Intelligent system for fault detection of phase failure and temperature

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Abstract:

Recently, most countries began utilizing Electronic governance (EG), which is the application of intelligence technique (IT) for delivering government services, exchange information, communicate transactions, and integrate various stand-alone systems between governments and citizen. The lack of electricity (from unstable power supply) tends to severely interrupt e-governance, as EG needs power in 24 hours per day. The phase failure, over-voltage, and frequency instability can result in the lack of electricity. This paper details the design and implementation of an intelligent fault detection system that controls the feeding power for IT equipment by calling the engineer or utilizing another power source. The system was implemented based on the Global System for Mobile communication (GSM)-sim900and Arduino microcontroller, where the Arduino code is used to implement the software. The result show that the system will try feeding the IT system the power via other power sources line until the service engineers arrive to address the problems. The intelligent system improves the reliability and stability of EG, which improves its performance and the delivery of public services to citizens.

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