# System of Systems EngineeringCollaborators Information Exchange (SoSECIE)

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

**Communication Oriented Modeling of Evolving Systems of Systems**

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#### Abstract

Systems of Systems (SoSs) are composed of Constituent Systems (CSs) characterized by operational and managerial independence, but that can perform tasks together that they could not do by themselves. Given their potential complexity, modeling and testing such systems can be a daunting task, which is repeated when any system is evolved into a new one, especially when SoSs pertain to different owners.

This presentation will introduce the Abstract Communicating Systems (ACS) modelling framework which supports SoS design based only on observable communication properties and dataflow, and which eases the integration of changing/evolving requirements into an existing model through the assistance of model-based verification. The presentation will also discuss how ACS can support the creation of complex use cases with CSs pertaining to multiple owners.

#### Biography

Sean Kristian Remond Harbo from Aalborg University (AAU) got his B.Sc. in software engineering in the summer of 2020 and is currently studying for his master's degree therein. He has an interest in systems of systems design, as well as distributed systems in general with which he has worked during his studies, study job, personal projects, and now also his master’s project.