ROAD SAFETY INSPECTION USING THE HIRA METHOD
(HAZARD IDENTIFICATION AND RISK ASSESSMENT)
(Case Study: On Pramuka, Ahmad Yani, and Jend Sudirman Streets)

Student Name	: Muhammad Mardzuan
Student ID	: 4204211389
Supervisors	: Marhadi Sastra, ST., M.Sc

ABSTRACT

This research is motivated by the high number of traffic accidents in Bengkalis District, particularly along Pramuka Street, Ahmad Yani Street, and Jend. Sudirman Street. The main problems encountered include illegal parking on the roadway, entrance and exit access points that have the potential to cause traffic conflicts, and street vendors conducting activities on the road. The purpose of this study is to identify accident risks using the HIRA (Hazard Identification and Risk Assessment) method, determine the level of risk from the identified hazards, and provide recommendations for improving road safety. The research method involves the collection of primary data through road safety inspection surveys, road equipment inventory, vehicle speed measurements, and average daily traffic (ADT) data. Secondary data, consisting of accident records over the past five years, were obtained from the Bengkalis Police Department. The research findings and discussion on the three roads in the case study show that these roads do not have a median; traffic signs are 78% in good condition, road markings are 75% in good condition, and street lighting is 70% functional. The results of the study indicate that illegal parking poses a moderate risk at 75%, the entrance/exit access to SMPN 1 Bengkalis poses a high risk at 10%, and street vendors pose a low risk at 15%. In order to reduce the potential for accidents and the level of fatality, several handling recommendations are proposed, including the installation of missing or damaged traffic signs, provision of zebra crossings, installation of rumble strips, and maintenance of street lighting.

Keywords: Accident Risk, Hazard, HIRA, Road Safety Inspection.