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(57) Abstract :
The invention discloses a robotic simulation platform for smart warehouse logistics management. The system comprises a warehouse digital twin (101), robotic agents (102), a simulation engine (103), an AI-based logistics planner (104), a system integration layer (105), and a visualization dashboard (106). The platform enables realistic modeling of warehouse environments, predictive optimization of logistics workflows, seamless integration with warehouse management systems, and safe validation of robotic strategies. Experimental validation demonstrates improvements in order fulfillment time, safety, and energy efficiency, making it a scalable solution for modern warehouses.

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