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# Anti-Theft System for Two Wheelers

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**Abstract:** *This project presents a smart bike with monitoring system for cyclist via internet of things (IoT). The system is designed for real time monitoring of cyclist in terms of health condition and cyclist's performance. The whole system consists of various sensors such as heart rate sensor, pulse oximetry sensor, magnet reed sensor and GPS module. The sensors are connected to the microcontroller and Wi-Fi module that can be accessed through an IoT platform which is blink application. The data of the cyclist in terms of health condition and cyclist's performance can be monitored by the cyclist as well as their coach. First, heart rate sensor was used to monitor the heart rate of the cyclist within time whereas pulse oximetry sensor was used to measure the oxygen saturation inside the cyclist's body. Meanwhile, magnet reed sensor was mounted to the frame of the bike to measure the speed and distance travelled by the cyclist. Plus, GPS module was used to track and trace the position of the cyclist. The data that have been transmitted can be synchronized or displayed on smartphone via blink application. Therefore, GUI interface of blink application displayed the parameter such as heart rate, pulse oximetry, speed, distance travelled and position for the cyclist and coach to monitor their health condition and cyclist's while in training or tournament. IoT is the internetworking of physical devices, vehicles, and other devices embedded with the electronics, software, sensors and network connectivity that enable to get data of those objects. Confiscating details from their own vehicle without making any physical touch is a hardly possible one. Augmentation of Smartphone makes a large impact in society by diminishing their toil. A surge movement of applications in the Smartphone may cutback the human's accent. In India transportation is a booming field where the count of vehicles increasing day by day. Security and maintenance of those vehicles is a risky one. Monitoring vehicle parameters like fuel, engine oil, tyre pressure is an ideal to know without making any physical touch of the vehicle. Digital locking system is a much needed one in this digital domain. Tracking of our vehicle is also a vital one when your vehicle is not with you. IoT based vehicle parameter monitoring system is a capable one which leads to monitor our vehicle's parameters such as fuel level, tyre pressure, engine oil level through an Android App. It's Smart RFID digital key secure your vehicle more than by accessing by keys. In this app we can save our vehicle documents, user driving license, insurance copy and other documents. Notification for engine oil, battery rejuvenation is also done. Message and share's location to trusted persons whenever ensue accidents..*

**Keywords:** Bicycle, protection, safety, cycle parking, cycle

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