

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511106461 A

(19) INDIA

(22) Date of filing of Application :04/11/2025

(43) Publication Date : 26/12/2025

(54) Title of the invention : A COMPUTER SYSTEM FOR OPTIMIZED DATABASE QUERY PERFORMANCE

(51) International classification	:G06F 9/451, G06F 9/455, F16N 35/00, G06F 16/25, F02B 21/00	(71) <b>Name of Applicant :</b> <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 (72) <b>Name of Inventor :</b> <b>1)VIKRANT MALIK</b> <b>2)ABDUL KHALID</b>
(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 invention relates to a computer system for optimized database query performance, comprising a Query Input Module (101), Adaptive Query Optimizer (102), Intelligent Cache Manager (103), Machine Learning Workload Predictor (104), Execution Engine (105), and Storage Interface (106). The system integrates adaptive query planning, intelligent caching, and predictive analytics to improve query efficiency. By dynamically adjusting execution plans and forecasting workloads, the invention ensures reduced latency, minimized resource consumption, and enhanced scalability across relational, NoSQL, and distributed environments.

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