

Copies of the registration form can be made, if necessary. Please send the filled in form along with the DD to the Coordinator on or before 10<sup>th</sup> June 2007.

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 1983. Since its inception, the Department is under dynamic progress and is reputed for imparting education both at undergraduate and postgraduate levels along with M.Tech (Research) and PhD programme. 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.



### Short Term Course on

## RECENT TRENDS IN OBJECT ORIENTED SOFTWARE DEVELOPMENT

25<sup>th</sup> - 29<sup>th</sup> June 2007

### Coordinators

Dr. Santanu Kumar Rath  
Dr. Durga Prasad Mohapatra



Department of Computer Science & Engg.  
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## ABOUT THE COURSE

The Object-Oriented Software Development (OOSD) method includes object-oriented requirements analysis, as well as object-oriented design. It is a practical method of developing a software system which focuses on the objects of a problem throughout development. Its focus on objects early in the development, with attention to generating a useful model, creates a picture of the system that is modifiable, reusable, reliable, and understandable - the last perhaps most important because the picture of a software system created by a development method must be an effective device for communication among developers, customers, management, and quality-assurance personnel.

The OOSD has become inevitable & more powerful due to the advent of the Unified Modeling Language (UML) in last couple of years & its rapid acceptance by the Industries & Academia. UML concept has been emerged as the standard notion for modeling. UML diagrams provide perspectives of the software systems to be developed & facilitate a comprehensive understanding of the system.

Apart from the use of UML diagrams, applying patterns will accelerate the mastery of object-oriented analysis & design. The course will help to provide foundation for designing large object-oriented software using 'RATIONAL ROSE', a case tool for object-oriented software design.

Certificates will be given to the participants after successful completion of the course under the "Continuing Education" programme of the Institute.

## RESOURCE PERSONS

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

## ACCOMMODATION

Suitable accommodation will be provided to outstation candidates in the Visitor's House on prior request.

## COURSE CONTENTS

1. OVERVIEW OF OBJECT-ORIENTED CONCEPTS
  - Basic Mechanisms
  - Key Concepts
  - Advantages of OOD
2. INTRODUCTION TO UML
3. UML DIAGRAMS
  - Use case diagram
  - Class diagram
  - Sequence diagram
  - Collaboration Diagram
  - Activity diagram
  - State Chart diagram
4. DESIGN PATTERNS
5. OBJECT-ORIENTED ANALYSIS
  - Overview
  - Use case model development
  - Domain Modeling
  - Identification Entity objects
  - Booch's Object Identification Method
  - Interaction Modeling
  - CRC cards
6. OBJECT-ORIENTED DESIGN
  - Overview
  - Construction of Interaction diagram
  - Construction of detailed Class diagram
  - Design of product in terms of clients of objects
  - Detailed Design
7. OOD GOODNESS CRITERIA
8. OBJECT ORIENTED DATABASE
9. RATIONAL ROSE: A Tool for OOSD

## REGISTRATION & FEE PARTICULARS

Applications in prescribed format and the course fee in the form of a cheque/DD drawn in favour of "Continuing Education, NIT, Rourkela" payable at SBI, NIT Branch, Rourkela-8 (Code-2109) must reach the coordinator on or before 10<sup>th</sup> June 2007.

### Fees:

Educational Institutions                      Rs. 3,000  
Industry and R&D organizations              Rs. 6,000

Registration fee includes boarding, lodging and course materials. Travel expenses shall be borne by the participants.

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### Registration Form

1. Name: .....

2. Designation: .....

3. Experience: .....

4. Organization: .....

5. Address: .....

.....

.....

Phone: .....

e-mail: .....

6. Accommodation Required (Put ✓): YES/NO

7. Registration Fee Details:

Amount: Rs. ....

DD Number:.....

Drawn on .....Branch

Place:

Date:

Signature of the Applicant

Signature of Sponsoring Authority  
(With Date & Seal)