

## **SNS COLLEGE OF TECHNOLOGY**

Coimbatore-35 An Autonomous Institution



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

## **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**19EET304/ IOT for Electrical Sciences** III YEAR VI SEM

## UNIT 1 – INTRODUCTION

**TOPIC 1 – Internet of Things Promises–Definition** 



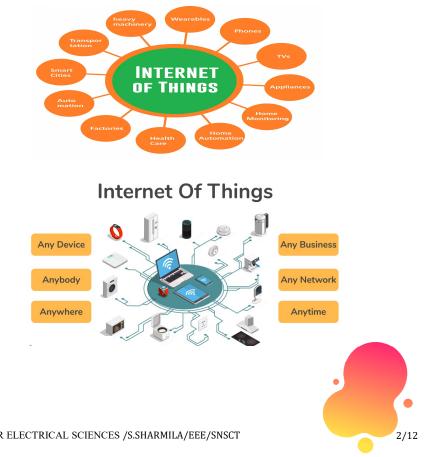


## **IoT Definition**



•The Internet of Things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. These devices range from ordinary household objects to sophisticated industrial tools.

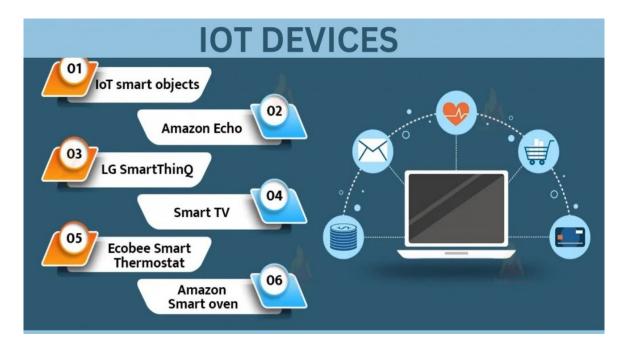
•With more than 7 billion connected IoT devices today, experts are expecting this number to grow to 10 billion by 2020 and 22 billion by 2025.







## **IOT DEVICES**





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## Key trends in IoT



#### Smart houses

Consumers are looking to IoT and smart house to help increase convenience as well as reduce costs and conserve energy.



Smart cities Smart city spans a wide variety of use cases, from traffic management to water distribution, to waste management, urban security and environmental monitoring.

#### Wearables

Wearable devices are installed with sensors and softwares which collect data and information about the users. This data is later pre-processed to extract essential insights about user.



#### Industrial IoT

IoT is empowering industrial engineering with sensors, software and big data analytics to create brilliant machines.



#### Smart retail

IoT provides an opportunity to retailers to connect with the customers to enhance the in-store experience.



**Connected** cars

A vehicle which is able to optimise it's own

operation, maintenance as well as comfort

of passengers using onboard sensors and

internet connectivity.

#### IoT in healthcare

Collected healthcare data will help in personalised analysis of an individual's health and provide tailor made strategies to combat illness.



#### Smart grids

A future smart grid promises to use information about the behaviors of electricity suppliers and consumers in an automated fashion to improve the efficiency, reliability and econom electricity.

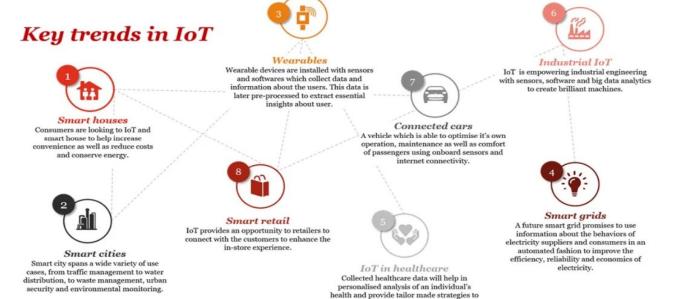


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## **KEY TRENDS IN IOT**







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combat illness.



