

Case Study: To Study Industry 4.0, It's Needs and List Minimum 20 IT Product Based & Service Based Industry.

What Is Industry 4.0?

We're in the midst of a significant transformation regarding the way we produce products thanks to the digitization of manufacturing. This transition is so compelling that it is being called Industry 4.0 to represent the fourth revolution that has occurred in manufacturing. From the first industrial revolution (mechanization through water and steam power) to the mass production and assembly lines using electricity in the second, the fourth industrial revolution will take what was started in the third with the adoption of computers and automation and enhance it with smart and autonomous systems fueled by data and machine learning.

Need of Industry 4.0 Because of Following Reason:

Cost efficiency

CXP Group recently conducted a study where they found that 90% of European manufacturers consider unplanned downtime and emergency maintenance caused by sudden failures a major challenge. This can worsen when there are scarce skills as engineers and technicians decide to leave or retire thus the factory is left with a shortage of experience. To resolve these issues, companies can install machine learning based monitoring that can continuously monitor assets and predict maintenance requirements before a major breakdown occurs on the line.

Customer centric

In the digital age, the consumer has become much more demanding in terms of levels of service and product customization. The impact of this is that CP companies need to become much more responsive and agile in how they produce products and services for their consumers. Nike has already started to provide a service called Nike By You which allows customers to customize products bought from them.

Agility

To create an agile business will mean that factories need to invest in flexible production lines. New technologies need to be deployed such as robots and cobots to achieve this. A Cobot is a collaborative robot that can help remove the need of completing repetitive tasks that humans might otherwise do. This can reduce human error and increase the wellbeing of employees in the factory.

List of IT Product Based Industries & Service Based Industries:

- 1. Hosting:** Microsoft
- 2. Industrial IoT Platforms:** Microsoft, GE, PTC, and Siemens\
- 3. Analytics:** Uptake
- 4. Microchips:** Nvidia
- 5. Sensors:** Festo
- 6. Connectivity Hardware:** HMS
- 7. Cyber security:** Claroty
- 8. Systems Integrators:** Accenture
- 9. Additive Manufacturing:** General Electric
- 10. Augmented and Virtual Reality:** Upskill
- 11. Collaborative Robots:** ABB
- 12. Connected Machine Vision:** Cognex
- 13. Drones / UAVs:** PINC
- 14. Self-Driving (material transport) Vehicles:** Clearpath Robotics
- 15. WebClues_Infotech**
- 16. Infosys**
- 17. Tata Consultancy Services Ltd.**
- 18. Tech Mahindra**
- 19. Infotech**
- 20. IBM**