

Unit 45- Internet of Things

Week1_Lecture

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Unit-45 Internet of Things

Course Contents

1.Introduction to
Internet of Things

2. Design of the
System

3.IoT
Communication
Protocol

4. Difference Boards
and Devices used for
IoT

5.GPIO of Arduino

6.Sensor Interfacing

7. NodeMCU with
Alert System

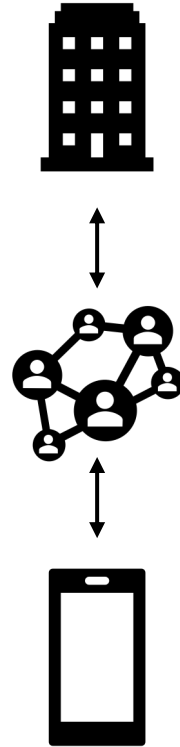
8. Project

Introduction to Internet of things



What is IoT?

What is IoT?



Your Things + Sensors

Data Analysis + Insights

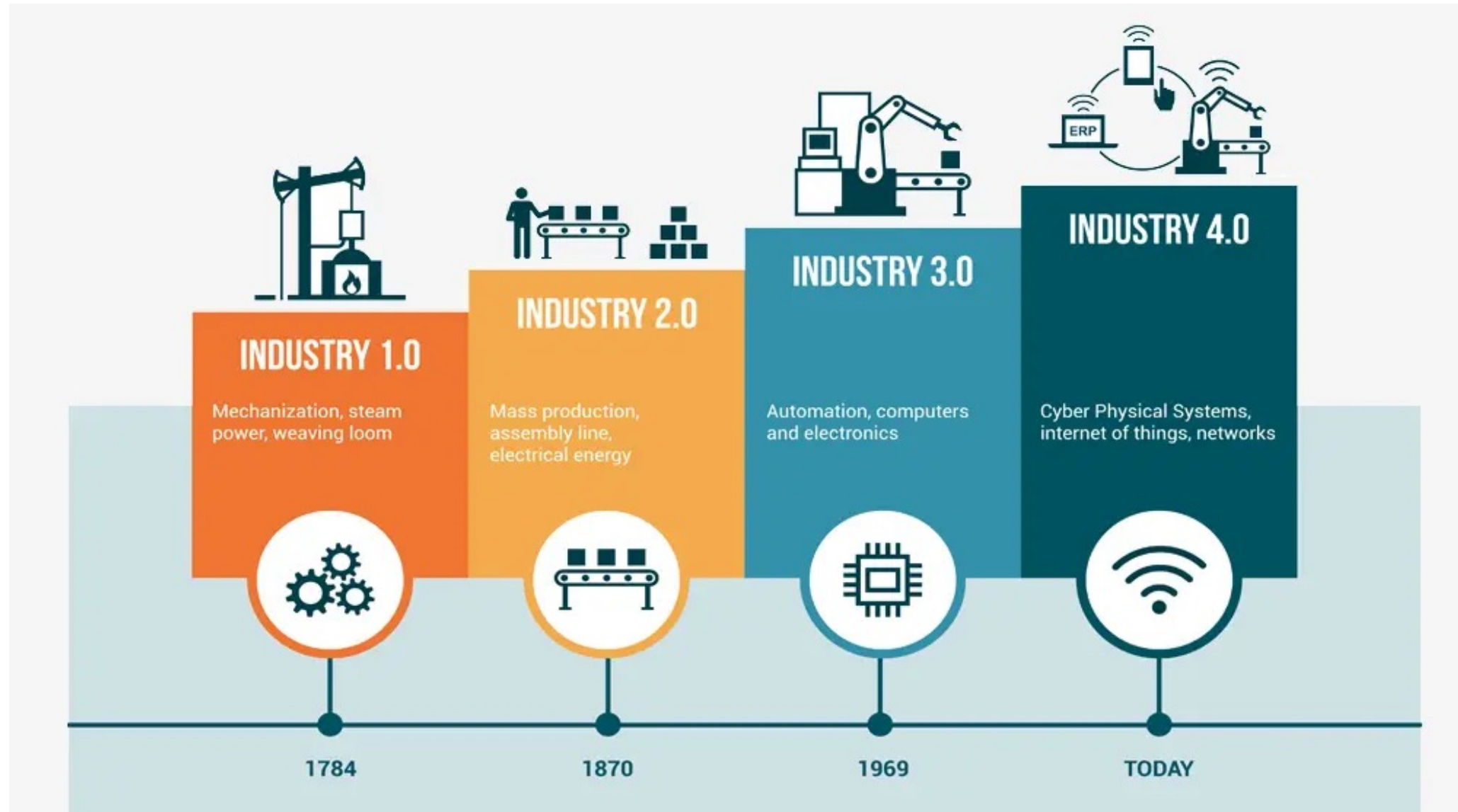
Action + Decision Making

Introduction:

- **IoT** creates an intelligent, invisible network that can be **sensed**, controlled and programmed.
- **IoT** enabled products embedded technology that allows them to **communicate**, directly or indirectly with **cloud or Internet**.
- **IoT** is advanced of devices, systems, and services that machine-to machine communications (M2M) and covers a variety of **protocols**, domains and applications.
- **IoT** to operate more efficiently, better understand customers to **deliever** enhanced customer serive, improve decision-making and increase the value of the business.

