# System of Systems Engineering Collaborators Information Exchange (SoSECIE)

## ****November 17, 2020 11:00 a.m. to Noon Eastern Time****

**Achieving System-of Systems Interoperability Levels Using Linked Data and Ontologies**

***Presenter: Dr. Jakob Axelsson***

#### Abstract

Interoperability is a key concern in systems-of-systems (SoS). Numerous frameworks have been proposed to deal with this, but they are generally on a high level and do not provide specific guidance for technical implementation. However, in the context of simulation, the Levels of Conceptual Interoperability Model (LCIM) has been proposed. Also, the semantic web initiative has been introduced to provide description logic information to web pages. This presentation investigates how these two concepts can be combined into a general approach for SoS interoperability. It also expands on the LCIM model by providing more details about the world models of a system and its content on the higher levels of interoperability and discusses experiences from applications.

#### Biography

Jakob Axelsson received an MSc in computer science in 1993, followed by a PhD in computer systems in 1997, both from Linköping University, Sweden. He was in the automotive industry with Volvo Group and Volvo Cars 1997-2010. He is now a full professor of computer science at Mälardalen University, Sweden and a senior research leader in systems-of-systems at RISE Research Institutes of Sweden. His research interests are focused on all aspects of systems-of-systems engineering, and in particular system architecture. Prof. Axelsson is a member of INCOSE and has served as chairman of the Swedish chapter.