

## ABSTRACT

Research Title : Alarming System for Dangerous Leakage Current Distribution transformer in Public Area via Digital Signal Processing  
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The research's purpose is to study, about the design a device and construct alarm system for dangerous leakage current distribution transformer in public area the real-time monitoring and alarm system by create an algorithm. Find leakage current Using linear regression and polynomial. Focused on using microcontroller to process for leakage current and level dangerous. Control the real-time monitoring and alarm system. The result found was that the device and system can measure leakage current in the range 1 - 200 mA. Can set to be alarm for leakage current from 30 - 200 mA. With an leakage current average error of less than 4 %. Moreover the system can also be use as a measure of level leakage current which was acceptable. And report in real-time that the work was good impressive Therefore, it can be implemented in practice.

Keywords : Leakage Current / Distribution Transformer / Alarm system