INCOSE Canada Chapter

"Model-Based Systems Engineering for the complexity of modern systems"

Abstract

Model Based Systems Engineering (MBSE) consists of applying leading edge architectural modelling tools and techniques to systems engineering. Employing the latest technology to more accurately, intuitively and comprehensively represent such systems provides the Systems Engineer a much more effective means of identifying and controlling the complexity of modern systems.

This workshop will provide an overview of these techniques and the advantages they provide, drawing on development effort for a cross domain control solution for unmanned systems- air; sea; ground and underwater. Using a complex, real world example to illustrate the concepts and advantages of MBSE, the attendee will be able to relate the theory and practices of MBSE to actual application to complex system development

Keynote Speaker – Mr. Michael Meakin, Kongsberg Geospatial

Mike Meakin trained as a Systems Engineer while serving as a Combat Systems Engineer in the RCN. Following his release from the service, he continued to develop these skills while working in the unmanned systems domain, primarily in support of developing the Shadow 200 Tactical UAV system for the US Army. In 2005, he published and presented at the Australian International Aerospace Congress one of the first articles describing the model based approach to Systems Engineering. He has applied these methods to a variety of military systems providing a breadth of experience across a variety of domains and problem spaces. Mike founded InnUVative Systems in 2007 to address the need he recognized for standards compliant solutions to meet the needs of the smaller unmanned systems. Mike served on the Unmanned Systems Canada board from 2006 to 2013, was a member of the STANAG 4586 standards committee from 2009 to 2013, served as vice chair of the NATO Industry Advisory Group Sub-Group 157 tasked with defining the ground station architecture for cross domain interoperability of unmanned systems and established the Working Group for NATO's Unmanned Systems Multi-Domain Control Solution. Mike was a contributing member of the Canadian Air Regulations Advisory Committee (CARAC) in the development of recommended changes to Canadian Air Regulations in support of routine operations of UAS within the Canadian National Air Space.

He has been a member of the board of directors for INCOSE Canada since 2014.