



CSIR-INDIAN INSTITUTE OF PETROLEUM

(Council of Scientific & Industrial Research)

P.O. IIP Mohkampur, Haridwar Road,

Dehradun-248 005,Uttarakhand

Website: www.iip.res.in



Basic Skill Development Training on 'Industrial Aspects of Recombinant Biotechnology'

Introduction

With experienced and qualified staff and comprehensive state-of-the-art R&D facilities the institute maintains its leading position in conducting training programs for the personnel from refining, petrochemical, automotive, power and related user industry. More than 9000 personnel from India and abroad have been trained on different requirements.

As per the initiatives taken by the institute under 'CSIR-IIP Integrated Skill Development Training Programs' applications are invited from eligible **Uttarakhand state residents only** for training program on 'Industrial Aspects of Recombinant Biotechnology' sponsored by **Uttarakhand State Council for Science & Technology (UCOST)**.

Our Recombinant Laboratory is equipped with high end instrumentation facilities for genetic modification of bacteria and Yeast.

Objectives & Scope

Detailed introduction to extensive hands-on practice to enable participants handle genetic modification of bacteria and yeast.

Contents

Theory:

Fundamental and principles of Recombinant DNA Technology. Genetic modification of host, vector selection and cloning of gene in vector. Transformation of vector in host system. Expression of recombinant protein and characterization.

Practicals:

- Preparation of chemical and reagents solution for the cloning work to the higher precision.
- Insilico designing of clone and validation using clone manager software.
- Cloning of gene into a plasmid vector and transformation into host
- Techniques involves includes DNA extraction, Gel preparation and analysis, primer designing, PCR amplification and purification, restriction digestion, ligation, bacterial transformation. SDS PAGE

After successful completion

Participant will be able to handle the equipment regularly used in Recombinant Biotechnology laboratory for recombinant clone generation and expression like PCR, RT-PCR gel documentation, Bio-photometer, vacuum concentrator ,Gene pulser , Electrophoresis unit etc.

Pre-requisites

Educational qualification required (Biological area):
B. Tech/M.Tech/M.Sc/M.Pharm 20 – 35 years of age.
(Age/qualification relaxation as per **Govt. of India** Rules/discretion of **Director, CSIR-IIP**).

Who Should join

Uttarakhand resident having strong desire to excel in niche area of Biotechnology R&D experimental set-up, making carrier with companies already in the field.

Salient features of the program

- Theory: Practical :: 30 : 70
- Interactive sessions for in-depth knowledge sharing.
- Evaluation of trainees will consist of both Theory & Practical component.
- Certificates will be awarded on successful completion of the training.

How to Apply & Selection

- Candidates have to apply as per the application format in the given link below along with one set of self-attested documents attached .
- Selection of the candidates will be based on merit & interview (if required) to meet suitability for the course.
- All documents in original to be shown at the time of interview / enrolment.

Form download (PDF) <http://www.iip.res.in/skill/form19.pdf>

Form download (MS Word) <http://www.iip.res.in/skill/form19.doc>

Please send hard copy of application and documents at the following address:

Sh C D Sharma
Co-ordinator, Skill Development Training Program
CSIR-Indian Institute of Petroleum
Mohkampur, Haridwar Road
Dehradun 248005

You may also correspond, send soft copy of application at following e-mail:

e-mail: cdsharma@iip.res.in, skill@iip.res.in

e-mail: aniljain@iip.res.in

Contact phone nos.

Sh C D Sharma, Tel No 0135-2525950(O), M- 9412028789, 8630808928

Dr Anil K Jain, Tel 0135- 2525751(O), M-9897119578

Training venue :

CSIR-Indian Institute Of Petroleum

P.O.: IIP Mohkampur, Haridwar Road, Dehradun-248 005, Uttarakhand (India).

No TA/DA and accommodation for interview will be provided to the candidates.

Important dates

Last date for submission of Application	:	17/02/2020
Declaration of participant	:	20/02/2020
Commencement of course	:	24/02/2020

CSIR-Indian Institute of Petroleum, Dehradun