

Assignment11.docx

by Mohammad aladaileh

Submission date: 05-Dec-2023 08:09PM (UTC+0800)

Submission ID: 2248678475

File name: Assignment11.docx (19.68K)

Word count: 1465

Character count: 8384

Internet of Things

Abdulaziz Saad AlRasheed

1st Paper (Internet of Things (IoT): A Literature Review):

Summary: Reviews academic research papers, corporate white papers, expert conversations, and online databases to address IoT concept¹⁵. Additionally, the definitions, genotypes, prerequisites, traits, and aliases of the Internet of Things are the main topics of this study article. This paper's primary goal is to present an overview of the Internet of Things, key technologies, and their applications in day-to-day living. Nonetheless, this manuscript will provide new researchers with a thorough understanding for their research in the field of the Internet of Things (Technological GOD) and efficiently facilitate the acquisition of knowledge.

Analysis: This paper was written in 2015 which considered as an early stage for a the IoT, that led to a state where studying the real challenges of the applying the IoT on the ground.

Conflicts of Findings: Regarding the no universally accepted definition, is world widely known as IoT and it usually uses the typical infrastructure protocols.

2nd Paper (Internet of Things (IoT): A Literature Review):

Summary: Reviews the sensor networks and enabling technologies for the Internet of Things in an effort to give a thorough overview of the situation. It also outlines the IoT's six-layered architecture and highlights the main difficulties that surround it.

Analysis: The idea of the Internet of Things will soon be rapidly expanding on a very large scale due to the constantly developing IoT technologies. By integrating intelligence into the things around us, this new paradigm of networking will have an impact on every aspect of our lives, from smart health and environment monitoring to automated homes. We presented a clear architecture for the deployment of IoT and talked about its vision in this paper. Next, we discussed a few of the associated security risks as well as a number of enabling technologies. Lastly, we talked about a variety of IoT-related applications that are anticipated to improve our daily lives.

Conflicts of Findings: Studies are already being conducted to ensure its widespread adoption, but it is highly unlikely that technology will become ubiquitous unless the problems in its development are addressed and users are given confidentiality, privacy, and security. It will take a lot of work to address and provide solutions for the security and privacy risks associated with IoT deployment.

3rd Paper (Internet of Things (IoT): A Literature Review):

Summary: Reviews how the IoT will impact the human daily life when a good IoT architecture implemented.

Analysis: IoT has grown quickly in the last few years, and many enabling technologies have been put forth. The Internet of Things has emerged as the next big thing. Every available object is becoming intelligent. The Internet of Things offers a vast field of study. In the next years, a lot of new technologies will surface, elevating our understanding of the smart world to entirely new heights. IoT has a very bright future. Everything would be connected, including our cars and bills, enabling a better standard of living.

4th Paper (IoT Technology and Application):

Summary: The architecture of IoT, which consists of underlayer network distribution, convergence gateway access, interconnected network integration, and terminal user application, is suggested based on an analysis of IoT's top fundamental concepts. The key IoT technologies—hardware and software—have been discussed in relation to the architecture, which includes the network protocol layers, network control platform, and application terminal platform. A summary of the current issues with IoT in terms of standards, technologies, security, and applications has led to the presentation of six development concepts for the future of the internet of things.

Analysis: In certain cases, technological research and development is at the forefront of the global arena. China should therefore take advantage of this historic chance to work toward solving major issues as soon as feasible, mastering key technologies, creating an autonomous technology system, and producing outcomes with autonomous intellectual property rights and long-term competitiveness. development of associated industries.

Conflicts of Findings: In order for IoT to gradually emerge as a new engine to support China's economic takeoff in the information age, researchers should become more proficient with and gain ownership of independent intellectual property rights. As a result, the Internet of Things' explosive growth is crucial to bolstering China's standing in the global high-tech arena and propelling the all-encompassing.

5th Paper (IoT and Cloud Computing Issues, Challenges and Opportunities: A Review):

Summary: In order to support IoT programs' stable transition to the cloud, we investigate cloud computing and IoT in this paper. We also address cloud-compatible issues and computational strategies.

Analysis: Several Internet of Things applications would benefit from the combination of cloud computing and IoT. The most recent developments in cloud infrastructure, including features, architecture, and advantages, have been covered in this article. The discussion also focused on a number of Internet of Things technologies that would be extended throughout the cloud. Deployment challenges for cloud IoT and transparent issues are also covered. The overall goal of this paper was to provide an overview of recent research contributions on cloud computing, the Internet of Things, and its applications in our environment. It also aimed to illustrate future research directions and real concerns about how cloud computing integrates with the IoT.

6th Paper (IoT Privacy and Security: Challenges and Solutions):

Summary: examining the history of Internet of Things systems and security precautions and determining (a) various security and privacy concerns, (b) methods for securing IoT-based environments and systems' components, (c) current security measures, and (d) the optimal privacy models required and appropriate for various IoT-driven application layers. In this work, we propose a new Internet of Things layered model that is both generic and extended to include layers identification and privacy and security components. The suggested IoT system with cloud/edge support is put into practice and assessed. The Internet of Things nodes created as Virtual Machines by Amazon Web Services (AWS) constitute the lower layer. The Greengrass Edge Environment in AWS is supported by the middle layer, or edge, which is implemented as a Raspberry Pi 4 hardware kit.

