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(51) International classification	:G06N 5/04, G06F 21/57, G06N 5/02, G06N 20/00, H04L 9/32	(71)Name of Applicant : <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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(57) Abstract :

An explainable artificial intelligence framework for trusted decision making systems is disclosed. The framework includes an input acquisition module (101), a feature preparation module (102), a predictive reasoning engine (103), an explanation synthesis engine (104), a trust evaluation engine (105), an audit trace manager (106), a policy validation module (107), and a presentation interface (108). The framework generates a decision output with interpretable rationale, computes a composite trust index, stores reproducible trace records, and issues a trusted recommendation or escalation signal for regulated and risk sensitive operational environments.

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