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Smart Village: An IOT Based Digital Transformation

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Abstract: *Almost 46% of the world's population resides in a rural landscape. Smart villages, alongside smart cities, are in need of time for future economic growth, improved agriculture, better health, and education. The smart village is a concept that improves the traditional rural aspects with the help of digital transformation. The smart village is built up using heterogeneous digital technologies pillared around the Internet-of-Thing (IoT). There exist many opportunities in research to design a low-cost, secure, and efficient technical ecosystem. This article identifies the key application areas, where the IoT can be applied in the smart village. The article also presents a comparative study of communication technology options. The proposed systems will eventually regulate automatically by operating during off-peak energy hours and connect to sensors to monitor occupancy, waste collection system, lighting conditions, and also optimized irrigation management for those attributes are incorporated. This paper will address and discuss the technical solutions for the energy management, smart irrigation system and waste management which can be adopted in the rural development mission.*

Keywords: IOT, Smart Village, Waste Management System, Sensor, Microcontroller

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