

Build a network for Smart Building

S No.	Name of the paper	Author and Year	Summary
1	Efficient Rule Engine for Smart Building System	Yan Sun et al. Year: 2013	This paper proposes an efficient rule engine for intelligent building systems, which can guarantee a real-time response to events and a quick match between events and rules. A rule engine adaption scheme based on the rule matching feedback has been proposed, which can dynamically decrease the law matching overhead. Finally, implementing the proposed rule engine and verifying its effectiveness in the building system is done. A series of experimental results show that the proposed scheme can significantly improve the rule execution performance even with abundant data and an extensive ruleset.
2	Smart Building: Use of the Artificial Neural Network Approach for Indoor Temperature Forecasting	Nivine Attoue et al. Year: 2018	This paper proposed a methodology for developing an ANN-based model for forecasting indoor temperature. Relevance analysis and different input parameters could lead to a simplified forecasting model with restricted input parameters. Through its application to data collected in an old building, the data included outdoor and indoor temperature, humidity, and solar radiation. Analyses showed that two-hour facade temperature forecasting could be conducted with good precision using only the outdoor temperature and three-hour facade temperature history. Temperature sensors can use the methodology for measuring outdoor and indoor facade temperatures.
3	Efficient Sensor BIG Data Collection-Processing and Analysis in Smart Buildings	Andreas P. Plageras et al.	The technologies surveyed in this work present new and better solutions for making Smart Cities more efficient. With multiple sensors installed in a Smart Building, a better

		Year: 2017	monitoring system of the whole building is achieved. This paper surveyed the Internet of Things, Cloud Computing, Big Data and Sensors technologies to find their everyday operations and combine them. New methods to collect and manage sensors' data in an intelligent building have been proposed, which operate in an IoT environment. The solutions for organising and managing sensors' data in an intelligent building could lead to an energy-efficient smart building.
4	IoT network slicing on virtual layers of homogeneous data for improved algorithm operation in smart buildings	Roberto Casado-Vara et al. Year: 2019	This paper has investigated the inaccuracy problem of IoT network algorithms using heterogeneous input data. By introducing complex network and clustering techniques, this heterogeneous data can be virtualized into segmented virtual layers considering the clusters to transform it into homogeneous data that optimises the operation of the algorithms using the virtual segmentation technique. The algorithms guarantee an optimised performance considering the different areas of the topology of the IoT network. Finally, a case study result demonstrates the efficacy of the proposed IoT slicing method.
5	Sensing, controlling, and IoT infrastructure in smart building: a review.	Verma, A. et al. Year: 2019	Various features of Smart Building such as privacy and security, health services, safety and building management systems are improved because of IOT protocols in Smart Building Architecture. The main focus is on sensing, controlling the IoT infrastructure which enables the cloud clients to use a virtual sensing infrastructure using communication protocols.
6	Distblockbuilding: A distributed blockchain-based sdn-iot network for smart building management.	Rahman, Anichur, et al. Year: 2020	In this paper, architecture for a smart building system, including a control system and automatic approaches, is proposed. Blockchain technology is performed for transferring data within the smart building. A cluster head selection algorithm is also proposed in this paper to select the desired cluster head with the consideration of low energy consumption

			and fast head selection.
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