# Perception of Luxury Rail Passengers on Implementing ITS Application in Railway: A Case Study on Colombo - Kandy Railway Line

**Uthpala A H A[1], Wanniarachchi S S[2]**

[1,2]Department of Logistics and Transport, CINEC Campus

ach.uthpala@gmail.com

Intelligent Transport System has become an emerging concept in the transport sector in Sri Lanka. The luxury passenger rail has been indicating a significant amplification during the last few decades. The luxury rail services available in Sri Lanka are 1st Class observation, Expo-Rail and Rajadhani Express, which operate daily from Colombo to Kandy and vice versa. This Research is based a case study conducted in Colombo - Kandy line as the higher rate of tourist use rail to reach Kandy. The objective was to understand the passenger perception of ITS based technological approach to the rail sector.

The target population was the total passengers using luxury rail services. A sample of 125 data was collected using a questioner survey, based on Stratified random sampling method. The set of data has obtained a reliability of 0.752 with a valid response rate of 73.5%. The Factor Analysis (FA) was used for data reduction method. The descriptive analysis has ensured that the sample consists of passengers with 69.6% of awareness in ITS applications and 98.4% had agreed that ITS applications should be installed in luxury rails for Colombo to Kandy network.

Data analysis showed that passenger perception ITS in rail a service had slightly allured towards communication utility and detection & visualization utility of ITS. The study derived eight important factors in customer persuasion in ITS, i.e. gateway convenience applications, smart card systems, emergency contacting systems, intranet connectivity, Ticketing systems and multimodal traveller information systems. The study has confederated that passengers have demanded a smarter rail service. It further suggested that implementation and integration of ITS in urban rail and in upcoming Light Rail transit services. This would help the rail sector increase the satisfaction level and to accelerate the growth.

**Key words:** *Intelligent transport systems, Luxury rail service, Customer perception*