



## CSIR-INDIAN INSTITUTE OF PETROLEUM

(Council of Scientific & Industrial Research)

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

Website: [www.iip.res.in](http://www.iip.res.in)



### Basic Skill Development Training program on 'Computation Biology'

#### 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 for 'CSIR-IIP Integrated Skill Development Training Programs' applications are invited from eligible Indian nationals for the program on 'Computational biology'.

Our computational facility is equipped with range of tools and software to analyze biological sequences, genome data, identify putative coding genes and model functional proteins.

#### Objectives & Scope

Introduction to Bioinformatics to extensive hands- on practice in order to selectively enable data scientists/ research scholars to effectively handle and interpret biological data for genome assessment and manipulation.

#### Contents

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| <ul style="list-style-type: none"><li>• Introduction to bioinformatics and biological databases</li><li>• Data searches and pair wise alignments,</li><li>• Molecular phylogenetics</li><li>• Comparative genomics, Genome sequencing and assembly</li><li>• <i>In-silico</i> gene prediction and annotation, Gene Ontology analysis</li></ul> | <ul style="list-style-type: none"><li>• Primer designing for PCR amplification and cloning into host vector for protein expression</li><li>• Protein database searching, Sequence analysis</li><li>• Tertiary structure prediction, Homology modeling</li><li>• Structure validation and refinement, Docking and active site analysis</li></ul> |
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#### After successful completion

Participant will be able to handle the tools and software that are used in biological sequence analysis, genome sequencing , gene prediction, protein modeling and active site analysis.

#### Pre-requisites

Educational qualification required (Life Sciences)  
B. Tech/M.Tech /M.Sc  
**20 – 45** years of age.  
(**Age/qualification** relaxation as per Govt. of India Rules/discretion of Director, CSIR-IIP).

#### Who Should join

**Uttarakhand resident, who** wish to work and excel in handling biological data for genome assessment and manipulation.

### 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 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](mailto:cdsharma@iip.res.in), [skill@iip.res.in](mailto:skill@iip.res.in)

e-mail: [aniljain@iip.res.in](mailto: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

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