## UNIVERSITY OF SOUTH FLORIDA

## Major Research Area Paper Presentation

## SoK: Understanding Security Issues in Vehicle Transportation Syster Holistic, Conteatware Manner

by

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Technology is revolutionizing vehicle transportation systems with the goal to improve efficiency, mobility, safety, and comfort. While there has been research looking into cyber security issues in transportation systems, such efforts are often fraggeting specific segments of the system, and lack a coherent framework that captures the overarching context. The vehicle transportation system is cosystem bediverse technologies, residing in myriad types of components dispersed over a wide geographic area. Understanding security issues in such system requires capturing the many ways technologies in the ecosystem may interact. Systematizing security issues that may arise through the interactions will benefit not only the management and ration of such systems, but also the design process of future systems and system components, which are undergoing rapid technological advancement. In this paper we provide such a systemization. This indifference of our effort is an in-depth, six-math embedding in a traffic management center (TMC) of a mid-size city in the U.S., where we gained dirst knowledge of the inner workings of the vehicle transportation ecosystem methodology helps to put security analysis into the context of the transportation ecosystem and provides a common platform for communication to help break down the silos existing both in research and in practice.