

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511099743 A

(19) INDIA

(22) Date of filing of Application :15/10/2025

(43) Publication Date : 05/12/2025

(54) Title of the invention : AN AI-GUIDED FRAMEWORK FOR SMART VEHICLE CRASH PREVENTION SYSTEMS

(51) International classification	:G08G0001160000, G08G0001096700, G06N0003080000, G08G0001010000, B60R0021013400	(71) <b>Name of Applicant :</b> <b>1)NOIDA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b> Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
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(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 :

The invention discloses an AI-guided framework for smart vehicle crash prevention integrating a sensor input module (101), data fusion engine (102), AI predictive model (103), decision-making unit (104), automated control actuator (105), and driver alert interface (106). The framework predicts collision risks using deep learning, provides timely alerts, and autonomously intervenes to prevent crashes. With multimodal sensing, adaptive decision-making, and modular architecture, the invention ensures enhanced vehicular safety under diverse road conditions while supporting retrofitting and autonomous platform integration.

No. of Pages : 15 No. of Claims : 6