## Abstract

Indonesia is the fourth largest population in the world. The number of population is directly proportional to the number of motorized vehicles. The number of motorized vehicles in Indonesia is 138,556,669, of which 81.58% is dominated by motorbikes. This large amount adds new problems in the field of driving safety. Based on data from the central statistical agency, the number of traffic accidents in Indonesia is always large each year, which makes traffic accidents one of the ten biggest causes of death in Indonesia. One way to reduce the toll of traffic accidents is to implant a tool on a motorized vehicle in this case a motorcycle so that it can detect in the event of an accident and to facilitate relief with the coordinates sent by the tool. Using a microcontroller device that is connected to an accelerometer and gps sensor, this tool will retrieve data from a motorcycle and then classify the data on the server whether the motorcycle has an accident or not, if an accident occurs a warning message will be sent to the telephone number that has been registered. Based on the test results, the success rate of the tool to detect accidents is 94%.



**Keywords: KNN, *smart crash detector,* mikrokontroler, *event data recorder***