Electronics and ICT Academy at National Institute of Technology Patna

Setup under Scheme of Department of Electronics and Information Technology, (DeitY) Ministry of Communications and IT, Govt. of India

Proposes Expert Lectures Series on Distributed Systems

Duration: 1/06/2016 to 5/06/2016

Chief Investigator
Prof. (Dr.) Asok De, Director NIT Patna

Coordinators:
Dr. Akshay Deepak*
Dr. Dinesh Dash*

About NIT Patna
National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28. 01. 2004. The institute has highly qualified faculty of higher caliber in various disciplines. Institute offers B.Tech, M.Tech & Ph.D. programs in respective field of Engineering. National Institute of Technology Patna aims at setting out very high education standards and holds long record of academic excellence. Sciences and Technology with well-equipped laboratories.

About Electronics and ICT Academy
DeitY has sponsored a scheme entitled "Scheme of Financial Assistance for setting up of Electronics and ICT Academies". The objective of the above scheme is to set up seven (07) Electronics and ICT Academies as a unit in IITs, NITs, and IIITs etc. for faculty/mentor development/up-gradation to improve the employability of the graduates/ diploma holders in various streams, through collaboration of States/Union Territories with financial assistance from the Central Government. Electronics and ICT Academy would aim to provide specialized training to the faculties of Engineering, Arts, Commerce & Science colleges, Polytechnics etc., by developing state-of-the-art facilities. The Scheme has been approved on 14.11.2014. Subsequently, an Empowered Committee under the chairmanship of Secretary, DeitY has accorded approval for setting up Academy in NIT Patna (Bihar).

Course Objective
The objective of this course is to familiarize participants with theoretical and practical concepts of Distributed Systems.

Topics Covered
- Motivation: What is a Distributed System, and why is it important?
- Communication Models
- Time in a Distributed System – Causality, Logical Clock, Vector clock
- Correctness criteria: Liveness and Safety Properties
- Distributed Mutual Exclusion
- Distributed Snapshots
- Faults and Fault-tolerance
- Tolerating Crash failures and Byzantine Failures
- Recent Trends: How Clouds and Mobile Devices changed Distributed Computing

Course Outcomes
On completion of this course, participants are expected to be capable of understanding the basics of Distributed Systems, its applications and latest trends.

Invited Speakers
- Prof. Sukumar Ghosh, University of Iowa, Iowa, USA

* Assistant Professor, Dept. of CSE, NIT Patna
Expert Lecture Series on “Distributed Systems”
June 1st to 5th, 2016

1. Name: _____________________________

2. Educational Qualification: __________

3. Designation: _______________________

4. Name of the institute: ______________
   _____________________________________

5. Address for Communication: _________
   _____________________________________
   _____________________________________

6. E-mail: ____________________________

7. Phone: _____________________________

8. D.D No.: ____________ Date: ________
   Bank name: _________________________
   Amount (Rs.) ________________________

Date Signature

---

Venue: NIT Patna

How to Reach NIT Patna
The institute is situated on the south bank of holy river Ganga behind Gandhi Ghat. The Institute campus is 8 km from the Patna Junction railway station and 15 km from the Jai Prakash Narayan International Airport Patna.

For query contact:
Dr. Akshay Deepak (akshayd@nitp.ac.in)
Dr. Dinesh Dash (dd@nitp.ac.in)

Accommodation
We will provide hostel accommodation in the campus to the participants on payment basis (~INR 150/day).

---

Participants can also handover the draft or pay in cash at NIT Patna at the time of registration, however, such participants must confirm their participation by email by 31st May 2016.

The Completed registration form along with the draft should be send to
Dr. Akshay Deepak
Dept. of CSE, NIT Patna,
Ashok Rajpath
Patna -800005, Bihar

Last date of Registration
31st May 2016

Course Fees
- INR 1500/- for faculty
- INR 1000/- for Students and Research Scholars

The draft should be payable at Patna and in the name of The Director, NIT Patna.