

INTERNET OF THINGS (IOT)

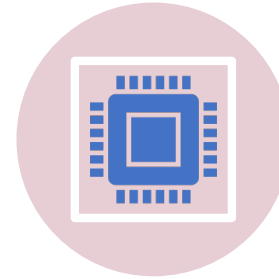
WHAT IS IOT?



IOT REFERS TO THE EVER-GROWING NETWORK OF PHYSICAL OBJECTS THAT FEATURES AN IP ADDRESS FOR INTERNET CONNECTIVITY AND THE COMMUNICATION THAT OCCURS BETWEEN THESE OBJECTS AND OTHER INTERNET ENABLED DEVICES AND SYSTEMS.



IN SIMPLE WORDS, IOT IS AN ECOSYSTEM OF CONNECTED PHYSICAL OBJECTS THAT ARE ACCESSIBLE THROUGH THE INTERNET.



IT IS ALSO REFERRED TO AS MACHINE TO MACHINE(M2M), SKYNET AND INTERNET OF EVERYTHING



COMPONENTS OF IOT



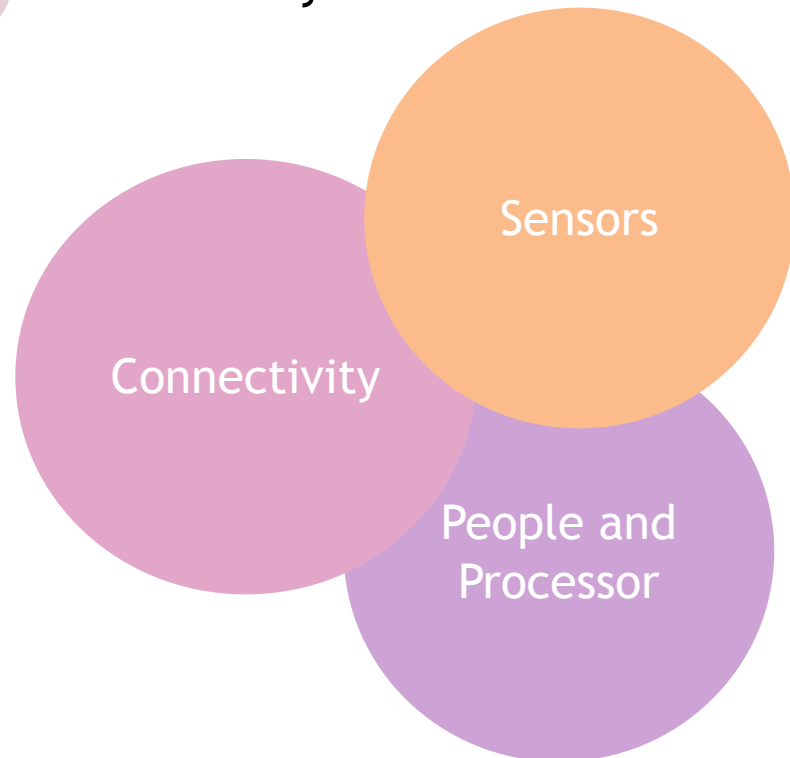
Sensors



Connectivity



People and
processes



WHY IOT?



Dynamic control over industry and daily life



Improves the resource utilisation ratio



Integrating human society and physical systems.

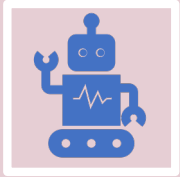


Flexible configuration

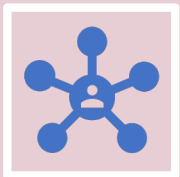


Universal networking

HOW CAN IOT HELP



IOT platforms can help organisations reduce cost through improved process efficiency, asset utilisation and productivity.



The growth and convergence of data, processes and things on the internet would make such connections more relevant and important, creating more opportunities for people, businesses and industries.

CHALLENGES



Scalability



Security



Technical
requirements



Technological
Standardisation



Software
complexity

Solutions to the challenges

Several solutions are proposed to overcome the problems.

Some of them are -

- Overcoming compatibility issues is a significant IoT hurdle, but emerging companies are starting to enable increased interoperability through open-source development.
- Governments and industry bodies need to set standards and regulations for the various industries to ensure that data is not misused.
- IoT needs strong authentication methods, encrypted data and a platform that can track irregularities on a network.