

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511106439 A

(19) INDIA

(22) Date of filing of Application :03/11/2025

(43) Publication Date : 19/12/2025

(54) Title of the invention : AN AI-BASED TOOL FOR AUTOMATED NETWORK FAILURE PREDICTIONS

(51) International classification	:H04N 21/475, H04N 21/472, H04N 21/482, H04N 21/485, G06F 8/38	(71) Name of Applicant : 1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India (72) Name of Inventor : 1)Dr. PREM SAGAR SHARMA 2)NEETU KUMARI RAJPUT
(31) Priority Document No	:NA	
(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 :

The present invention discloses an AI-based tool (100) for automated network failure predictions, comprising a data input module (101), preprocessing unit (102), AI analytics engine (103), prediction module (104), and user interface (105). By integrating telemetry and sensor data, the invention predicts failures with high accuracy, reducing downtime and optimizing maintenance. Its adaptive learning mechanism (106) ensures continuous improvement, while the visualization interface (105) provides actionable insights to administrators. The invention offers a proactive, scalable, and cost-effective solution for intelligent network reliability management.

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