

Machine Learning Techniques to Develop Traffic Accident Frequency Prediction Models

Authors : Rodrigo Aguiar, Adelino Ferreira

Abstract : Road traffic accidents are the leading cause of unnatural death and injuries worldwide, representing a significant problem of road safety. In this context, the use of artificial intelligence with advanced machine learning techniques has gained prominence as a promising approach to predict traffic accidents. This article investigates the application of machine learning algorithms to develop traffic accident frequency prediction models. Models are evaluated based on performance metrics, making it possible to do a comparative analysis with traditional prediction approaches. The results suggest that machine learning can provide a powerful tool for accident prediction, which will contribute to making more informed decisions regarding road safety.

Keywords : machine learning, artificial intelligence, frequency of accidents, road safety

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