

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

16EET304/IOT for Electrical Sciences III YEAR VI SEM

UNIT 1 – INTRODUCTION

TOPIC 1 – Internet of Things Promises–Definition



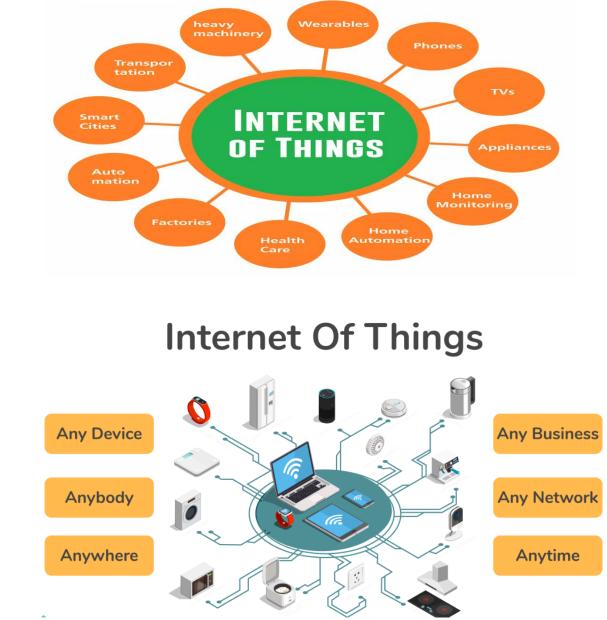






•The Internet of Things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. devices range from ordinary These household objects to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

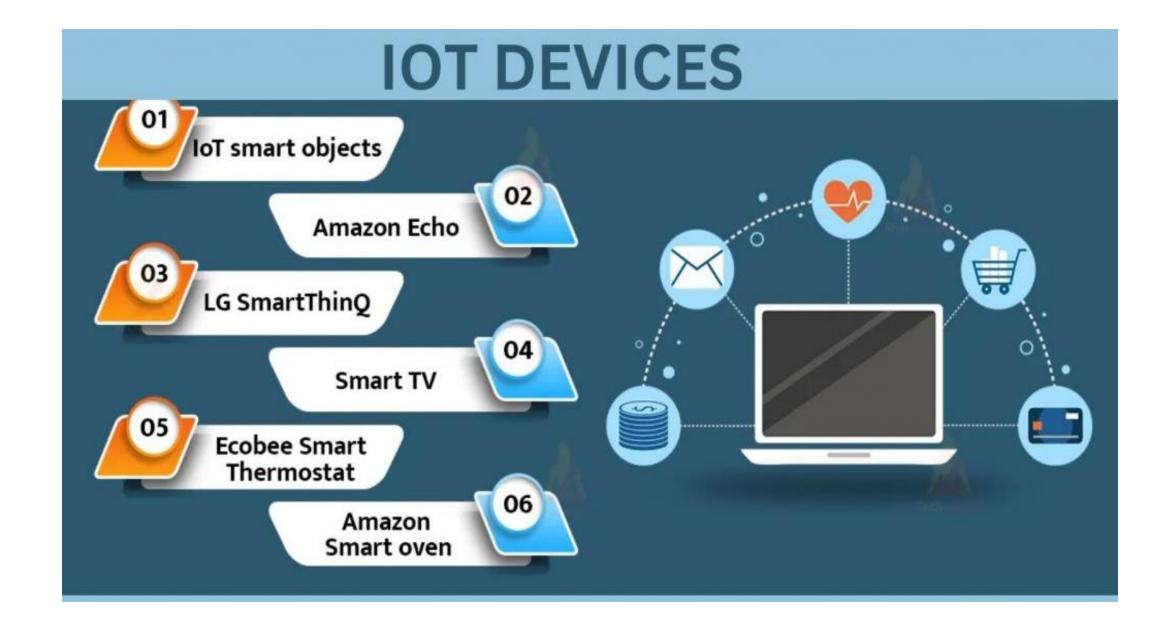
•With more than 7 billion connected IoT devices today, experts are expecting this number to grow to 10 billion by 2020 and 22 billion by 2025.







IOT DEVICES



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KEY TRENDS IN IOT

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.



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.



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.



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.

