

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511099521 A

(19) INDIA

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

(43) Publication Date : 05/12/2025

(54) Title of the invention : AN AUTOMATED SYSTEM FOR NETWORK PACKET LOSS PREDICTION

(51) International classification	:G06N0020000000, H04L0043080000, H04L0043082900, H04L0001000000, G06N0005010000	(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
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)PUNIT KUMAR
(33) Name of priority country	:NA	2)IBRAR AHMED
(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 automated system for network packet loss prediction comprising a predictive engine (101), a monitoring module (102), a decision-making unit (103), and an adaptive feedback module (104). The predictive engine (101) applies machine learning to forecast packet loss probabilities using historical and real-time data. The monitoring module (102) captures telemetry metrics such as latency, jitter, and retransmission statistics. The decision-making unit (103) executes preventive actions like rerouting and bandwidth optimization. The adaptive feedback module (104) refines predictions continuously, ensuring robust, proactive, and reliable communication networks.

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