

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511089199 A

(19) INDIA

(22) Date of filing of Application :18/09/2025

(43) Publication Date : 10/10/2025

(54) Title of the invention : AUTONOMOUS TRAFFIC MANAGEMENT SYSTEM

(51) International classification	:G08G0001017000, G08G0001010000, G08G0001040000, G06F0003010000, G08G0001054000	(71) Name of Applicant : 1)Chitkara University Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India 2)Chitkara Innovation Incubator Foundation
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)Dr. Ayush Dogra
(33) Name of priority country	:NA	
(86) International Application No	:	
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

An autonomous traffic management system, comprising a set of ANPR cameras 101 configured on traffic signal poles 102 facing oncoming traffic to capture images of license plates of passing vehicles, a combination of LiDAR sensor 103 and a radar sensor 104 for 3D scanning of vehicles to detect real-time traffic violations, a plurality of road studs integrated in road surfaces along with optical liquid-level sensor for monitoring water clogging, a motorized iris-type opening 106 configured underneath each stud 105 for draining water into underground storage units 114 for future road cleaning use, a traffic density monitoring module for detecting vehicle density and behavior, synchronized with emergency vehicle's GPS to detect approaching emergency vehicles, a plurality of vibrating motors 108 to activate and generate haptic feedback to nearby vehicles when an emergency is detected, and a set of pressure sensors 109 integrated in the middle lane to confirm clearance of lane.
No. of Pages : 25 No. of Claims : 10