**“AN INTRODUCTION TO INTERNET OF THINGS: SMART HOME TECHNOLOGY”**

A Research paper

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**INTRODUCTION AND BACKGROUNDOD THE TECHNOLOGY TOPIC**

The rise of the Internet of Things is revolutionizing the way we live. There are almost 15 Billion IoT devices around the world and it is expected to rise to almost 30 Billion in the next 7 years (IoT Connected Devices Worldwide 2019-2030 | Statista, 2022).  With this technology, it can automate almost everything around us as long as it is connected to a system of machines and sensors.

Internet of Things refers to a network of connected mechanical and digital machines or sensors that can exchange data over a network which in this case is the Internet, hence the name Internet of Things. Alongside the rise of the Internet of Things are its various applications and one of the most popular applications of this technology these days is smart homes, it helps automate the appliances in a household such as cleaning equipment, storage, lighting, and even cook wares in a house which makes domestic activities easier; and house monitoring such as surveillance cameras and door locks, and this can all be controlled through a remote, smartphone or Graphical Interfaces embedded in the appliances. Smart home technology offers several benefits to homeowners, such as energy efficiency, convenience, comfort, and security. Smart home technology offers convenience and comfort to homeowners by allowing them to control and monitor the usage of various appliances using their smartphones through the internet. This technology can also offer security by allowing homeowners to monitor their houses anywhere around the world as long as they are connected to the internet.

This paper will explore the various examples of Smart home technologies currently available in the market, it will also discuss the advantages and disadvantages of the technology and analyze how it affects the lives of people. It will also discuss the potential of this technology for further developments in the future, and lastly it will also discuss the security and privacy concerns related to this technology.

**OBJECIVES OF THE TOPIC**

The objective of this study is to analyze the current state of Smart Homes in the Internet of Things (IoT) and its impact on our daily lives. Furthermore, the study will aim to identify the most promising smart home technologies, applications, and use cases as well as to explore the challenges and the potential downsides of smart homes IoT systems.