped start the MS Systems Engineering program at Drexel University. He provided major contributions to the curriculum, developed four key courses in systems engineering, and teaches systems engineering. In addition to teaching, he has held government and commercial positions developing Air Defense, Air Traffic Control, Simulation Training, and Communications systems for over 38 years. Previously he advised University of Pennsylvania students on their systems engineering sustainable development senior design projects. He has authored papers at technical conferences and written two textbooks on systems engineering. He is also active with the Delaware Valley chapter of INCOSE.

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Meal Choices

From Bon Appétit Catering at Penn…

1) Portabello Sandwich: Soy-glazed Portabello Mushrooms, Asian Slaw on Ciabatta

2) Avocado BLT: Creamy Avocado spread, Applewood Smoked Bacon, Red Leaf Lettuce, Tomato and Flaky Croissant

3) Roast Beef with Tarragon Cream with Lettuce, Tomatoes and Creamy Tarragon Spread on Ciabatta

4) Cranberry Turkey Ciabatta: Cranberry Mayonnaise, Leaf Lettuce, Tomatoes and Red Onions on Ciabatta Bread

Each sandwich will come with a Granola bar, bag of chips, whole fresh fruit, house-made soft cookie and bottled water.

For further information about the International Council on Systems Engineering please visit the INCOSE website at http://www.incose.org/ and the Delaware Valley Chapter website at http://www.incose.org/ChaptersGroups/Chapters/ChapterSites/delaware-valley/chapter-home. The Penn Systems Engineering Club website is at https://sites.google.com/site/pennincose/home.