TITLE:

Exploring Machine Learning in IoT Smart Home Automation

Author:

Quadri Waseem, Wan Isni Sofiah Wan Din\*, Azamuddin Bin Ab Rahman, Kashif Nisar

Corresponding Author: sofiah@ump.edu.my

Faculty of Computing, Universiti Malaysia Pahang Al-Sultan Abdullah, Kuantan, Pahang, Malaysia. Professional Computing & Data, Science, Swinburne University of Technology, New South Wales, Australia.

Abstract:

The Internet of Things (IoT) has evolved in these years. Various types of organizations, industries, research domains and almost all types of intelligent future applications are utilizing the advantages of IoT. These applications include smart homes, smart cities, smart infrastructure smart communities, smart healthcare, smart agriculture and many more. "Smart Homes” has emerged as one the latest Internet of Things (IoT) applications known to automate household equipment’s using remote or automated functioning from remote locations to improve the quality of life for its inhabitants. For a smart home system to function effectively, the machine learning (ML) implementation must go beyond basic remote control and simple automation. To fully realize its potential and provide homeowners with tremendous and unexpected benefits, more research and development in the fields of machine intelligence and smart home automation are required. In this research work, we aim to traverse ML in IoT smart home automation by classifying the home automation applications. We propose a taxonomy of machine learning (ML) for smart homes based on its application. This research also includes related surveys and literature reviews along with open challenges and issues as well as future directions in detail.

Keywords:

Machine Learning, Smart Home, Automation, Applications

ACKNOWLEDGMENT

This research was fully funded by the UMP Research Grant Scheme under grant RDU220374 and Tabung Persidangan Dalam Negara (TPDN), UMP

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