# Presentation abstract for SWITS 2019

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Abstract:

Cyber-attacks on power assets can lead to disastrous consequences for individuals, regions, and nations. In order to increase the awareness and the resilience towards those threats, a Cyber Security assessment of both Power Grids and Power Plants is needed. This can foster a higher degree of safety for the whole infrastructure dependent on power. For that purpose, the use of attack modeling and attack simulations based on system architecture models is a very powerful tool. The main aim of this project is to create such a tool that is able to perform a complete security assessment of the current and future infrastructure on the power domain.

The work will build on previous work on interoperability prediction, architecture-based analysis approaches and on probabilistic cyber-attack simulations. Previously, MAL (the Meta Attack Language) was proposed, which serves as a framework to develop domain specific attack languages (DSLs) and run attack simulations on the models created.

Additionally, as a side project, a tool that allows all the modeling to happen in ArchiMate and then transform it to a MAL-based DSL has already been developed. Such a tool could significantly fill the gap between Enterprise Architecture modelers and Cyber Security modelers and promote joint work.