LITERATURE REVIEW REPORT OF RESEARCH PAPERS

Research Paper 1

***Title*: The Internet of Things (IoT): Applications, investments, and challenges for enterprises**

The IoT is recognized as one of the most important areas of future technology and is gaining vast attention from a wide range of industries. This article presents five IoT technologies that are essential in the deployment of successful IoT-based products and services and discusses three IoT categories for enterprise applications used to enhance customer value. There is still a paucity of studies on the social, behavioral, economic, and managerial aspects of the IoT. There are many challenges in IoT privacy , security ,data mining ,chaos challenges.

Research Paper 2

***Title*: IoT security: Review, blockchain solutions, and open challenges**

This paper present and survey major security issues for IoT and the popular security issues with regard to the IoT layered architecture. The security requirements for IoT along with the existing attacks, threats, and state-of-the-art solutions. IoT devices are insecure and incapable of defending themselves. This is due to mainly the constrained resources in IoT devices, immature standards, and the absence of secure hardware and software design, development, and deployment. It has been also discussed how the blockchain can be used to address and solve some of the most pertaining IoT security problems.

Research Paper 3

***Title*: Process Automation in an IoT–Fog–Cloud Ecosystem: A Survey and Taxonomy**

There is not enough study on automating components to deal with the big data and real-time tasks in the IoT–Fog–Cloud ecosystem. The study also discusses and suggests automating the tasks, methods, and processes of the ecosystem that still process the data manually. This survey paper studies the tasks and operations of processing data in three different layers and provided a perspective of how automating functions are processing tasks in the ecosystem. The motivation of automation discussion is on three challenges in the ecosystem: big data, heterogeneity, and Fog layer resiliency. The automatic components are data filtering, data transfer, context management, orchestration and collaboration, task scheduling, and task workflow.

Research Paper 4

***Title*: Internet of Things (IoT) for Next-Generation Smart Systems: A Review of Current Challenges, Future Trends and Prospects for Emerging 5G-IoT Scenarios**

The eventual aim of IoT is to introduce the plug and play technology providing the end-user, ease of operation, remotely access control and configurability. The paper also presents a detailed and extensive overview of the emerging 5G-IoT scenario. Fifth Generation (5G) cellular networks provide key enabling technologies for ubiquitous deployment of the IoT technology. The survey presented a review of the evolution of cellular wireless technologies making a case how 5G wireless technology improved upon its predecessor technologies, making ubiquitous deployment of IoT possible. High data transmission rates with low latency from the 5G-IoT nodes are vital for the cloudbased

application layer programs running state of the art artificial intelligence, machine and deep learning algorithms for efficient real-time data processing and prediction.

Research Paper 5

***Title*: IoT-Enabled Gas Sensors: Technologies, Applications, and Opportunities**

Ambient gas detection and measurement had become essential in diverse fields and applications, from preventing accidents, avoiding equipment malfunction, to air pollution warnings and granting the correct gas mixture to patients in hospitals. Gas leakage can reach large proportions, affecting entire neighbourhoods or even cities, causing enormous environmental impacts. A wide smart network can provide important data, as well as actions through these data, to reduce costs in numerous governmental and private sectors, allowing investment in other areas of necessity.