



**MSME-TOOL ROOM, HYDERABAD
(CENTRAL INSTITUTE OF TOOL DESIGN)**

(A Government of India Society, Ministry of MSME)
Bal Nagar, Hyderabad, PIN - 500037. Ph No.040-23771959
Website: www.citdindia.org



Crash Course Description (ESDM)

Certificate Program on Neural network implementation by using Verilog

Description: -Neural network implementation by using Verilog that involves designing and programming a neural network model on a hardware platform such as FPGA. Verilog is a hardware description language that can be used to describe the structure and behavior of digital circuits. Neural networks are computational models that can learn from data and perform tasks such as classification, regression, and recognition.

Take Away :- After Completion of this course, the trainee will have hands on expertise in the following areas:

- **Specification:** Defining the functionality, interface, and performance requirement of the circuit.
- **Architecture:** Designing the overall structure and organization of the circuit, such as the number and type of modules, registers, buses, and control signals.
- **RTL design:** Describing the behavior and logic of each module using a hardware description language (HDL), such as Verilog.
- **Synthesis:** Converting the RTL description into a gate-level netlist, which is a list of logic gates and their connections.

Eligibility: Pursuing/Completed Diploma (ECE/ECM/EEE)/BSc/MSc (Electronics)/B.Tech/BE/ME/M.tech (Electronics/ECE/EEE/VLSI/Embedded).

Duration:- 10 days. Every day 2 hrs. online Class.

Fees :- Rs 3000/- (GST Included)

K. Murali
19/2023

के. मुरली / K. MURALI
प्रधान निदेशक/Principal Director
एमएसएमई टूल-रूम, हैदराबाद
MSME Tool Room, Hyderabad
केन्द्रीय उपकरण अभिकल्प संस्थान
Central Institute of Tool Design
(भारत सरकार की सोसाइटी-एमएसएमई मंत्रालय)
(Govt of India Society-Ministry of MSME)
बालानगर, हैदराबाद/Hyderabad, Hyderabad-500 037.



**MSME-TOOL ROOM, HYDERABAD
(CENTRAL INSTITUTE OF TOOL DESIGN)**

(A Government of India Society, Ministry of MSME)
Balanaar, Hyderabad, PIN - 500037. Ph No.040-23771959
Website: www.citdindia.org



Crash Course Description (LCA)

Certificate Program on Industrial Automation by using PLC

Description: -Industrial automation by using PLC, that refers to the use of computer and machinery aided systems to operate the various industrial operations in a well-controlled manner. Industrial automation can improve the efficiency, productivity, quality, and safety of industrial processes by reducing human intervention and errors, and enabling remote monitoring and control. Industrial automation can also adapt to changing conditions and learn from data and experience. There are two major types of industrial automation systems: process plant automation and manufacturing automation. Process plant automation involves controlling and optimizing the processes that produce various products from raw materials. Manufacturing automation involves controlling and coordinating the production flow, assembly, and packaging of goods. Both types of industrial automation systems use different devices and technologies such as sensors, actuators, controllers, communication networks, software, and artificial intelligence.

Take Away :- After Completion of this course, the trainee will have hands on expertise in the following areas:

- S7-1200 PLC: Defining the functionality, interface, and performance requirement of the PLC.
- Ladder Logic: Programming the PLC by using Ladder Logic and functional Block programming languages by using Total Integrated Automation (TIA) software.
- Physical wiring: Physical wiring of the PLC as per the logic with sensors and actuators.
- Use Case Study: Integration of PLC with Conveyor system for product quality checking.

Eligibility: Pursuing/Completed Diploma (ECE/ECM/EEE) /B.Tech/BE/ME/M.tech (Electronics/ECE/EEE).

Duration:- 10 days. Every day 2 hrs. online Class.

Fees: - Rs 3000/- (GST Included)

K. Murali
19/10/2020

के. मुरली / K. MURALI
प्रधान निदेशक/Principal Director
एमएसएमई टूल-रूम, हैदराबाद
MSME Tool Room, Hyderabad
केन्द्रीय उपकरण अभिकल्प संस्थान
Central Institute of Tool Design
(भारत सरकार की सोसाइटी-एमएसएमई मंत्रालय)
(Govt. of India Society-Ministry of MSME)
बालानगर, हैदराबाद/Balanaar Hyderabad-500 037.



**MSME-TOOL ROOM, HYDERABAD
(CENTRAL INSTITUTE OF TOOL DESIGN)**

(A Government of India Society, Ministry of MSME)
Balanagar, Hyderabad, PIN - 500037, Ph No.040-23771959
Website: www.citdindia.org



Crash Course Description (14.0)

Certificate Program on Industrial Internet of Things (IIoT)

Description: -The industrial internet of things (IIoT) is a term that describes the use of smart devices, sensors, and networks to connect and optimize industrial processes, such as manufacturing, energy, transportation, and agriculture. The IIoT can enable data collection, analysis, and automation, leading to improved efficiency, productivity, quality, and safety. The IIoT is also a key component of Industry 4.0, which is the digital transformation of the industrial sector.

Take Away :- After Completion of this course, the trainee will have hands on expertise in the following areas:

- Bring your devices online
- Data Automation
- Data Visualization
- Serve your Distributors
- Apps for Installers and End-Users
- Integrate your Services

Eligibility: Pursuing/Completed Diploma (ECE/ECM/EEF) /B.Tech/BE/ME/M.tech
(Electronics/ECE/EEE)/Bsc/MSc(Electronics)

Duration:- 10 days. Every day 2 hrs. online Class.

Fees: - Rs 3000/- (GST Included)

K. Murali
19/2023

के. मुरली / K. MURALI
प्रधान निदेशक/Principal Director
एमएसएमई टूल-रूम, हैदराबाद
MSME Tool Room, Hyderabad
केन्द्रीय उपकरण अभिकल्प संस्थान
Central Institute of Tool Design
(भारत सरकार की सोसाइटी-एमएसएमई मंत्रालय)
(Govt. of India Society-Ministry of MSME)
बालानगर, हैदराबाद Balanagar Hyderabad-500 037.