MANUFACTURING SKILL STANDARDS COUNCIL

Definition of Industrial Internet of Things (IIOT)

The industrial internet of things (IIoT) refers to the extension and use of the internet of things (IoT) in industrial sectors and applications. It utilizes interconnected sensors, instruments, and other devices networked together with computers' industrial applications within a central hub to facilitate more efficient production management.

With a strong focus on machine-to-machine (M2M) communication, big data, and machine learning, the IIoT enables industries and enterprises to ensure precision, quality, speed and reliability in their operations, including the following:

- Quality Control - Improve product quality and comply with specifications
- Reporting - Track all program activities to ensure compliance and timely reporting
- Planning and Scheduling - Plan for an optimized capacity utilization of company shop floor resources
- Inventory Control - Improve inventory accuracy and optimize material availability
- Suppliers and Purchasing - Keep suppliers informed and involved through improved collaboration.

The IIoT also encompasses specific industrial applications, including robotics, medical devices, remote control, software-defined production processes, and IOT dashboards. IIOT can be used in a variety of processes, such as surface mount pick and place for printed circuit board assembly, injection molding, metal fabrication, and material handling.

Sources:
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