

“INDUSTRIALIZATION”



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In the Era we are in, we live in a world full of constant advances which happen almost each and everything say economically, socially or technologically etc. Be it in an instant or in an indefinite period of time.

So, talking about the technical advances technical advances also change the way humans produce things. We all have studied about the Age of industrialization in history chapters. The step into production technology, which was completely different from the past, is also called the industrial revolution. The new production technologies fundamentally changed the working conditions and lifestyles of people. We all have learned before about the age of industrialization.

- **Industry 1.0:**

So, the age of industrialization or The Industrial Revolution started in the 18th century with the use of steam power and mechanization. The results and the efficiency which was achieved with the mechanized version were 8 times the efficiency of simple spinning wheels.

- **Industry 2.0 :**

The second industrial revolution began in 19th century with the discovery of using electricity in technology making more sophisticated machines. Many of the historians sometimes refer it as “The Technological Revolution”

- **Industry 3.0 -**

The third industrial revolution began around 70's in the 20th century through partial automation using memory-programmable controls and computers. Due to introduction to these technologies the human work was reduced and it became more efficient.

- **Industry 4.0 -**

We are currently in the fourth industrial revolution and is known as "Industry4.0". The fourth industrial revolution is the era of smart machines, storage systems and production facilities that can autonomously exchange information, trigger actions and control each other without human intervention. This exchange of information is made possible with the Industrial Internet of things (IIoT) as we know it today.

The key elements of industry 4.0 are:

1. **Cyber-physical system:**

A mechanical device that is run by computer-based algorithms.

2. **The Internet of things (IoT):**

Interconnected networks of machine devices and vehicles embedded with computerized sensing, scanning and monitoring capabilities.

3. **Cloud computing:**

Offsite network hosting and data backup.

4. **Cognitive computing:**

Technological platforms that employ artificial intelligence.

- **About Industry 5.0:**

Industry 4.0 starts to move towards Industry 5.0 when you begin to allow customers to customize what they want. As technological innovations become ever more rapid, revolutions could ultimately follow one another in quick succession over the next 10 years and beyond. Whereas the first three industrial revolutions took decades to play out, today's revolutions last only as long as it takes for industry-wide implementation to complete itself. It's important to note that Manufacturing 5.0 is an upgrade of 4.0 and not entirely new.