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(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)MANISH CHAUDHARY
2)ANAM RAJPUT

(57) Abstract :
A multi-agent coordination platform is disclosed comprising an orchestration core (101), a task decomposition module (102), a shared state fabric (103), an agent registry (104), a collaboration policy engine (105), an interaction manager (106), a reward aggregation module (107), an adaptation controller (108), and heterogeneous agents (110). The platform decomposes objectives into subgoals, selects agent participation using collaborative reinforcement learning, regulates inter-agent exchanges, resolves conflicts, and refines coordination policies from execution feedback. The arrangement improves adaptive task allocation, coordination stability, and scalable cooperative execution in dynamic computational environments.

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