Smart retail

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



IoT in healthcare

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





Industrial IoT

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

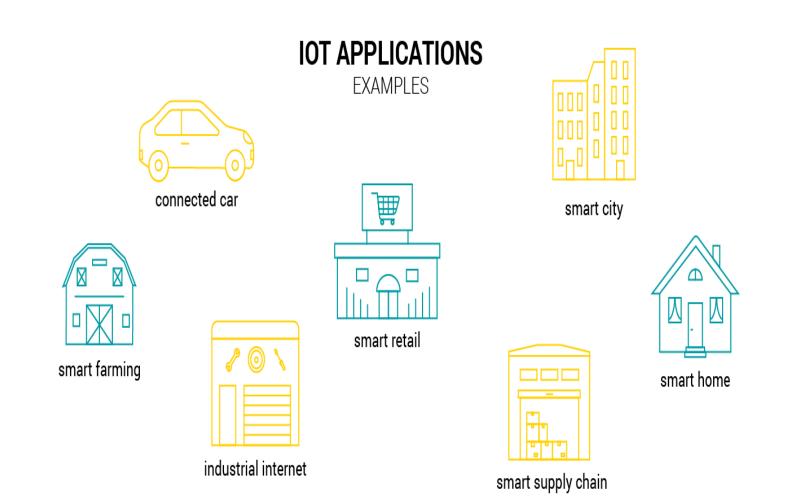


Smart grids

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 economics of electricity.

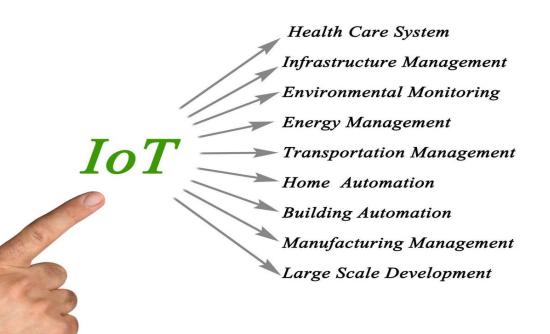






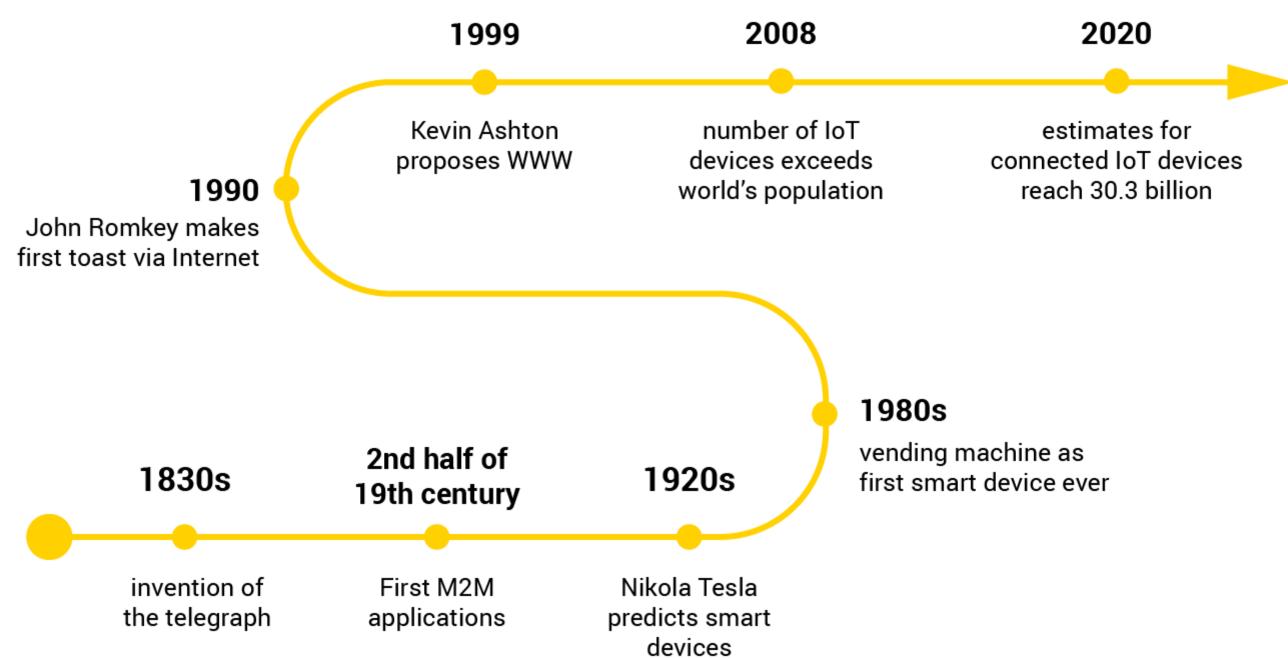
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IoT HISTORY



