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(57) Abstract :
ML and IoT based smart helmet system to detect and prevent Early accidents in heavy traffic places in metropolitan cities Abstract: It is common knowledge that members of the younger generation favour riding bicycles and motor cycles. In addition, driving while under the influence of alcohol or drugs has become a widespread problem in today's society. There are hundreds of people losing their lives every year as a direct result of the accidents that occur on the roads. The primary reason for this is because there was a delay in providing victims with the necessary emergency assistance when it should have been delivered. Accidents will be detected by a smart helmet that makes use of the internet of things (IoT), and they will be reported to emergency contacts and nearby hospitals. This helmet has multiple applications, including the detection of alcohol, the sending of a notification as to whether the rider is wearing a helmet or not, the giving of a warning alarm to remind them to wear a helmet, and the locking of the engine until the rider has put on their helmet. It also detects accidents. In this situation, accident detection systems convey accelerometer measurements to the CPU, which then continuously examines for irregular fluctuations. After an accident has happened, the GSM and GPS module work together to pinpoint the exact location of the car. Then, the cloud is used to transmit this information to the relevant emergency contacts. The primary function of this system is to give information that is timely, accurate, and relevant to the accident, as well as to transmit such information in the form of messages to the emergency contacts. As a result, the primary objective of this study is to develop an Internet of Things (IoT)-enabled "smart helmet" that will make it possible to protect those who have been injured in an accident.

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