

**SPONSORSHIP**

Dr./Ms./Mrs./Mr. \_\_\_\_\_  
is an employee of our institute, and her / his  
application is hereby sponsored. The applicant will  
be permitted to participate in the QIP Short Term  
Course on 'VLSI Architectures for Image and Video  
Processing Systems' at IIT Guwahati during 19-23 Sep.  
2011, if selected.

Date:

Signature of Sponsoring Authority

Designation:

Official Seal:  
\_\_\_\_\_

For participants from Government Departments and  
Industries:

DD No.:

Date:

Bank:

Amount:

Signature of the Applicant  
\_\_\_\_\_

**The duly filled-in application form should be  
mailed to:**

**Dr. Shaik Rafi Ahamed**

*Course Coordinator-QIP-STC-VLSIAIVPS*  
Department of Electronics & Communication  
Engineering  
Indian Institute of Technology Guwahati  
Guwahati - 781039, Assam, INDIA  
Tel: +91-9957029847 (M);  
Fax: +91-361-2690762

Scanned copy of the signed registration form may  
also be e-mailed at: **rafiahamed@iitg.ernet.in**

**ELIGIBILITY**

The course is open mainly to teachers of engineering  
colleges / technical institutions approved by the AICTE.  
No course fee is charged for participants sponsored by  
the AICTE approved institutions. Eligible participants  
from other government departments and industries have  
to pay a course fee of Rs. 2,500/- and Rs. 5,000/-  
respectively per person and they must meet the TA  
and DA from their own institutions/organizations.  
The payment is to be made by demand draft drawn  
on any nationalized bank in favor of **IIT  
Guwahati, payable at Guwahati.**

**BOARDING AND LODGING**

Boarding and lodging facilities will be provided for the  
selected candidates from the AICTE approved  
institutions in the student hostels or guesthouse  
(depending on availability) of the institute.  
Accommodation for other participants may be provided  
on request and charges have to be borne by the  
participants.

**FINANCIAL ASSISTANCE**

A limited number of participants from the AICTE  
recognized institutions will be eligible for AC-III tier  
round trip railway fare via shortest route and free  
accommodation in the hostel during the course period.  
Only those candidates attending the course for the entire  
duration will be eligible for TA and DA. Other  
participants will not be eligible for TA and DA.

**IMPORTANT DATES**

Last date of receipt of duly filled applications: **16  
August, 2011**

Intimation of selection **by e-mail: 24 August, 2011**

**Indian Institute of Technology Guwahati**

*Offers*

***Quality Improvement Programme***

***Short Term Course***

*on*

**VLSI Architectures for Image  
and Video Processing Systems**

**19-23 Sep. 2011**

***Course Coordinator:***

**Dr. Shaik Rafi Ahamed**



***Organized by:***

**Department of Electronics &  
Communication Engineering  
Indian Institute of Technology Guwahati  
Guwahati – 781039, Assam, INDIA**

The field of image and video processing has always been driven by the advances in very-large-scale-integrated (VLSI) technologies. Therefore, at any given time, Image/Video processing techniques impose several challenges on their implementations. These implementations must satisfy the enforced sampling rate constraints of the real-time Image/Video processing applications and must require less space and power consumption. This course addresses the methodologies needed to design custom or semi-custom VLSI circuits for these applications.

- Overview of Video compression
- Efficient Discrete Cosine Transform Architectures
- Systolic Array Architectures for Video Compression
- CORDIC based Video Compression Architectures
- Distributed Arithmetic based architectures for Video Compression.
- Wavelet VLSI Architectures
- VLSI architectures for motion estimation and compensation
- Low Power CMOS VLSI design

Experts from IIT Guwahati

Lecture Sessions  
Interactive Discussions and Presentations

Each registered participant will be provided with a comprehensive set of lecture notes in CD form.

The Indian Institute of Technology Guwahati, the sixth member of the IIT fraternity, was established in 1994 and academic programs commenced in 1995. At present the Institute has eleven departments covering the major engineering and science disciplines. With one of the most beautiful campuses in the continent, the infrastructure for teaching and carrying out advanced research is world class, being equipped with state-of-the-art engineering and scientific instruments. The IIT Guwahati campus stands on a sprawling 285 hectares of land on the north bank of the river Brahmaputra.

The campus is about 25 km from the heart of the city. With the majestic Brahmaputra on one side, and hills and vast open spaces on the other side, the campus provides an ideal setting for learning. The city of Guwahati is the gateway to North East India and connected with many major cities in the country by rail and air. The month of February is quite pleasant with an average temperature ranging between 15 and 20 degrees Celsius. Participants are advised to bring with them some woolen clothes. Buses (from Pan Bazar overbridge), auto-rickshaws and taxi are available from Guwahati City to the IIT Guwahati Campus.

## Application Form

1. Name (in block letters):
  2. Designation:
  3. Institution / Organization / University:
  4. Band Pay:
  5. Address for Communication:  
  
Pin Code:                      Mobile No.:  
  
Fax No.:                      E-mail:
  6. Highest Academic Qualification:
  7. Specialization:
  8. Experience (in years):  
    a) Teaching:                      b) Industrial:
  9. Amount of TA required as per entitlement mentioned in the brochure (only for teachers of the AICTE approved colleges):
  10. Choice of Accommodation:  
  
        Hostel                      Guesthouse
  11. Sex: Female / Male
- Kindly register my name for the QIP Short Term Course on “VLSI Architectures for Image and Video Processing Systems” to be held at IIT Guwahati.  
Place:  
Date:                      Signature of the Applicant