Send your Registration forms

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µC applications in Power Electronics rical and Electronics Engineering, Technology, Tiruchirappalli, on PIC Dr. N. Ammasaigounden ectrical - 620 015 5 National Institute ш 5 Coordinator Department **Famil Nadu** Professor,

## **RESOURCE PERSONS**

Department of Electrical and The Electronics Engineering of this institute started in the year 1964, is now offering undergraduate programme, postgraduate programmes (Power Systems & Power Electronics) and research degrees (MS & Ph.D.) in various fields of electrical and electronic engineering. The Department is recognized for excellence in research, teaching and service to the profession. Faculty members of this department with large number of years of experience in teaching, research and laboratory developments will be conducting the theory and practical sessions.

## COORDINATORS

Dr. N. Ammasaigounden & Dr. N. Kumaresan

Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli, Tamil Nadu - 620 015.

e-mail : ammas@nitt.edu & nkumar@nitt.edu Phone No. : 0431-250 3253 /3257/3250 Short-term training program on

PIC microcontroller applications in Power Electronic circuits

# Under the Self-Financed Category

22-23 June 2012



## Organized by

Department of Electrical and Electronics Engg. National Institute of Technology, Tiruchirappalli, Tamil Nadu - 620 015.

### Scope of the training program

Application of Power Electronics ranges from power supplies to motion control, factory automation, transportation, multimegawatt industrial drives, power quality, electric power transmission / distribution and renewable energy systems. Hence, Power Electronics will play a dominant role in the 21<sup>st</sup> century in industrial and utility applications with increased emphasis on energy saving and preserving the green environment. In such Power Electronic circuits, traditionally, analogue based closed-loop control systems have been implemented at the expense of high complexity and low efficiency due to the large number of components. In recent times, higher end digital processors are being employed for the control of power electronic circuits. The high processing speed, programmability and computational power offered by these processors have enabled the design of complex algorithms. So, this training program aims at explaining architecture. programming and the interfacing concepts of PIC microcontroller through comprehensive lecture and laboratory classes and to enable the participants to gain an in-depth knowledge of programming PIC microcontroller and its applications to Power Electronic circuits.

The following topics will be covered in the training program:

- Architecture and programming of PIC 16F876 microcontroller
- Interfacing concepts and typical firing / gating circuits

- Introduction to MPLAB IDE and device programming using MPLAB
- Pulse generation using PIC microcontroller for Power Electronic circuits such as controlled rectifiers, dc-dc converters and inverters.

Hands-on experience will be given to the participants for developing the assembly language programs using MPLAB for device programming and observing the firing / gating pulses generated using digital storage oscilloscope.

#### Registration

#### Individual

Academic institutes	Rs.1,200
Industries & Govt. organizations	Rs.2,000
Students	Rs.1,000
Group (for 3 Registrations)	
Academic institutes	Rs.3,200
Industries & Govt. organizations	Rs.5,500
With a view to give individual attention to the	
participants and to make the program more	
effective, the number of participants is restricted	
to about 30.	
The registration fee includes workshop kit, lunch	
and refreshments for both the days.	
Accommodation for the participants may be	
arranged in the institute guest house / hostels on	
request (chargeable basis). Normally it will be a	
twin shared accommodation.	
Important dates	
Completed Registration forms accompanied by	
registration fee (in the form of DD) should reach	
the coordinator not later than $15^{\text{th}}$ June 2012	
The selected candidates will be intimated by 16 <sup>th</sup>	
June 2012 by e-mail / phone	
JUIIC 2012 UV C-IIIaII / DIIUIIC.	

#### **REGISTRATION FORM**

Short-term training program on PIC microcontroller applications in Power Electronic circuits Under the Self-Financed Category 22-23 June 2012

Name :
Designation :
Organization :
Official Address :
Mobile/Telephone:
e-mail :
Accommodation Required : Yes / No
Payment details DD No. :
Date : Rs. :
Director, NIT, Tiruchirappalli" payable Tiruchirappalli)
Date :
Signature :