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(57) Abstract :
The invention discloses an IoT-based device (101) for smart city pollution management. It integrates air quality sensors (201), water quality sensors (204), and noise monitoring sensors (205) with a microcontroller (202) and communication module (203). Data is transmitted to a cloud analytics unit (206) for predictive forecasting (207). The control interface (208) enables integration with traffic systems (209) and public alerts (210). A renewable energy unit (212) powers the device sustainably. This invention provides comprehensive, real-time, and cost-effective pollution management for smart cities.

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