Is IoT is New Things?

Industry 1.0 - 4.0



Where is IoT?

Automobile

Healthcare

Education

Construction

Industrial

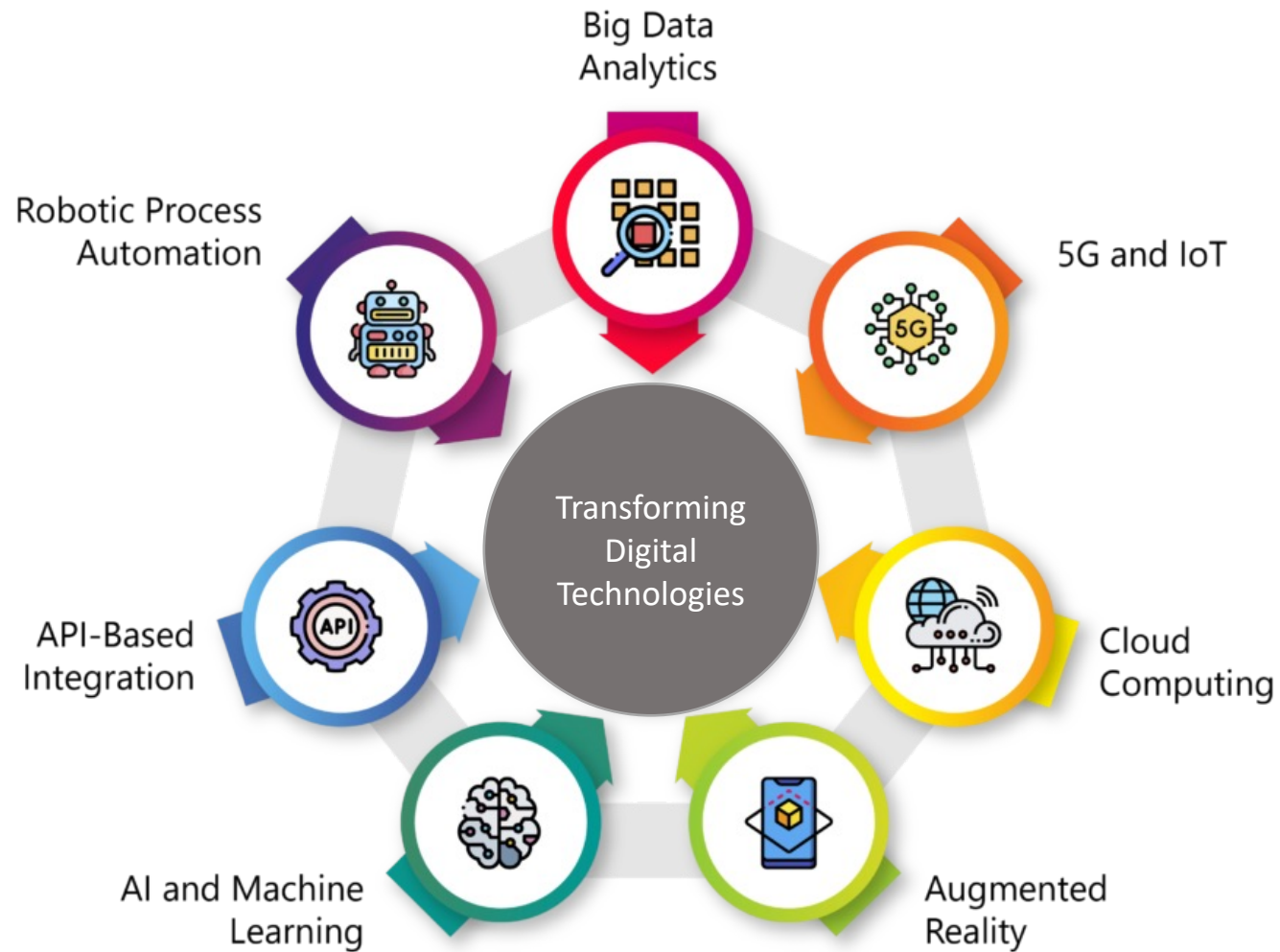
IT

Defence

Consumer Electronic

Manufacturing

Digital Transformation Technologies



IoT Projects Showcase

Benefits of IoT

IoT offers a number of benefits to organizations, enabling them to:

1. Monitor their overall business processes;
2. Improve the customer experience;
3. Save time and money;
4. Enhance employee productivity;
5. Integrate and adapt business models;
6. Make better business decisions;
7. Generate more revenue.

Technology:

IoT is faced with many challenges, such as

- Scalability
- Technological Standardization
- Software complexity
- Data volumes and interpretation
- Interaction and range communication
- Wireless communication
- Fault tolerance

- End of Lecture

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