



## 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 on 'Analytical Chemistry, Tools and Techniques'

#### Introduction

With experienced and qualified staff and comprehensive state-of-art R&D facilities the institute maintains its leading position in conducting training programs for the personnel from refining industry, petrochemical industry, automotive sector, power plants and related user industry and has trained more than 8000 personnel from India and abroad 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 'Analytical Chemistry, Tools and Techniques'.

Our Analytical Sciences Division is equipped with range of analytical instruments beside manpower having wide-ranging working experience and extensive knowledge base. The participants will have the opportunity to acquire a broad working knowledge of various analytical testing/evaluation techniques.

#### Objectives & Scope

Training is aimed at providing in depth knowledge and hands on experience on various analytical techniques to those new to the R&D institute/industry or wish to develop their career further in the relevant QA/ QC area with more strengthened analytical approach.

#### Contents

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| <ul style="list-style-type: none"><li>• Basics of analytical chemistry</li><li>• Qualitative and quantitative analysis : Pre-requisites</li><li>• Various sample preparations</li><li>• Analytical approaches<ul style="list-style-type: none"><li>▪ Gravimetry</li><li>▪ Volumetry</li><li>▪ Physico-chemical characterization (including Petroleum analysis)</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Chromatography/Mass Spectroscopy ( GC, HPLC, GC-MS, LC-MS)</li><li>• Spectroscopy (UV-Vis, FTIR, NMR)</li><li>• Diffraction and morphology, XRD/XRF</li><li>• Analysis using ICP-AES/AAS, TGA, DTG</li><li>• Figures of merit, Errors in analysis, validation.</li></ul> |
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#### After successful completion

With exposure to advanced analytical instrumental facilities backed by theoretical clarity, a person will be able to develop precise evaluation approach for research and development activities/quality compliances by the refineries/ authorities besides running routine analytical tests depending upon his ability and dedication in learning the skill.

#### Pre-requisites

No pre requisites beside educational qualification being M.Sc. (Chemistry) those appearing in the final exam may also apply.  
**20 - 45** years of age.  
(Age/qualification relaxation as per Govt. of India Rules/discretion of Director, CSIR-IIP).

#### Who Should join

**Any Indian citizen** having desire to excel in the area of R&D/ Quality Control/Refinery QCs OR wants to acquire broad knowledge of Analytical Science through exposure to instrumental testing and evaluation for competitive examinations.

Salient features of the program													
<ul style="list-style-type: none"> <li>• Theory: Practical :: 30 : 70</li> <li>• Interactive sessions for in-depth knowledge sharing.</li> <li>• Evaluation of trainees will consist of both Theory&amp; Practical component.</li> <li>• Certificates /Skill cards will be awarded on successful completion of the training.</li> </ul>													
Contact for Registration	Course Fees / Terms and Conditions												
<p>Please send hard copy of application and documents at following address:</p> <p><b>Sh C D Sharma</b>  <b>Co-ordinator, Skill Development Training Program</b>  <b>CSIR-Indian Institute of Petroleum</b>  <b>Mohkampur, Haridwar Road</b>  <b>Dehradun - 248005</b></p> <p>You may also correspond, send soft copy of application at following e-mail:</p> <p><b>e-mail: cdsharma@iip.res.in</b>  <b>e-mail: aniljain@iip.res.in,</b></p> <p><b>Contact phone nos.</b>  <b>Sh C D Sharma, Tel No 0135-2525778, M- 9412028789,</b>  <b>Dr Anil K Jain, Tel 0135- 2525751(O), M-9897119578</b></p>	<p>A non-refundable course fee of Rs.15000/-(Rupees Fifteen Thousand only) for Student/unemployed candidate and Rs.75,000/-(Rupees Seventy Five Thousand only) for Company sponsored /employed candidate to be paid at the time of admission.</p> <p>Course Fee shall be paid through E-payment option.</p> <p><b>Bank Account Details facilitating e-transfer of Funds/Payment</b></p> <p><b>Name of Bank : State Bank of India</b>  <b>Name of the account holder : Director, Indian Institute of Petroleum, Dehradun.</b>  <b>Bank Account No : 30266912400</b>  <b>Branch : IIP Township, Mohkampur Dehradun., India</b>  <b>Contact Person : Dr. Anil K Jain</b>  <b>e-mail : aniljain@iip.res.in</b></p> <p><b>SWIFT Code : SBININBB380</b>  <b>11 Digit IFS Code : SBIN0002359</b>  <b>MICR No. : 248002007</b>  <b>GSTIN : 05AAATC2716R2ZK</b></p>												
How to Apply & Selection													
<ul style="list-style-type: none"> <li>• Candidates have to apply as per the application format in the given link below.</li> <li>• Selection will be made based on criteria after scrutiny of applications.</li> <li>• All documents in original to be shown on the interview/ selection day and one self-attested set of documents to be submitted on the date of interview/selection</li> </ul> <p>Form download (PDF) <a href="http://www.iip.res.in/skill/form18.pdf">http://www.iip.res.in/skill/form18.pdf</a>  Form download (MS Word) <a href="http://www.iip.res.in/skill/form18.doc">http://www.iip.res.in/skill/form18.doc</a></p> <p><b>Training venue</b> : 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.</p>													
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