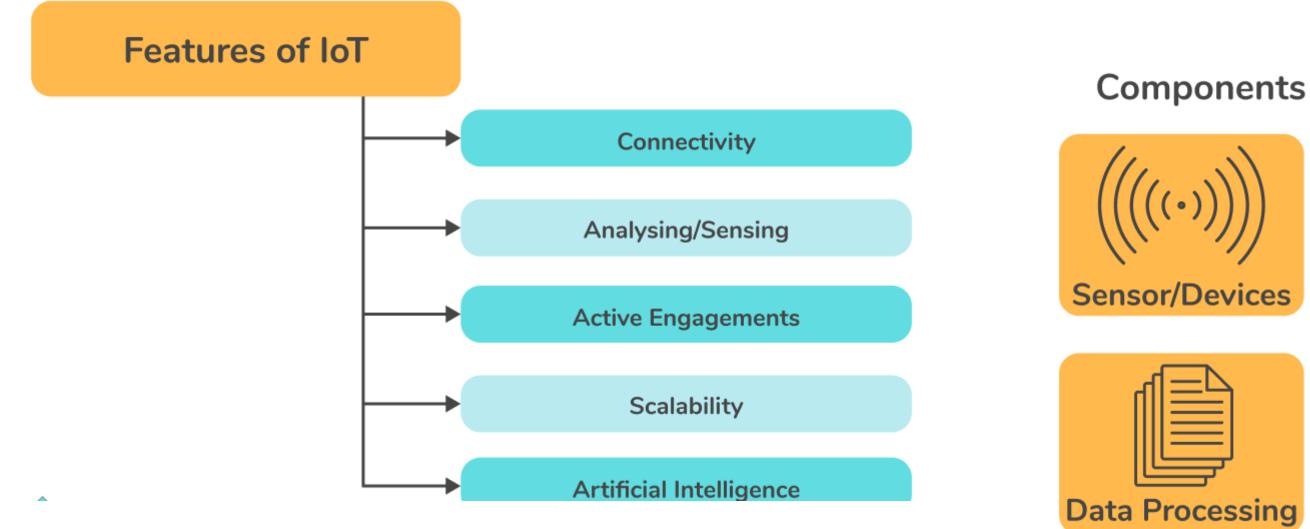


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CHARACTERISTICS OF IOT





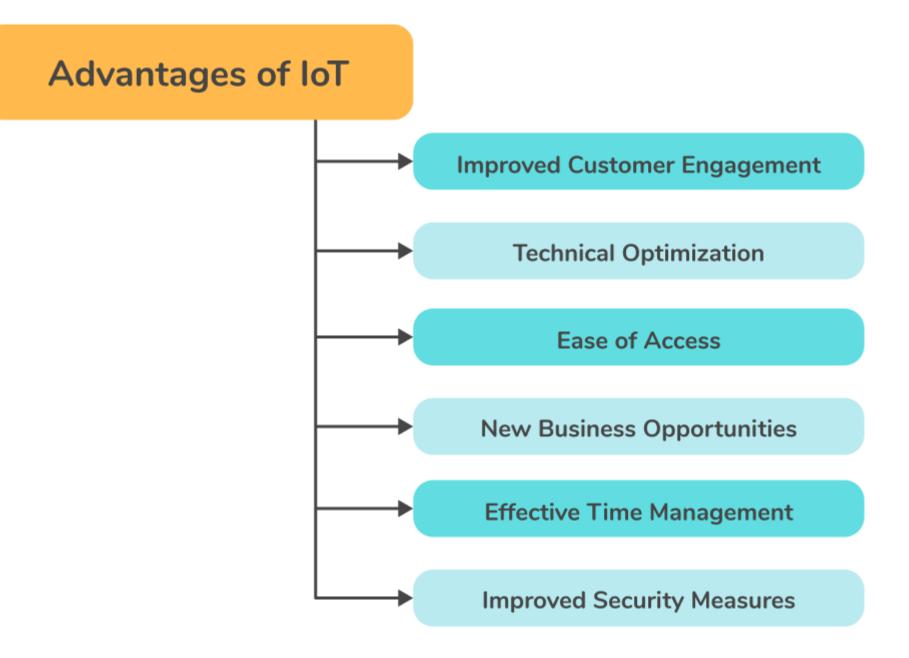
Components of IoT Ecosystem







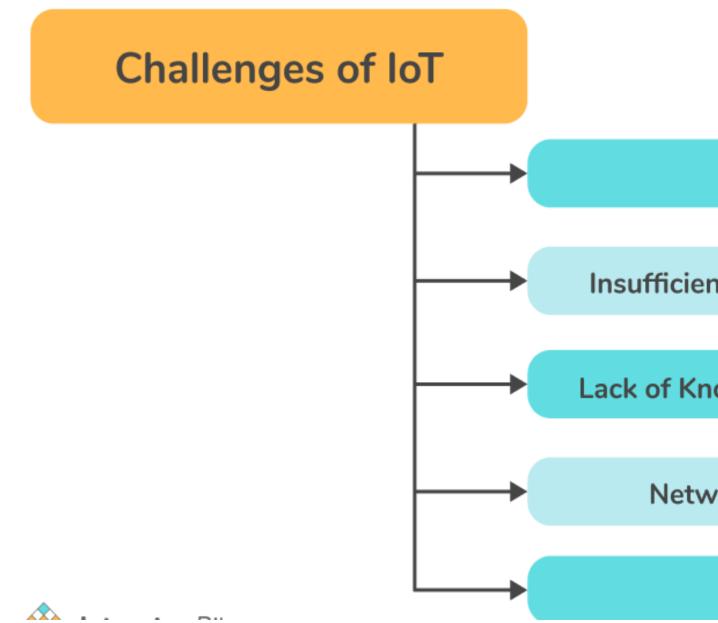
ADVANTAGES OF IOT







WHAT ARE THE CHALLENGES OR RISKS ASSOCIATED WITH IOT?



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Privacy

Insufficient Testing & Outdated

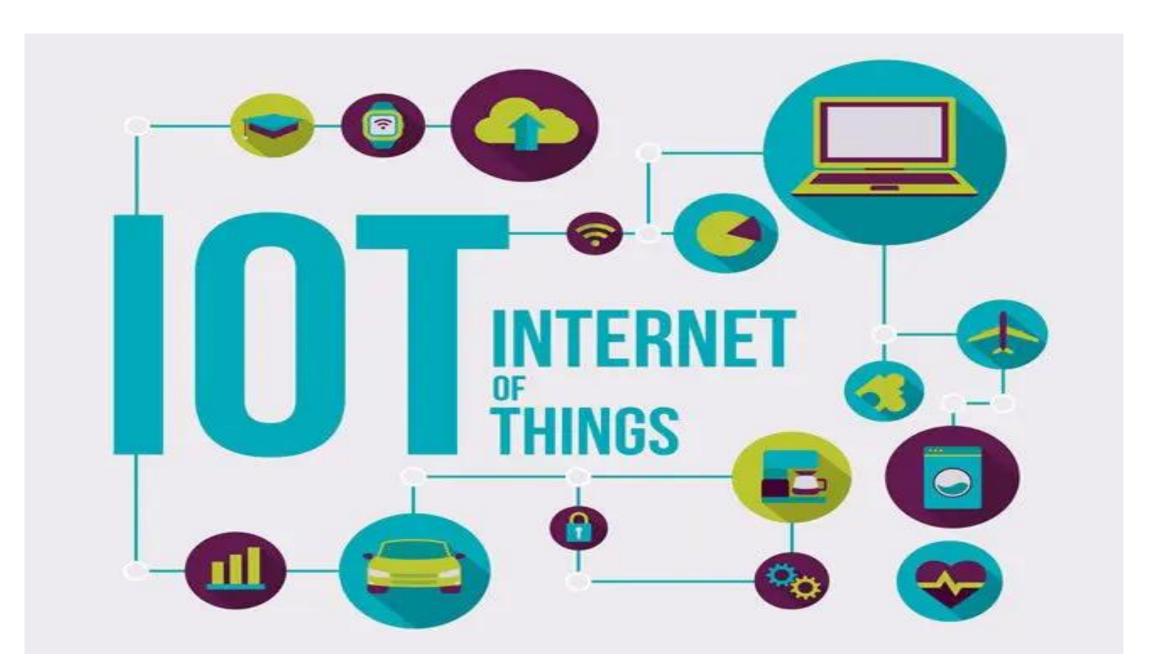
Lack of Knowledge & Awareness

Network Connectivity

Reliability



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





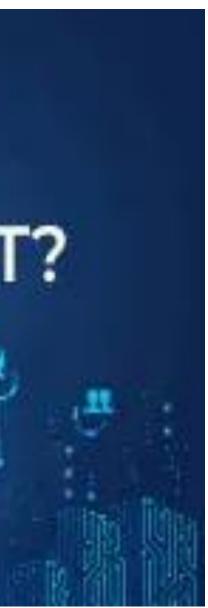


ASSESSMENT – 2 WHAT ARE THE DIS ADVANTAGES OF IOT

What are the Disadvantage of IoT?

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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>
- https://www.interviewbit.com/iot-interview-questions/
- https://www.avsystem.com/blog/what-is-internet-oflacksquarethings-explanation/



Thank You

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