

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202611036683 A

(19) INDIA

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

(43) Publication Date : 08/05/2026

(54) Title of the invention : A DISTRIBUTED COMPUTING FRAMEWORK FOR ADAPTIVE WORKLOAD BALANCING

(51) International classification	:G06F 9/50, G06F 9/48, G06F 9/46, H04L 12/24, H04L 29/08	(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 : 1)VIVEK RANJAN
(32) Priority Date	:NA	2)Dr. DIVYA SINGHAL
(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 :

A distributed computing framework for adaptive workload balancing includes a telemetry agent layer (101) deployed with compute nodes (102), a telemetry aggregation module (103), a state normalization repository (104), a balancing engine (105), a policy manager (106), a migration controller (107), a task dispatcher (108), and a feedback analyzer (109). Runtime indicators are normalized to generate composite load scores and destination suitability scores for predictive task placement and controlled redistribution. Policy-compliant execution improves utilization spread, reduces congestion, and stabilizes service performance across heterogeneous distributed infrastructure.

No. of Pages : 22 No. of Claims : 7