IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 13, May 2023

Design and Implementation of IoT Based Smart Helmet for Road Accident Detection

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Abstract: *A smart helmet is a special idea, which makes motorcycle driving safer than before. This is implemented using GSM & GPS technology. The working of this smart helmet is very simple; vibration sensors are placed in different places of helmet where the probability of hitting is more, which are connected to microcontroller board. and Reporting System authors describes Therefore, when the rider crashes and the helmet hit the ground, these sensors sense and gives to the microcontroller board, then controller extract GPS data using the GPS module that is interfaced to it. When the data exceeds minimum stress limit then GSM module automatically sends message to ambulance or family members.*

Keywords: Smart Helmet, Internet of Things (IoT), GSM Technology, Accident Detection, Alcohol Detection, Bike Rider's Safety.

REFERENCES

[1] Rasli, M.K.M. A., Madzhi, N.K. & Johari, J.(2010). Introduction. Smart helmet with sensors for accident prevention.29.303-306.doi: 10.1109/ICEESE.2013.6895036
[2] Mustafa, M.N. (2010)."OVERVIEW OF CURRENT ROAD SAFETY SITUATION IN MALAYSIA, " Highway Planning Unit Road Safety Section Ministry of Works.
[3] Chun-Lung Chiu; Chen, Y.-T.; You-Len Liang; Ruey-Hsun Liang; " Optimal Driving Efficiency Design for the Single-Phase Brushless DC Gear Motor, " Magnetics, IEEE Transactions on, vol.46, no.4, pp.1123- 1130, April 2010.
[4] Thamrin N, M.; Rosman, R.; Sarmawi, D.S. " Design and analysis of wireless controller panel using RF module", Industrial Electronics and Applications (ISIEA), 2011 IEEE Symposium on, vol., no., pp.376-381, 25-28 Sept. 2011.
[5] Anon, (2018). [online] Available at: http://forefront.io/a/beginners-guide-to-Arduino/ [Accessed 7 May 2018].
[6] Cooking-hacks.com. (2018). Where is my car? Realtime GPS+GPRS Tracking of Vehicles using Arduino. [online] Available at: https://www.cooking-hacks.com/projects/arduino-realtime-gps-gprs-vehicle-tracking [Accessed 7 May 2018].
[7] Varshney, Abhishek. "Smart Helmet." International Journal for Research in Applied Science and Engineering Technology, V, no. IV, 2017, pp. 1027–103, doi:10.22214/ijraset.2017.41
[8] World Health Organization.2020. Road Traffic Injuries. [ONLINE] Available at: https://www.who.int/news-room/fact-sheets/detail/road-