National Institute of Electronics and Information Technology, Aurangabad

COURSE PROSPECTUS

Name of the Group: Industrial Automation

Name of the Course: Certificate course in Industrial Automation

Course Code: IA101

Duration: **120 hours**

Preamble: :Stiff competition, higher quality standards and growing concerns of safety & environmental damage have pushed the Industrial sector to adapt state-of-the-art Automation Techniques for effective utilization of resources and optimized performance of the process plants. Recent trend of merging control systems associated with both factory and process automation demands knowledge from diverse fields. The industrial automation applications include automation of time critical systems that demand precise real-time readings and control.

Objective of the Course: This course is aimed at equipping an Engineer /Diploma holder /M.Sc holder (in specific streams) with appropriate knowledge and skills required in configuring, programming and operating PLC, graphical programming using LabView, Data Acquisition using NI DAQ cards

Outcome of the Course: PLC Engineers to meet the requirements of configuring, programming, installing and operating of PLC. Students will be thorough with the use of NI Data Acquisition cards and graphical programming language.

Course Structure:

The course consists of the following modules as given in the table below.		
Name of the course (duration in weeks)		
Sub Modules		Duration
Core Modules	PLC (both simulation and hands on practice on S7-1200 PLC trainer kit)	120hrs
	PLC based PID control system (DC motor speed control), Electro- Pneumatic Trainer kit, Level measurement and control using PLC, Pick-N-Place robot	
	Graphical Programming language using Labview	
	NI PCIe-6321, X series Multifunction DAQ	
	USB-9211 Thermocouple input module for windows	
	NI 9217 RTD input module	

Other Contents

a. Course Fees : Total course Fee is 10000 + service tax @ actual

b. Eligibility: BE/B.Tech /Diploma passed in the following discipline. Electrical/ Electronics/ Instrumentation/ Industrial electronics/ Applied Electronics and Instrumentation/ Instrumentation & Control/ Electronics & Communication/ Mechatronics / Computer Science. M.Sc in Electronics/ Instrumentation/ Industrial electronics.

c. Number of Seats : 20

d. How to Apply: By filling registration through the web link: http://nielit.gov.in/aurangabad/content/short-term-courses-3

e. Discontinuing the course: No fees under any circumstances shall be refunded in the event of a student discontinuing the course. A student can however, be eligible for module certificates (applicable only for courses which provide for modular admission) which he has successfully completed provided he has paid the entire course fees.

f. Course Timings : From 9:30 AM to 12:30 PM, Monday to Friday.

g. Location and how to reach: NIELIT Aurangabad is located inside Dr BAMU University Campus and is about 6 Kms from the Aurangabad (Maharashtra) city bustand.

a. Course enquiries : Students can enquire about the various courses either on telephone or by personal contact between 9.30A.M. to 5.15 P.M. (Lunch time 1.00 pm to 1.30 pm). The contact person is Saurabh Bansod, e-mail id is-saurabhbansod@nielit.gov.in

b. Placement: Usually students contact companies directly by sending resumes in response to job advertisements and get placed.

c. Hostel facilities : Available