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(57) Abstract :
The invention discloses an AI-based framework for real-time disaster response optimization comprising a data acquisition module (101), predictive analytics engine (102), optimization engine (103), communication interface (104), resource allocation unit (105), and visualization dashboard (106). The framework integrates heterogeneous data sources, applies predictive modeling, and dynamically allocates resources to optimize emergency response. Experimental validation demonstrates improved predictive accuracy, reduced response times, and enhanced situational awareness, making the invention a scalable and robust solution for managing diverse disaster scenarios effectively.

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