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Smart Helmet for Accident and Alcohol Detection using GSM and GPS Technology

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Abstract: *In our daily life, the number of vehicles especially two-wheelers are gradually increasing and the number of two-wheelers used by students is also high and that becomes a concern for their parents to look after their children's safety while driving .Here, the Smart Helmet for Accident and Alcohol Detection Using GSM and GPS Technology was suggested. This device automatically detects if a driver is wearing a helmet and has non-alcoholic breath while they are on the road. This device consists of a helmet transmitter and a bike receiver. A switch is used to guarantee that the helmet is on the head. The switch's ON state ensures that the helmet is properly positioned .A gas sensor is positioned near the driver's lips in the helmet to detect the presence of alcohol. The data to be conveyed is encoded with an RF encoder and broadcast through a radio frequency transmitter. The data is received by the bike's receiver, which decodes it using an RF decoder. If any of the two requirements is violated, the engine should not start.*

Keywords: Smart Helmet, Accident Prevention, Alcohol Detection, GSM, GPS, ON, RF transceiver, RF encoder

REFERENCES

[1]. Sayan Tapadar, Arnab Kumar Saha, Dr. Himadri Nath Saha, Shinjini Ray," Accident and Alcohol Detection in Bluetooth enabled Smart Helmets for otorbikes"978-15386-4649-6/18/$31.00 ©2018 IEEE.
[2]. Ms. M. Rekha, Ms. K. Bharathi, Ms. Cynthia," Drink and Drive Detection System" ©2014-17, IJIRAE.
[3]. P. Tharangai Thamil, S. Vanitha," Survey on Rash Driving Detection using Acceleration and Orientation Sensors" ISSN 2278 – 0882 Volume 4, Issue 3, March 2015.
[4]. Amrutha Madhusan, Lavanya Viswanathan, Vaishnavi Ravindran, Dr. Shanta
[5]. Rangaswamy," A Survey on Road Accident Detection and Reporting" Volume 7, Issue 4, April 2016.
[6]. C. Prabha, R. Sunitha, R. Anitha," Automatic Vehicle Accident Detection and
[7]. Messaging System using GSM and GPS Modem", Volume 3, Issue 7, July 2014 DOI:10.15662/ijareeie.2014.0307062.