



CSIR
INTEGRATED
SKILL
INITIATIVE



<https://nclsdp.ncl.res.in/>

CSIR-NCL SKILL
DEVELOPMENT
PROGRAM

"Industrial Catalysis"



ABOUT COURSE

Catalysts are the workhorses of chemical transformations in the industry. Approximately 85-90% of the products of chemical industry are made in catalytic processes. A catalyst offers an alternative, energetically favorable mechanism to the noncatalytic reaction, thus enabling processes to be carried out under industrially feasible conditions of pressure and temperature. Main aim of the course is to give in depth knowledge on theory and hands on experience in catalyst synthesis; catalyst characterization; catalytic batch reaction, its analysis and catalytic continuous reaction with online product analysis.

Course Co-Ordinator- Dr. Vrushali Jadhav

COURSE INSTRUCTORS

- Dr. C.S. Gopinath
- Dr. S.B. Umbarkar
- Dr. T. Raja
- Dr. V.V. Bokade
- Dr. C.P. Vinod
- Dr. K. Selvaraj
- Dr. Vrushali Jadhav
- Dr. Banu Marimuthu
- Dr. Sachin Nandanwar
- Dr. Varun Natu
- Dr. Kushal D. Bhatte
- Dr. Avishek Saha
- Mr. Ratnesh Kumar Jha



FOR WHOM

- Students
- Academic Researchers
- Industrial Professionals

COURSE CONTENT

Introduction to catalysts; types of catalysts; homogeneous and heterogeneous catalysts; different types of heterogeneous catalysts used in industrial batch and continuous processes; hands on experience in catalyst synthesis; types of synthesis methods and facility used; catalyst formulation; different types of catalyst characterization techniques; type of information generated from each characterization; interpretation of catalyst characterization to establish physico-chemical properties; in catalytic reaction in continuous reactor with online feed and product analysis. Hands on experience to carry out catalytic reaction in batch reactor and its analysis in GC/HPLC etc.

COURSE DETAILS

Duration- 5 Days

Dates- 11 Dec. - 15 Dec. 2023

No. of Seats- 25

Eligibility- M. Sc., B. E., B. Tech., M. E., M. Tech.

Course Fees -

Students - 5900 /-
Faculty - 29500 /-
Industrial Professional - 59000 /-
(The fees stated include 18% GST)
Accommodation-1 week with affordable charges

HOW TO APPLY

Application form is available at -

<http://www.ncl-india.org/files/SDP/Default.aspx>

Here is the reason why
WHY CHOOSE US



- More weightage on hands-on practice
- Interactive sessions
- Robust & sustainable training module
- Affordable fee structure
- Brief on career options
- Networking

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[@ncl.sdtp@ncl.res.in](mailto:ncl.sdtp@ncl.res.in)



CSIR-National Chemical
Laboratory, Dr. Homi
Bhabha Road, Pashan,
Pune-411008