

**CHENNAI – PONDICHERRY**

**ANOMALY DETECTION FOR ROAD TRAFFIC: A VISUAL**

**ANALYTICS FRAMEWORK**

**Abstract:**

The analysis of large amounts of multidimensional road traffic data for anomaly detection is a complex task. Visual analytics can bridge the gap between computational and human approaches to detecting anomalous behavior in road traffic, making the data analysis process more transparent. In this paper, we present a visual analytics framework that provides support for: 1) the exploration of multidimensional road traffic data; 2) the analysis of normal behavioral models built from data; 3) the detection of anomalous events; and 4) the explanation of anomalous events. We illustrate the use of this framework with examples from a large database of real road traffic data collected from several areas in Europe. Finally, we report on feedback provided by expert analysts from Volvo Group Trucks Technology, regarding its design and usability.