INTERNET OF THINGS

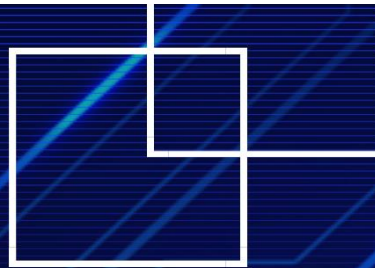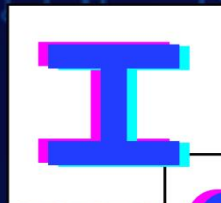Meenal Singh, Pragya Gupta

ABSTRACT

Internet of Things (IOT) is the networking of physical objects that contain electronics embedded within their architecture in order to communicate and sense interactions amongst each other or with respect to the external environment. Over the past few years, IoT has become one of the most important technologies of the 21st century. Now that we can connect everyday objects—kitchen appliances, cars, thermostats, baby monitors—to the internet via embedded devices, seamless communication is possible between people, processes, and things. By means of low-cost computing, the cloud, big data, analytics, and mobile technologies, physical things can share and collect data with minimal human intervention. In this hyperconnected world, digital systems can record, monitor, and adjust each interaction between connected things.

Internet of Things has emerged as a leading technology around the world. It has gained a lot of popularity in lesser time. Also, the advancements in Artificial Intelligence and Machine Learning have made the automation of IoT devices easy. Due to this, IoT has also expanded its area of application in various sectors like healthcare, agriculture, automotive industry etc. Globally, the number of IoT devices is expected to reach 29 billion by 2030, from a mere 9.7 billion in 2020. The internet of things market volume is expected to reach US$33.74bn by 2027, with a staggering CAGR of 11.49 from 2022 to 2027.

INTERNET OF THINGS (IOT) IS THE NETWORKING OF PHYSICAL OBJECTS THAT CONTAIN ELECTRONICS EMBEDDED WITHIN THEIR ARCHITECTURE IN ORDER TO COMMUNICATE AND SENSE INTERACTIONS AMONGST EACH OTHER OR WITH RESPECT TO THE EXTERNAL ENVIRONMENT

IOT

FEATURES

Sensing

Intelligence

Connectivity

Enormous Scale

Heterogenity

Dynamic

FUTURE

Lightining Control

Robotics

Smart Glass

Gesture control

Home Automation

Smart cities

Growing 5G

Pulse Oximeter

The number of devices expected to be connected to the Internet (IoT) around the world will reach about 38.6 billion in 2025 and 50 billion by 2030 (Statista). It will result in creating a massive worldwide network of connected devices across various industries. The global economy is also heavily impacted by IoT. The value of this market will reach between $4 and $11 trillion by 2025.