

Copies of the registration form can be made, if necessary. Please send the filled in form to the Coordinator on or before **9<sup>th</sup> November 2009**. The details of the course & the form can also be downloaded from our institute website: <http://www.nitrkl.ac.in>

## CORRESPONDENCE

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### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Department of Computer Science & Engineering, NIT, Rourkela was established in 1982. Since its inception, the Department is under dynamic progress and is able to establish the reputation for imparting quality education both at undergraduate and graduate programmes. The department has well equipped modern laboratories such as Software Engineering, Information Security & Data Communication, Image Processing & Cluster Computing and Advanced Database Engineering Labs for pursuing research keeping in view of the technological advancement.



## **AICTE Sponsored Staff Development Programme On Discrete Mathematics & It's Application to Computer Science**

07<sup>th</sup> – 20<sup>th</sup> December 2009

Coordinators  
Dr. Durga Prasad Mohapatra  
Dr. Pabitra Mohan Khilar



Department of Computer Science & Engg

**National Institute of Technology**  
Rourkela-769 008, Orissa  
<http://www.nitrkl.ac.in>

## About the Course

Discrete Mathematics is a hybrid course. Its content is mathematics but many of its applications and more than half of its students are from computer science. Thus careful motivation of topics and previews of applications are important. This course aims at covering the important topics of discrete mathematics such as Sets and Propositions, Discrete Probability, Relation and Functions, Group Theory, Boolean Algebra, Graph Theory and their applications like Pigeon hole principle, Turing Machines, Error detection and correction and so many. The course will also cover the practical implementation of various algorithms in discrete mathematics through many laboratory classes.

## Course Contents

- Introduction to Discrete Mathematics
- Sets and Propositions
- Permutations, Combinations, and Discrete Probability
- Relation and Functions
- Graph Theory
- Modeling Computation
- Analysis of Algorithms
- Discrete Numeric Functions and Generating Functions
- Recurrence Relations and Recursive Algorithms
- Groups and Rings
- Boolean Algebras
- Applications of Discrete

## Resource Persons

The course will be offered by faculty members of NIT, Rourkela and other sister NITs, experts from IIT Kharagpur and experts from industry.

## Accommodation

Suitable accommodation will be provided to outstation candidates in the institute guest house on prior request.

## Registration & Fee Particulars

The course is free for faculty members of AICTE recognized colleges. Preference will be given to faculty members having experience less than five years. Also, preference will be given to the faculty members from Computer Science and Engineering, Computer Science and Application and Mathematics department of AICTE recognized engineering college.

Applications in prescribed format must reach the coordinator through proper channel on or before **9<sup>th</sup> November 2009**. The selected participants will be informed through E-Mail. The list of selected participants will also be displayed in the institute web site [www.nitrkl.ac.in](http://www.nitrkl.ac.in) after 9<sup>th</sup> November 2009.

Faculty members from AICTE recognized colleges will be reimbursed 3<sup>rd</sup> A/C to and fro railway fares through the shortest route. Besides, the participants will be provided free lodging & boarding inside the campus. The participants will be given course completion certificates on successful completion of the course.

For any queries the coordinator may be contacted.

AICTE Sponsored

Staff Development Programme On  
Discrete Mathematics & It's Application

to Computer Science

07<sup>th</sup> - 20<sup>th</sup> December 2009

## Registration Form

1. Name: .....
2. Designation: .....
3. Organization:.....
4. Address:.....  
.....  
.....  
Phone: .....Mob.....  
Fax: .....  
E-Mail: .....
5. Date of Birth: .....
6. Qualification: .....
7. Years of Experience: .....
8. Specializations if any: .....
9. Accommodation Required: YES/NO

Place:

Date:

Signature of the Applicant

Recommended and forwarded

Signature of Sponsoring Authority (With Seal)