

# **ROADWAY SAFETY NETWORK SCREENING**

Prof. Khair S Jadaan

University of Jordan

## **ABSTRACT**

The risk of a driver being involved in a crash can be associated with a combination of several factors including traffic characteristics, driver reactions, roadway geometries, and weather conditions. Even though all roadways have some inherent level of risk, some roadway sites are considered more hazardous than others.

There are many methods to identify which locations are a potential safety concern (network screening) including Continuous Risk Profile (CRP), Artificial Neural Network (ANN) and Safety Performance Function (SPF) with the latter being most commonly used. SPFs are crash prediction models. They are essentially mathematical equations that relate the number of crashes of different types to a group of explanatory variables.

This speech explains the major steps in network screening, introduces and discusses the various issues related to the SPFs; definition, types and applications together with their development procedure. Some case studies of SPFs for roadway segments and intersections are presented. Finally, roadway safety network screening with incomplete traffic volume data is discussed.