

# Making Smart Helmet for Smart City

Mrs. Dr Anjali U. Jawalekar<sup>1</sup>, Apurva A. Dabhade<sup>2</sup>, Vaishnavi R. Urkude<sup>3</sup>,  
Aishwarya M. Kathole<sup>4</sup>, Gayatri G. Masne<sup>5</sup>, Tejaswini S. Masne<sup>6</sup>, Uday P. Deshmukh<sup>7</sup>

Associate Professor, Department of Electrical Engineering (Electronics and Power)<sup>1</sup>

Students, Department of Electrical Engineering (Electronics and Power)<sup>2,3,4,5,6,7</sup>

Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Maharashtra, India

**Abstract:** *This project has been developed out of a sense of social responsibility towards the community. While riding a bicycle can be enjoyable, accidents can and do happen. Due to its affordability, ease of maintenance, and versatility in traffic, many individuals in India choose to ride two-wheelers over cars. However, the accident rate for two-wheelers is much higher than that of four-wheelers, with motorcycles being particularly prone to fatal accidents. The primary goal this project to safety measures, secure the protection and well being of rider. This end, the system is designed to require the rider to wear a helmet and not have consumed alcohol before the motorbike will start. Alcohol verification is achieved through the use of an Alcohol sensor, while helmet detection is achieved using IR sensors. The security system is designed to send an alert to the homeowner's smartphone if any motion is detected in the house, which can be useful when they're away from home. Incorporating these features, the system aims to prevent accidents and keep the rider safe. Furthermore, in the event of an accident, the GSM technology will be used to notify the rider's family members. The accelerometer is used for accident detection, while the helmet and motorbike communicate wirelessly through the Inquire module.*

**Keywords:** GSM, GPS, Helmet Authentication, Alcohol Detection, IR sensor

## REFERENCES

- [1]. International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Published by, www.ijert.org NCETESFT - 2020 Conference Proceedings
- [2]. Using GSM &GPS Technology for Accident Detection and Reporting System, International Journal of Electrical and Electronics Research ISSN 2348-6988 (online) Vol. 2, Issue 4, pp: (122-127), Month: October - December 2018, Available at: www.researchpublish.com, Page | 122 Research Publish Journals, Smart Helmet
- [3]. Manjesh N, Prof. Sudarshan Raj, International Journal of Electrical and Electronics Research ISSN 2348-6988 (online) Vol. 2, Issue 4, pp: (122-127), Smart Helmet Using GSM &GPS Technology for Accident Detection and Reporting System, Month: October - December 2018, Available at: www.researchpublish.com, Page | 122 Research Publish Journals,
- [4]. K. Sudarsan1, P. Kumaraguru Diderot, Helmet for Road Hazard Warning with Wireless Bike Authentication and Traffic Adaptive Mp3 Playback International Journal of Science and Research ( IJSR ) ISSN ( Online ): 2319 - 7064, , Volume 3 Issue 3, March 2018 Paper ID: 020131130 www.ijsr.net
- [5]. Manasi Penta, Monali Jadhav and Priyanka Girme, BIKE RIDER'S SAFETY USING HELMET, ISSN 2319 – 2518 www.ijeetc.com, Vol. 4, No. 2, April 2020