

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202611037229 A

(19) INDIA

(22) Date of filing of Application :26/03/2026

(43) Publication Date : 08/05/2026

(54) Title of the invention : AN AI-BASED NETWORK TRAFFIC PREDICTION AND ROUTING SYSTEM

(51) International classification	:H04L 12/26, H04L 12/24, H04L 12/721, H04L 12/56, H04L 12/801	(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. RITESH KUMAR SINGH 2)Dr. HITESH SINGH
(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 :

An AI based network traffic prediction and routing system comprises a telemetry acquisition module (101), a preprocessing and feature generation module (102), a prediction engine (103), a route evaluation engine (104), a policy manager (105), a routing controller (106), and a model feedback unit (107) associated with a managed network infrastructure (108). Network telemetry is transformed into predictive traffic estimates, and candidate paths are scored using forecast congestion, delay tendency, and policy constraints. The selected routes are enforced proactively to improve load distribution, reduce congestion incidence, and enhance service continuity.

No. of Pages : 24 No. of Claims : 7