

**Hybrid Home Automation of Common Electronic Devices using Fog Computing with Data Analytics: A Philippine Set-Up**

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**Abstract**

The study developed a hybrid home automation system using fog computing that covers the design plan, specifications, and implementations of the convergence of IoT devices such as the IP-Based Closed-Circuit Television (CCTV), Access Control like Electronics Door Lock, Fire Detection and Alarm Systems (FDAS), and automatic lighting systems combined in one network infrastructure and managed by a central controller located in the fog layer at a hierarchical model. It focused on the design and development of hybrid home automation of common electronic devices with multiple systems and multiple brands in a single network infrastructure with data analytics specifically in Philippine settings. This study is considered as both descriptive and developmental which describes the system evaluation ISO using the Interoperability for IOT systems framework (ISO/IEC 21823-1:2019) based on Interoperability such as Transport, Syntactic, Behavioral, Policy, and Semantic Interoperability.

*Keywords:* Internet of Things (IoT), fog computing, Wi-Fi, Apps, Script, home automation