

MHRD-AICTE SPONSORED SHORT-TERM COURSE

ON

**Advanced Technologies in Chemical Engineering with
Industrial Applications**

29th November –12th December, 2008



**DEPARTMENT OF CHEMICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769008, ORISSA**

COURSE OVERVIEW:

Growth of chemical and allied industries is inevitable as these are deeply connected with the basic needs and desire of the society. We are convinced that chemical engineering includes masters and creates most of the tools that play a key role in realizing this concept; the chemical engineers try to find the specific and most effective ways to maximize this effort. This striving includes formulation of new targets of individual branches of chemical engineering science and practice, developing new methods for achieving them, dissemination of relevant information among specialists from NIT Rourkela and IITs and supporting young engineers in entering and understanding the profession.

Chemical Engineering is no longer confined to chemical industry. It has already moved into biotechnology, nano technology, MEMS, analytical instrumentation, process monitoring and control, evolutionary computation, CFD (computational Fluid Dynamics) etc., and with time it is emerging as a service or utility discipline to the other engineering streams. Considering the increasing demand of various upcoming interfaces of Chemical Engineering with almost all other science and engineering disciplines, the following are the focus areas of the proposed course.

FOCUS AREAS

- **Design of advanced separation processes including the adsorption, membrane separation processes, reactive distillation, supercritical fluids and extraction by it, and surfactant induced separation. Application of these separation processes with case studies.**
- **Modeling and Simulation and Optimization with a special mention to non-traditional optimization technique like Differential Evolution (DE).**
- **Advanced fluidization Engineering.**
- **PINCH Technology**
- **Advanced Process Control with a special mention to model predictive control.**
- **Nano Technology and science.**
- **Exposure to the most celebrated simulators used in chemical process industries including ASPEN, PRO2 and FLUENT.**

PARTICIPANTS:

The Course is highly essential for professionals, academicians and industry people seeking to improve their technical skills, enhance their working relationships and gain heightened level of performance through assertiveness and influence.

REGISTRATION FEES

No registration fee for the faculties of AICTE approved institutes as this program is funded by MHRD-AICTE, Govt. of India.

All the participants from AICTE recognized institutions will be eligible for to and fro railway fare (third AC) via shortest route as per the AICTE norms and free board and lodging in the Guest House during the course period. Registration form in the prescribed format should reach the coordinator on or before 20.11.08. The registered participants will be notified in the institute web site www.nitrkl.ac.in on or before 22.11.08. Also an e-mail communication along with the schedule will be sent to the participants.

Important Dates:

Last date for submission: 20.11.08

Intimation of acceptance: 22.11.08

ACCOMODATION:

Accommodation will be provided in the Institute Guest House on twin-sharing basis for out-station participants.

CERTIFICATE

Certificate will be given to the participants after successful completion of the Course under the Continuing Education Programme of the Institute.

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(Coordinator)

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REGISTRATION FORM

Short-term course
On
Advanced Technologies in Chemical Engineering with
Industrial Applications

29th November –12th December, 2008

1. Name: _____

(Capital Letters)

2. Designation: _____

3. Organization: _____

4. Mailing Address: _____

Telephone _____

FAX _____

E-mail _____

Date

signature of the participant

Sponsoring Authority

Signature :

Name

Designation:

Organisation:

Date:

(seal)