

(54) Title of the invention : DRIVER ASSISTANCE BY OBJECT DETECTION DURING NIGHT USING DEEP NEURAL NETWORKS

<p>(51) International classification :G06K0009000000, G08G0001160000, B60Q0009000000, G06N0003040000, B60W0030090000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)V PURANDHAR REDDY Address of Applicant :Professor , Department of ECE, Audisankara College of Engineering and Technology (Autonomous),GUDUR ----- 2)Dr. Goddati Venkata Narayana 3)Dr. P. Janardhan Saikumar 4)K S Ranjith 5)P. Sree Lakshmi 6)SHAIK MOULA 7)Mesa. Kezia Aruna Jyothi 8)Dr. Kommalapati Rajesh 9)M C Shanker Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)V PURANDHAR REDDY Address of Applicant :Professor , Department of ECE, Audisankara College of Engineering and Technology (Autonomous),GUDUR ----- 2)Dr. Goddati Venkata Narayana Address of Applicant :Professor Department of EEE Audisankara Institute of technology Gudur-524101 GUDUR ----- 3)Dr. P. Janardhan Saikumar Address of Applicant :Professor Department of ECE Audisankara Institute of technology Gudur-524101 Gudur ----- 4)K S Ranjith Address of Applicant :Associate Professor Department of CSE Audisankara Institute of technology Gudur-524101 Gudur ----- 5)P. Sree Lakshmi Address of Applicant :Associate Professor Department of ECE Audisankara Institute of technology Gudur-524101 gudur ----- 6)SHAIK MOULA Address of Applicant :Assistant Professor Department of ECE Audisankara Institute of technology Gudur-524101 Gudur ----- 7)Mesa. Kezia Aruna Jyothi Address of Applicant :Associate Professor Department of ECE Audisankara Institute of technology Gudur-524101 gudur ----- 8)Dr. Kommalapati Rajesh Address of Applicant :Associate Professor Bapatla Engineering College Bapatla-522102 gudur ----- 9)M C Shanker Address of Applicant :Associate Professor Department of ECE Audisankara Institute of technology Gudur-524101 gudur -----</p>
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(57) Abstract :
Vehicle accidents are caused by driver error commonly, by utilizing the Advanced Driver Assistance Systems (ADAS) accidents can be reduced. General safety ADAS applications include Pedestrian detection/avoidance, Lane departure warning/correction, Traffic sign recognition, and Automatic emergency braking, and Blind spot detection. Driver to detect pedestrian and vehicle is a complex task under opposite vehicle high front light exposure during night vision. In this proposed work, object detection techniques using deep neural network is used to identify the pedestrians and vehicles. The database is collected in highways, streets, main connected roads between towns in Indian roads. The collected database is used for training You only look once (YOLO) deep neural network. Experimental results show the proposed pedestrian and vehicle detection is accurate and robust.

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