

## ABSTRACT

The rate of road accidents is quiet high in developing countries and Pakistan is among those countries, Karachi which is the mega city of Pakistan faces 30000 annual accidents, road crashes are not only responsible for economic loss but often cause loss of ones live therefore it is very necessary to address the road safety conditions of the city. The use of 3D simulation for road safety is not a new concept in developed countries but it's still a new technique in countries like Pakistan. This application has been designed to identify the causes and effects of accidents as they are very important for the improvement of safety conditions. The VR application so built is based on Unity3D which provides 3D environment and enables to develop realistic simulations because of its physics library. From road crash data a black spot with highest probability of crash was chosen and modelled. It was concluded from the report that this application can be effective in improving the road safety conditions.