

**Thesis title:**

Development of a methodology to evaluate the safety performance of low volume roads in Sri Lanka

**Abstract:**

Low volume roads provide the connectivity between residential/commercial areas and the national road network. They are especially critical in rural areas to provide accessibility to the community for the social and economic needs. Low volume roads account for nearly 61% of the road network length in Sri Lanka. With the rapid motorization take place in Sri Lanka (39,142 motor cars, 23,537 three-wheelers, 344,380 motor-cycles etc. have been added to the Sri Lankan roads in 2017), it is expected that traffic on these roads will increase significantly in the future. However, some of these roads have not been developed according to the standard design guidelines and raise major safety issues on such roads as a result. Considering the expected growth in traffic and prevailing issues with respect to roadway design, the safety level decrease in these roads raising a risk to the road user. Therefore, it is important to evaluate the safety performance of low volume roads. Existing safety evaluation methodologies rely on the traffic data, and accident statistics, which may not be readily available for the low volume road network. Therefore it is necessary to identify existing issues on low volume roads with respect to their roadway characteristics. The study proposes a novel methodology to evaluate the safety performance of low volume roads based on the its roadway characteristics and to incorporate safety performance in pavement management systems.