REGISTRATION FORM

Short Term Course on "Blackfin Processor and its Applications"

(June 20, 21 and July 4, 2015)

Name:

Semester:

Department:

Address for Correspondence

e-mail ID:

Mobile Number:

Details of Demand Draft

Place: Signature of the Applicant
Date:

Participants:

This workshop is addressed to UG students from Engineering colleges who are working in the areas of Signal Processing and Programming in Digital Signal Processors. The course is designed in such a way that the theoretical concepts would be supplemented by simulations during the practice sessions.

Details of Registration:

Filled in application form should be accompanied by a Demand Draft of drawn in favor of "**The Principal, Thiagarajar College of Engineering, Madurai**", payable at Madurai. The registration fee includes the course material and refreshments.

Students- **Rs 600/-**

The number of seats is limited to 30.

Last Date for Registration: **15.06.2015**
Intimation through e-mail: **16.06.2015**

Address for Correspondence:

Dr.K.Rajeswari
Coordinator
Assistant Professor, Dept of ECE,
Thiagarajar College of Engineering
Madurai 625015.
e-mail: rajeswari@tce.edu
Mobile: +919994420039 Web: www.tce.edu

Short Term Course on "Blackfin Processor and its Applications"

(June 20, 21 and July 4, 2015)

Organized by

Department of Electronics & Communication Engineering

Thiagarajar College of Engg.
Madurai 625015

Course Coordinators

Dr.S.J.Thriuvengadam
Dr.K.Rajeswari
Mr. P.G.S.Velmurugan

TCE:

Thiagarajar College of Engineering (TCE), Madurai, an ISO 9001:2000 certified institution, affiliated to Anna University, Thirunelveli, is one among the several educational and philanthropic institutions founded by Late.Shri Karumuttu Thiagarajan Chettiar, established in 1957. This Govt. aided institution was granted autonomy in 1987 and is accredited by National Board of Accreditation (NBA). TCE offers 7 undergraduate (UG), 13 postgraduate (PG) and Doctoral programmes in Engineering and Science.

ECE Department:

Department of Electronics and Communication Engineering offers an UG programme in Electronics and Communication Engineering and PG programmes on Communication Systems and Wireless Technologies. This DST FIST supported department has completed 14 research projects with research organizations like DRDL, RCI, DEAL, BrahMos Aerospace and ISRO and consultancy works for companies like Motorola, Honeywell, Texas Instruments, TVSICS, Amphenol Antel in Wireless Communication system. The department has also established National Instruments Electronics system Design lab using Educational Laboratory Virtual Instrumentation suite. The laboratory facilities in this department include vector network analyzer, vector signal analyzer, NI IF RIO boards, NI RF and Communications platform, Speedy 33 DSP kits, ASIC prototyping boards and OMAP 1510 kit code compose studio.

About the Course:

The course is on Digital signal processing programming & applications. The applications lab is conducted with the Blackfin processor ADSP-BF533 and TigerSharc processor TS201S. The feature-rich Blackfin Processor family is ideally suited for a wide range of industrial applications. Blackfin Processors offer performance up to 750 MHz/1512 MMACS. The family offers the lowest power consumption as low as 0.15 mW/MMAC at 0.8 V. The combination of high performance and low power is essential in meeting the needs of signal processing applications today and in the future— including broadband wireless, audio/video-capable Internet appliances, and mobile communications. The course is basically focused for UG students as this will aid in clarity for project work and much more.

Course Outcomes:

At the successful completion of the course, the participant will be able to

- Describe the architecture of Blackfin processor (BF533) and SHARC Processor
- Write the assembly language program using Instruction set of Blackfin Processor.
- Design digital filter using Blackfin Processor.
- Implement adaptive algorithms for designing filters.
- Implement Baseband communication algorithms.

Course Outline:

- Introduction to analog and digital signals
- Introduction to DSP Processor
- ADSP BF533 Architecture and Instruction Set
- SHARC Processor Architecture
- Implementation of FIR/IIR Filters
- Frequency Analysis with Blackfin Processor
- Implementation of Baseband Modulators and Demodulators
- Echo Cancellation
- Adaptive Equalization
- Code Optimization
- Hands on training for the IDE Environment Visual DSP++ and BF533 EZ-Kit