Course Dates and Venue

December 6 — 11, 2010 (six days)

At GTU, Ahmedabad

Certificate

A compulsory examination will be conducted at the end of the course. Successful participants shall be given a certificate issued by IIT Bombay.

Contact

For further details regarding the course, please contact

Mr.Dipesh Makwana

Dept. of Instrumentation & Control Engineering

L.D. College of engineering

Navarangapura

Ahmedabad

Contact no: 09227251812

Continuing Education Programs in

Digital Control

At Gujarat Technological University

December 6—11, 2010

Offered By

Control Automation Reliability Instrumentation Measurement Optimization (CARIMO) Cell,

Systems and Control Engineering Group,

Indian Institute of Technology,

Bombay

Program Objectives

The objective of this program is to cover key facets of industrial technology, related to Digital Techniques for Automation and Control. The program modules cover in depth fundamentals and high end technology. Application specific approach will be followed in order to maintain the orientation, while preserving the interest of the participants.

Program Features

- Topics: from Fundamental to Advanced
- Practical relevance to work
- Knowledge as well as skill based approaches
- Exposure to state of the art technology, including hands-on.

Various modules of the course have been offered to participants from top industries and organizations such as Bharat Petroleum, BHEL, Century Rayon, Cipla, Hindustan Petroleum, Indian Aluminum, Indian Oil, IPCL, ISPAT Steel industries, Klocner & Windsor, L & T, Lupin, Lubrizol, Mazgaon Dock, National Fertilizer, , Nuclear Power Corporation, ONGC, Ranbaxy, Reliance Industries, Suzlon. More than 700 participants benefitted from the courses.

Course modules

Module 1: Digital Control Basics, Stability Tests, System Identification, Case studies.

Module 2: Classical Digital Controller Design, Controller Performance assessment, Observer Design

Module 3: SS Representation, Realization, Design, implementation, Controllability and Observability, Role of Observability in Computer Simulation, Statistical performance monitoring using state space models and Wavelets, Simulation examples.

Module 4: Communication Protocols in industries - Application overview, Field bus, GSM / GPRS / Zigbee communication, Industrial case studies of digital automation

Module 5: Robust Control, Adaptive Control, and Model Predictive Control.

Module 6: NI workshop (awaiting confirmation from NI) (NI, Bangalore)

Module 5 will follow modules 1 and 2.

Faculty

The faculty consists of renowned experts from academia and industry:

Prof. Dr. P. S. V. Nataraj,

Chief Course Coordinator, IIT Bombay

Prof. Ravindra D. Gudi,

Professor (Advanced Process Control),

IIT Bombay.

Mr. Vilas S. Chitnis,

CEO, CSIL, Mumbai. Industry Expert.

Prof. Dr. Ajay V. Deshmukh

(IIT Bombay), Program Coordinator

National Instruments, Bangalore.,

Industrial Partner .