

# **Categorizing Datasets of Road Traffic Accidents in Oman Spanning From 2012 to 2022**

## **ABSTRACT**

Road traffic accidents constitute the primary cause of fatalities associated with injuries and engender substantial economic ramifications for affected individuals, their families, and entire nations. The Sultanate of Oman, like other countries, suffers from traffic accident injuries and traffic congestion. The accident rate for the period 2021 was recorded as one accident every six hours. Despite a 70% increase in total number of vehicles and an 81% rise in licensed drivers between 2012 and 2019, data on traffic accidents demonstrate an improving trend with a notable 55% decline in crash fatalities. However, it is important to recognize that road traffic accidents in Oman encompass not only social issues but also pose a significant economic burden, resulting in substantial financial costs for the nation. Notwithstanding, it was discovered that more than 50% of fatal crashes in Oman were primarily caused by excessive speeding. The main goal of this research is to analysis the causes and trends of traffic accidents at the national level in the Sultanate of Oman. Data analysis reveals speed as the primary cause of traffic accidents in Oman, with Muscat and Dhofar registering the highest accident rates. In addition, the distribution of deaths and injuries resulting from accidents varies according to Gender and nationality. According to the road accident scenario analysis in the state, more traffic accidents occurred in males than females. Traffic accidents have witnessed a notable decline over the past decade, attributable to the diligent efforts and interventions implemented by the Royal Oman Police.