Detecting Powerline Noise with Low-Cost Noise Sensors for Power Outage Mitigation

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Abstract:
Relatively low-cost noise sensors can be utilized to detect for aberrant powerline noise, which is an early indicator and warning of potential power reliability and stability issues. By taking preemptive action, power outages may be avoided. Accordingly, the practicality as pertains to the utilization of low-cost noise sensors, segueing to scalability and extensibility, is examined. The strategic placement of sensors at key distribution poles has been examined previously. This paper examines how low-cost noise sensors provide an opportunity for comprehensive coverage and more likely detection of certain powerline noise aberrations at the "edge" against a set of compiled heuristics.

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