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(57) Abstract :
The present invention relates to an integrated framework combining cloud computing and Internet of Things (IoT) technologies to promote environmental sustainability. This framework gathers, handles, and evaluates data from a range of environmental sensors and devices placed throughout diverse ecosystems. Leveraging cloud computing for data storage and advanced analytics, the system provides real-time insights and automated responses to environmental changes. The integrated approach supports sustainable resource management, pollution control, and ecological conservation efforts. Key components include an IoT sensor network for comprehensive environmental monitoring, edge computing nodes for local data processing, cloud computing infrastructure for secure data storage and advanced analytics, an automated response system for intelligent actions, and a user-friendly interface for real-time monitoring and reporting. This invention offers a robust solution for enhancing environmental sustainability through data-driven decision-making and automated response capabilities.

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