# System of Systems EngineeringCollaborators Information Exchange (SoSECIE)

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***11:00 a.m. to Noon Eastern Time***

***Systems-of-Systems Opportunities and Challenges Related to Mobility in Smart Cities***

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#### Abstract

Urbanization is one of the major current trends in society. Cities around the world are looking into “smart” solutions based on information and communication technology to deal with the challenges that result from this development. Mobility is one of the most important areas to address, and system-of-systems solutions where vehicles and infrastructure are connected have a potential to improve urban transportation in many aspects. In this talk, potential applications for systems-of-systems engineering in urban mobility are described, and main components to be considered are elicited, including principal stakeholders, their needs, types of solutions, and challenges. The talk will also give an overview of an ongoing Swedish research program on systems-of-systems for smart urban mobility.

#### Biography

Jakob Axelsson is professor of computer science at Mälardalen University in Sweden and senior research leader in systems-of-systems at RISE Research Institutes of Sweden. He received a PhD in computer systems in 1997, and has a background of about 15 years in industry, mainly in the automotive domain at Volvo where he was involved in research and advanced engineering in areas such as system architecture, systems engineering, and model-based development. His current research interests are focused on systems-of-systems engineering, where he is leading a number of projects in domains such as transportation and construction. He is the author of around 100 research papers. He is a member of INCOSE and has been chairman of the Swedish chapter.