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(57) Abstract :
An energy-aware dynamic task scheduling system for IoT sensor networks comprises a sensor node (101), an energy monitoring unit (102), a local task scheduler (103), and a communication module (104). The invention enables real-time energy-based task allocation, predictive energy forecasting, cooperative offloading, and adaptive sensing intervals. The system improves energy efficiency and extends the network's lifetime while ensuring reliable task execution in diverse IoT environments.

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