

## INCOSE Michigan Chapter Meeting February 22, 2018

6:30 – 9:00pm



Sponsored by 321 Gang

## Harmony aMBSE: Agile Model-Based Systems Engineering

Traditionally systems engineering is a heavily documentbased approach. The arrival of the SysML modeling language changed the face of systems engineering from a process of creating and reviewing documents to the construction, analysis, and execution of high fidelity systems models. This evolution of systems engineering has resulted in improved requirements specification, better architectural definition, and better hand off to engineering, including mechanical, downstream electrical and software development. What is needed now is a process that takes advantage of the advances in model-based engineering (MBE) while at the same time reduces the time and effort required for systems engineering. Agile methods have proven successful in the software domain, but how can these incremental, iterative, and agile methods be integrated with modelbased systems engineering? Dr. Bruce Powel Douglass, author of the best-selling Agile Systems Engineering, talks about how agile methods have had a tremendous impact on the development of embedded and real-time software and how to best gain the advantages of agile methods within the systems engineering domain.

## About Our Speaker: Bruce Powel Douglass

Embedded Software Methodologist. Ironman triathlete. Systems engineer. Ultramarathon cyclist. Contributor to UML and SysML specifications. Writer. Black Belt. Neuroscientist. Classical guitarist. Bruce Powel Douglass, who has a doctorate in neurocybernetics from the USD Medical School, has over 35 years of experience developing safety-critical real-time systems in a variety of



hard real-time environments, doing both systems engineering and embedded software development. He is the author of over 6000 book pages from a number of technical books including **The Harmon aMBSE Deskbook, Agile Systems Engineering, Real-Time UML, Real-Time UML Workshop for Embedded Systems, Real-Time Design Patterns, Doing Hard Time, Real-Time Agility, and Design Patterns for Embedded Systems in C**. He has contributed to a number of standards including the UML, SysML, UML Profile for

Schedulability, Performance and Time, UML Fault Tree Analysis Profile, and the UML Security Analysis Profile (in development). He is the Chief Evangelist at IBM Internet of Things (IoT), where he is a thought leader in the systems space. He can be followed on Twitter @IronmanBruce

Tickets (Includes Networking Dinner)Members - \$5Student Members - FreeAffiliates - \$10New Members: Free with Registration

Lawrence Technological University 21000 West 10 Mile Road Engineering Building E101 Southfield, MI 48075 University Map - E101, Engineering Building 6

