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(57) Abstract :

The invention discloses an IoT-based system (100) for smart industrial hazard detection, comprising a sensor array (101), IoT gateway (102), cloud server (103), hazard detection engine (104), dashboard interface (105), and automated alerting unit (106). The system provides continuous monitoring, predictive hazard analysis, real-time alerts, and integration with industrial safety protocols. It ensures proactive detection of gas leaks, fire, vibrations, and chemical spills, thereby enhancing workplace safety, reducing accident risks, and enabling compliance with safety regulations.

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