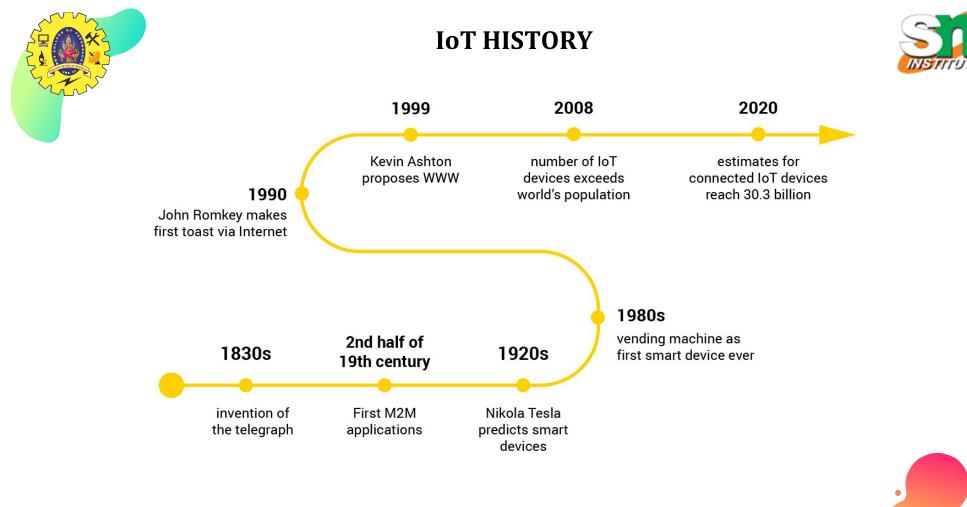
## where you can use IoT



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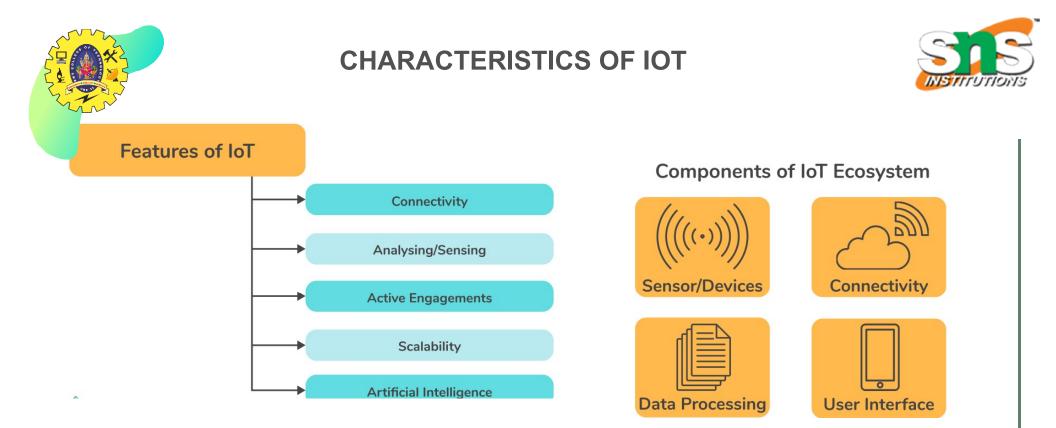
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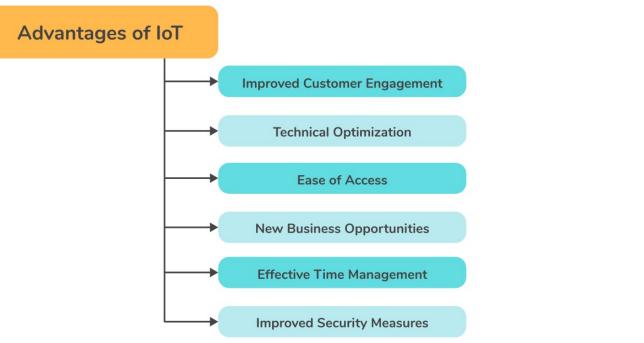




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## **ADVANTAGES OF IOT**





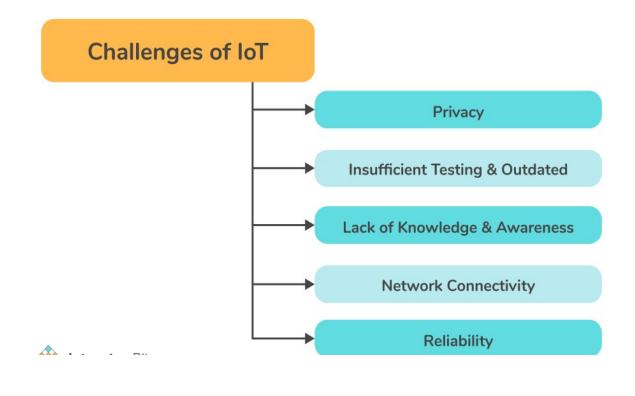
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## WHAT ARE THE CHALLENGES OR RISKS ASSOCIATED WITH IOT?



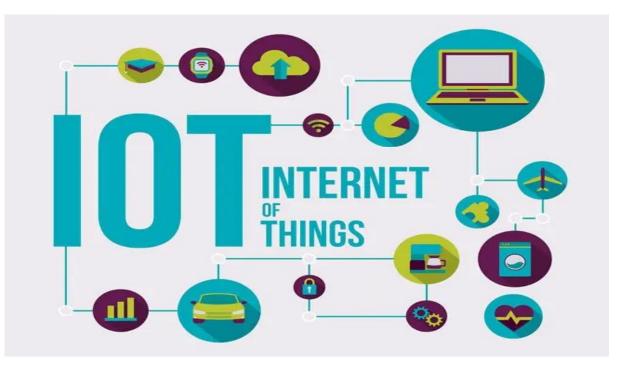




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## ASSESSMENT – 1 LIST MOSTLY USED SENSORS TYPES IN IOT





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## ASSESSMENT – 2

## WHAT ARE THE DIS ADVANTAGES OF IOT

# What are the Disadvantage of IoT?







## References



- <u>https://www.oracle.com/in/internet-of-things/what-is-</u> iot/#:~:text=The%20Internet%20of%20Things%20(IoT)%
  <u>20describes%20the%20network%20of%20physical,and%2</u>
  <u>0systems%20over%20the%20internet.</u>
- <u>https://www.interviewbit.com/iot-interview-questions/</u>
- <u>https://www.avsystem.com/blog/what-is-internet-of-</u> <u>things-explanation/</u>

