

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/05/2026

(21) Application No.202641065481 A

(43) Publication Date : 05/06/2026

(54) Title of the invention : ARTIFICIAL INTELLIGENCE DRIVEN ADAPTIVE DECISION SUPPORT SYSTEM FOR CONTEXT-AWARE, RISK-GOVERNED AND EXPLAINABLE RECOMMENDATION CONTROL

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(32) Priority Date	:NA	
(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 :

[040] The present invention relates to an artificial intelligence driven adaptive decision support system for generating context-aware, risk-governed and explainable recommendations. The system comprises a data ingestion module for receiving heterogeneous input data, a contextual profiling module for generating a live context profile, an adaptive intelligence engine for scoring decision options, a risk-governance module for controlling recommendation release, an explainability module for producing a recommendation explanation, a feedback learning module for adaptive updating, and a decision output interface for presenting controlled decision support. The system dynamically modifies decision weightings according to urgency, risk, confidence, resource availability, user role, operational state and historical outcomes. The risk-governance module prevents unreliable recommendations by applying confidence and risk thresholds. The explainability module provides supporting factors, contrary factors, confidence score, risk score and context-change reason. The invention improves decision reliability, transparency, auditability and adaptive response in changing operational environments. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 24 No. of Claims : 10