

Survey on Anti Sleeping Glasses

Namithadevi N N¹, Chandana K², Rakshith H K³, Nisarga V Gowda⁴, Krupa K⁵

Faculty, Department of Computer Science and Engineering¹

Student, Department of Computer Science and Engineering^{2,3,4,5}

Vidya Vikas Institute of Engineering and Technology, Mysuru, Karnataka, India

namithadevi19@gmail.com¹, chandana8748@gmail.com², rakshithhk006@gmail.com³

nisargagowda018@gmail.com⁴, krupakumar2002@gmail.com⁵

Abstract: *An innovative solution to address the critical issue of drowsiness-related accidents by introducing Anti-Sleeping Glasses (ASG) integrated with artificial intelligence (AI) technology. The proposed system aims to enhance user safety by detecting signs of drowsiness and alerting individuals in real-time, thus preventing potential accidents caused by impaired alertness. The drowsiness alert for driver project marks a significant step toward creating a safer and more secure driving environment. By leveraging cutting-edge technology, this system has the potential to make a lasting impact on road safety, emphasizing the importance of proactive measures in preventing accidents caused by driver fatigue. The successful implementation of such technology has the potential to save lives, reduce injuries, and minimize the economic impact associated with road accidents.*

Keywords: Accident prevention, Driver Safety, Road accidents, Drowsiness detection, Road safety, Wearable safety devices

REFERENCES

- [1] Real Time Driver Drowsiness Detection and Alert System done by Prof. Junfeng, Xiaopeng Li, Yuting Jiang, Weiwei Guo, Yifan Chen, Shuiping Wang in the year 2022
- [2] Smartphone-Based Driver Drowsiness Detection Using Eye Movement Analysis in the year 2023. This done by Md. Tanvir Arafat, Md. Tanvir Islam, Md. Mahub Alam, Mohammad Abdullah Al Mamun, and Md. Saiful Islam.
- [3] A Survey on AI-Driven Wearable Devices for Driver Drowsiness Detection in the year 2021. This is done by Md. Tanvir Arafat in the year 2022
- [4] Amrutha C.V, C. Jyotsna, Amudha J: "Deep Learning Approach for Suspicious Activity Detection from Surveillance Video" Second International Conference on Innovative Mechanisms for Industry Applications (ICIMIA 2020) IEEE Xplore Part Number: CFP20K58-ART; p:335- 339.
- [5] Sathyajit Loganathan, Gayashan Kariyawasam, Prasanna Sumathipala: "Suspicious Activity Detection in Surveillance Footage" 2019 International Conference on Electrical and Computing Technologies and Applications (ICECTA).
- [6] N. Bordoloi, A. K. Talukdar and K. K. Sarma, "Suspicious Activity Detection from Videos using YOLOv3" 2020 IEEE 17th India Council International Conference (INDICON), 2020, pp. 1-5, doi: 10.1109/INDICON49873.2020.9342230.
- [7] Salem, Fathia G. Ibrahim, Reza Hassanpour, Abdussalam Ali Ahmed, and Aisha Douma. "Detection of suspicious activities of human from surveillance videos." In 2021 IEEE 1st International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering MI-STA, pp. 794-801. IEEE, 2021.
- [8] Bhambri, Pankaj, Sachin Bagga, Dhanuka Priya, Harnoor Singh, and Harleen Kaur Dhiman. "Suspicious human activity detection system." Journal of IoT in Social, Mobile, Analytics, and Cloud 2, no. 4 (2020): 216-221.
- [9] Selvi, Esakky, Malaiyalathan Adimoolam, Govindharaju Karthi, Kandasamy Thinakaran, Nagaiah Mohanan Balamurugan, Raju Kannadasan, Chitapong Wechtaisong, and Arfat Ahmad Khan. "Suspicious actions detection system using enhanced CNN and surveillance video." Electronics 11, no. 24 (2022): 4210.
- [10] Ahamad, Shahanawaj, B. Bhaskara Rao, K. Srikanth, V. P. Gopal, Pritika Mehra, and Malik Bader Alazzam. "Machine learning approach to enhance performance of suspicious activity detection system." In AIP Conference Proceedings, vol. 2587, no. 1. AIP Publishing, 2023. 19

- [11] Rachana Gugale, Abhiruchi Shendkar, Arisha Chamadia, Swati Patra, Deepali Ahir, "Human Suspicious Activity Detection using Deep Learning", International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056, Volume: 07 Issue: 06 | June 2020
- [12] Vedant Saikhede, Kiran Shende, Yuvraj Darekar, Hemant Thorat, Prof. Snehal. S. Shinde, "Deep Learning Approach for Suspicious Activity Detection from Surveillance Video", International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 10 Issue: 12 | Dec 2023
- [13] Sonali Suryavansh, Rohit Shinde, Sarthak Kathe, Akash Phad, Prof. C.H. Patil, "Using Surveillance Video Detection of Suspicious Activity Based on Deep Learning" e-ISSN: 2582- 5208, International Research Journal of Modernization in Engineering Technology and Science Volume:05/Issue:05/May-2023
- [14] Prof. Malan Sale, Arvind Patkal, Harshal Mahale, Jyoti Lavhale, Sunayana Apsingekar, "Deep Learning Approach for Suspicious Activity Detection from Surveillance Video", International Journal of Advanced Research in Science, Communication and Technology (IJAR SCT), Volume 2, Issue 4, May 2022
- [15] Tejashri Subhash Bora, Monika Dhananjay Rokade, "Human Suspicious Activity Detection System Using Cnn Model for Video Surveillance", IJAR IIE-ISSN(O)-2395-4396, Vol-7 Issue: 3 2021
- [16] Joey Tianyi Zhou, Jiawei Du, Hongyuan Zhu, Xi Peng, Rick Siow Mong Goh, AnomalyNet: An Anomaly Detection Network for Video Surveillance, 2019.
- [17] Monika D. Rokade and Tejashri S. Bora, "Survey on Anomaly Detection for Video Surveillance" 2021 International Research Journal of Engineering and Technology (IRJET).
- [18] Driver Drowsiness Detection System – An Approach by Machine Learning Application: Agbeer Singh, Ritika Kanojia, Rishika Singh, Rishita Bansal, Sakshi Bansal in the year 2022
- [19] Sleep sensing and alerting system for drivers by Ms. V. Manochitra in the year 2022.
- [20] A systematic review on detection and prediction of driver drowsiness by Md. Ebrahim Shaik in the year 2023.