

Smart Vehicle Driving System (SVDS)

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Abstract: *The Smart Vehicle Driving System (SVDS) is an innovative solution aimed at improving road safety by monitoring and analysing driver behaviour in real-time. This system leverages advanced sensor technology, machine learning algorithms, and vehicle control systems to detect risky behaviours such as rash driving, drowsiness, alcohol consumption, and smoke presence inside the vehicle. The SVDS provides timely alerts and interventions, helping to mitigate the risks of accidents and ensuring safer driving conditions.*

The integration of artificial intelligence (AI) and deep learning techniques enhances the system's ability to recognize subtle signs of impaired driving, making real-time risk assessment more efficient. Extensive testing and simulations have shown a significant reduction in accidents caused by human error. This paper details the system's design, implementation, and performance evaluation, highlighting its potential to significantly enhance road safety and reduce fatalities on the road.

Keywords: Smart Vehicle, Driver Monitoring, Road Safety, Real-Time Detection, Accident Prevention

