

**MICROPROCESSOR LABORATORY**  
**SECOND CENTRAL AMERICAN REGIONAL COURSE ON**  
**ADVANCED VLSI DESIGN TECHNIQUES**  
**29 November – 17 December 2004**  
**Puebla - Mexico**

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy and the Benemerita Universidad Autonoma de Puebla will jointly organize the above mentioned course, to be held at the Centro de Investigaciones en Dispositivos Semiconductores del Instituto de Ciencias (CIDS-ICBUAP), Puebla, from 29 November to 17 December 2004. The Course will be directed by Prof. Alberto A. Colavita (ICTP) and Dr. Blanca Susana Soto-Cruz (CIDS). Dr. Andres Cicuttin (ICTP) will act as a Head of laboratory exercises.

The Course is intended as a training activity to introduce scientists and engineers to the latest VLSI design techniques. The Course contains a ground-up introduction to top-down digital design procedures using VHDL, a hardware design description language. The course includes hands-on laboratory work to which 60-75 % of the time is allocated. The laboratory uses public domain software for the exercises. As a complement the course also introduces scientists to FPGA and analogue design using Spice. Also it includes design for testability and a broad view of the available silicon technologies.

A basic knowledge of digital electronics is required.

The programme will consist of:

**Theory:**

- Introduction to LINUX
- VLSI Design using Alliance
- CMOS technology
- Design for testability
- Introduction to Analogue IC Design
- Digital Fundamentals
- Designing with FPGAs.

**Laboratory:**

- 70 hours of VLSI Design using Alliance
- Exercises

Scientists and students **from Central American countries only** that are members of the UN, UNESCO or IAEA can attend the Course. The main purpose of the Centre is to help research workers from developing countries through a programme of training activities within a framework of international cooperation. As the Course will be conducted in English, participants should have an adequate working knowledge of that language

**As a rule**, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee.

The **Application Form** obtainable from the ICTP WWW server: <http://agenda.ictp.trieste.it/agenda/current/fullAgenda.php?email=0&ida=a0373> (which will be constantly up-dated) or from the activity Secretariat. **It** should be completed and returned before **31 July 2004** to:

**Microprocessor Laboratory Second Central American Regional Course on Advanced VLSI Design Techniques (smr1590) (c/o Ms. S. Tanaskovic)**  
**the Abdus Salam International Centre for Theoretical Physics**  
**Strada Costiera 11, 34014 Trieste, Italy**

or

[mailto: smr1590@ictp.trieste.it](mailto:smr1590@ictp.trieste.it) (please save and send file attachments in RTF format)

**Telephone: +39-040-2249911      Telefax: +39-040-224600**

**e-mail: smr1590@ictp.trieste.it**

**ICTP Home Page: <http://www.ictp.trieste.it/>**

Trieste, January 2004

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**THE DEADLINE  
for requesting  
participation is:**

**15 July 2004**