**Problem statement : Road Accidents severity prediction to tackle the issue of accidents under – reporting in the UK**

Traffic safety is a societal issue and all over the world guidelines are made in an attempt to improve traffic safety and thereby decrease the high fatality and injury numbers. Traffic safety is described as the science providing methods (and/or measures) to reduce the number of fatalities and injured road users in traffic accidents. The first known traffic accident with a petrol-engine car was in 1896, where the first known pedestrian died. The number of road accidents in the UK plateaued from 2012 t0 2019 to around 1850 deaths a year.

The degree of under-reporting for traffic accidents is quite high in many countries, not only in low and middle-income countries but also for high-income countries . The problem also exists and in a meta-study on incomplete accident reporting conducted by Elvik and Mysen the huge challenge was documented.

Even though hospital and police data are matched and used as a common source, an unknown number of road crashes are not reported to any of the authorities and there may be mismatch in the report .All the documentation is done by the police officers present at the crash scene and, therefore, it is dependent on the individual officers’ estimate of injury. The problem of under-reporting may also be due to human economic and sociological factors but it could also be as a result of reporting procedure.

For this reason, the injury degree of the road users involved may not be the correct injury degree. Similarly, some of the reported crashes include only material damage but here there might be some self-treated injuries. To increase the reporting quality and accuracy, this project focuses on solving the issue of under-reporting cases of accident by predicting accident severity which are given on 3-step scale(slight injury(requires medical treatment), serious injury(results in temporary or permanent incapacity, and fatal accident) and also understanding why, where and when these accidents occurs.

The dataset is taken from kaggle.com and contains all traffic-related deaths in the UK in 2015.