

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511043116 A

(19) INDIA

(22) Date of filing of Application :04/05/2025

(43) Publication Date : 23/05/2025

(54) Title of the invention : A REINFORCEMENT LEARNING MODEL FOR DYNAMIC TASK ALLOCATION IN CLOUD SYSTEMS

(51) International classification :G06F 9/50, G06N 20/00, H04L 47/83
(86) International Application No :NA
Filing Date :NA
(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

(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. -----
Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
1)RAHUL KUMAR SHARMA
Address of Applicant :Department of Computer Science & Engineering, Noida Institute of Engineering & Technology, Greater Noida. Greater Noida ----- ----

(57) Abstract :

A reinforcement learning model (100) is disclosed for dynamic task allocation in cloud systems. The system includes a reinforcement learning agent (101), environment module (102), reward evaluator (103), and task allocator (104) for routing tasks (105) to cloud nodes (109). The model adapts in real-time, minimizes latency, reduces SLA violations, and optimizes resource usage using multi-objective dynamic learning.

No. of Pages : 13 No. of Claims : 5