Analysis: The suggested IoT system with cloud/edge support was put into practice and assessed. The Internet of Things (IoT) nodes created as Amazon Web Services (AWS) as Virtual Machines represent the lower layer. The Greengrass Edge Environment in AWS is supported by the middle

layer, or Edge, which is implemented as a Raspberry Pi 4 hardware kit. The cloud-enabled IoT environment is AWS is used to implement the top layer, or cloud. To protect user privacy, crucial management sessions and security protocols were positioned between each of these tiers. To enable data transfer between the layers of the suggested Cloud/Edge enabled Internet of Things model, we implemented security certificates.

Paper	Author	Methodology	Findings	Limitation
Internet of Things (IoT): A Literature Review (2015)	Somayya Madakam R. Ramaswamy Siddharth Tripathi	Comparing Thesis with current infrastructure applications	9 (1) There is no universally accepted definition; (2) Architectural level universal standardizations are necessary; (3) Technologies must be compatible across vendors; and (4) Standard protocols must be developed to improve global governance. Let's hope for better IoT in the future.	There is not enough implemented solution.
12 A Review on Internet of Things (IoT) (2015)	M.U. Farooq Muhammad Waseem Sadia Mazhar Anjum Khairi Talha Kamal	Comparing Suggested solutions with current commonly used infrastructure solutions	enabling new networking paradigms that will impact every aspect of our lives, from smart health and environment monitoring to automated homes. We present a clear IoT architecture, discuss associated security risks and enabling technologies, and explore anticipated applications that will improve our daily lives.	There is not enough implemented solution.
Introduction to IOT (2018)	Pradyumna Gokhale Omkar Bhat Sagar Bhat	Reviewing the evolution of the IoT Architecture	IoT will grow widely in the next few years and there are the same technological concerns that will challenge its implementations.	No statistics
4 IoT Technology and Application (2012)	QIAN Zhi-hong WANG Yi-jun	Comparing the current status and the future work as opportunities	Suggests a concept for the Internet of Things' (IoT) future development based on an examination of related technologies and issues that currently exist. The Internet of Things has altered the way data is shared amongst individuals, things,	There is not enough implemented solution.

			and services. The users will lead an effective, practical, and secure lifestyle thanks to the new functional experience.	
7 IoT and Cloud Computing Issues, Challenges and Opportunities: A Review	Mohammed Sadeeq Nasiba Abdulkareem Subhi Zeebaree Dindar Mikaeel Ahmed Saifullah Rizgar R Zebar	A Literature Review	1 Nearly everything in our world could be connected to everything else through it. IoT systems have constrained storage and retrieval capacities and intricate designs.	No statistics
6 IoT Privacy and Security: Challenges and Solutions	Lo'ai Tawalbeh Fadi Muheidat Mais Tawalbeh Muhannad Quwaider		suggested new IoT layered models: general and expanded to include layers identification, privacy and security components.	No Methodology

Assignment11.docx

ORIGINALITY REPORT

31%

SIMILARITY INDEX

15%

INTERNET SOURCES

12%

PUBLICATIONS

27%

STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to University of Huddersfield Student Paper	4%
2	Submitted to Melbourne Institute of Technology Student Paper	3%
3	Submitted to Zambia Centre for Accountancy Studies Student Paper	2%
4	www.ejournal.org.cn Internet Source	2%
5	Submitted to Sunway Education Group Student Paper	2%
6	www.mdpi.com Internet Source	2%

7	journal.qubahan.com Internet Source	2%
8	Vinay Kumar Mishra, Rajeev Tripathi, Raj Gaurang Tiwari, Alok Misra, Sandeep Kumar Yadav. "Chapter 31 Issues, Challenges, and Possibilities in IoT and Cloud Computing", Springer Science and Business Media LLC, 2022 Publication	2%
9	Submitted to Manipal University Student Paper	2%
10	Submitted to University of Northumbria at Newcastle Student Paper	2%
11	Submitted to Asia Pacific University College of Technology and Innovation (UCTI) Student Paper	2%
12	www.semanticscholar.org Internet Source	1%
13	Submitted to University of Bridgeport Student Paper	1%

Submitted to University of East London

14	Student Paper	1 %
15	Submitted to University of Johannesburg Student Paper	1 %
16	Submitted to UI, Springfield Student Paper	1 %
17	Submitted to National College of Ireland Student Paper	1 %
18	Pallavi Sunil Bangare, Kishor P. Patil. "Security Issues and Challenges in Internet of Things (IOT) System", 2022 2nd International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE), 2022 Publication	1 %

Exclude quotes Off
Exclude bibliography On

Exclude matches Off