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REVIEWER'S REPORT

Manuscript No.: IJAR-56439

Title: Design, Development and Experimental Validation of a Hybrid Sensor Fusion Based Radar Detection System with Integrated RTC and Multi-Level Alert Mechanism

Recommendation:

- Accept as it is
- Accept after minor revision.....**
- Accept after major revision
- Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			x	
Techn. Quality		x		
Clarity		x		
Significance		x		

Reviewer Name: Dr. Hari Prashad Joshi

Detailed Reviewer's Report

Decision: Minor Revision Required

This manuscript presents a well-structured and practically implemented hybrid radar detection system that effectively combines ultrasonic and Doppler sensors with camera verification and multi-level alert mechanisms. The work demonstrates sound engineering principles, with clear objectives, systematic architecture, and convincing experimental validation within the 0-50 cm range. The sensor fusion approach shows measurable improvement over single-sensor systems (11-18% accuracy improvement, 8-14% false alarm reduction). However, several minor revisions are needed before acceptance. The manuscript contains grammatical errors and typographical issues throughout that require careful proofreading. The terminology is inconsistent regarding the "spark module" versus "relay booster" – clarify whether these are the same component or different ones. The projectile/missile activation references (sections 12.1, 13.3) appear without explanation and should be removed or properly contextualized, as they raise safety concerns not addressed elsewhere. The RTC module mentioned in the title and comparison section is not adequately described in the system architecture or implementation. Table 1 requires proper formatting and unit clarification. These revisions will strengthen an otherwise sound and practically valuable contribution to low-cost sensor fusion systems for short-range monitoring applications.