## **IJARSCT**

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

JARSCT onal Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.301 Volume 3, Issue4, May 2023

## Driver Drowsiness Alert Detection for Vehicle Acceleration using Machine Learning

Asmita Kamble, Rushikesh Paigavan, Aniket Kute, Om Gite, Anisha Gholap

Department of Computer Engineering Sinhgad Institute of Technology and Science, Narhe, Pune, India

Abstract: Since by deploying this method, we aim to reduce the number of accidents driven on by driver drowsiness and so raise the safety of drivers. Based on visual data and artificial intelligence, this technology manages the computerised detection of driving sleepiness. To be able to measure PERCLOS (% of eye closure) using Softmax for neural transfer function, we identify, display, and monitor both the driver face and eyes. Alcohol pulse detection is also used to find out if a person is normal or abnormal. Due to extended driving times and boredom in busy roadways, driver tiredness is one of the primary variables in traffic accidents, particularly among drivers of big vehicles (such as buses and heavy trucks).

**Keywords:**Driver Drowsiness Detection, Vehicle Safety, Machine Learning, Acceleration, Alert System, Image Processing, Computer Vision, Deep Learning.

## REFERENCES

- [1] Azar, A. T., Hasan, M. A., &Alnuweiri, H. M. (2019). A review of driver drowsiness detection systems. Journal of Advanced Transportation, 2019.
- [2] Kalra, P., & Sharma, S. (2021). A review on driver drowsiness detection using machine learning and deep learning. Journal of Ambient Intelligence and Humanized Computing, 12(4), 3757-3778.
- [3] Liu, Y., Zhang, Y., Wang, Z., Liu, X., & Zhang, H. (2019). A review of driver drowsiness detection systems based on physiological signals and machine learning. Journal of Advanced Transportation, 2019.
- [4] Rathore, M. M., Paul, A., Chahl, J., & Jeon, M. (2020). Driver drowsiness detection systems: A review. Sensors, 20(17), 4916.
- [5] Li, Y., Wang, D., Li, X., & Chen, X. (2020). A review of driver drowsiness detection based on machine learning and computer vision. Frontiers in Robotics and AI, 7, 30.
- [6] Lin, Y., Zhu, W., Li, Z., & Liu, X. (2021). Driver drowsiness detection using machine learning: A comprehensive review. Applied Sciences, 11(3), 1317.

DOI: 10.48175/IJARSCT-9867

