



A constituent laboratory of the Council of Scientific & Industrial Research (CSIR), Government of India, CSIR-Indian Institute of Petroleum (CSIR-IIP) is devoted to multidisciplinary domains of research and development in the Energy sector. Areas of activity include petroleum refining, petrochemicals, biofuels, natural gas, alternative and clean energy, catalysis, adsorption, separation, CO<sub>2</sub> recovery and utilization, nanomaterials, biotechnology, IC engines, lubricants and combustion. CSIR-IIP offers globally competitive technologies and services for hydrocarbon, chemicals and automotive industries. It has close collaborations with other research and academic institutes/universities, both within the country and abroad, and an impressive track record of placements.

## **CSIR-IIP invites applications from bright and motivated candidates for the Ph.D. programme in Chemical/ Biological/ Physical Sciences and Chemical/Mechanical/Biotechnology/ Material Engineering, under the Academy of Scientific and Innovative Research (AcSIR). Essential Qualifications**

### **PhD in Chemical / Biological / Physical Sciences**

A Master's degree in Chemical Sciences / Chemistry / Physics / Biochemistry / Biotechnology / Microbiology / Environmental Sciences/Equivalent Life Sciences AND having a valid national level fellowship (JRF/ SRF of various funding agencies, e.g. CSIR, UGC, DBT, DST etc.) or any other equivalent fellowship like INSPIRE, RGNF etc.

### **PhD in Engineering**

(i) A Master's degree in Engineering or Technology following a four-year engineering/technology or 4/5 year science degree; or an integrated minimum-5-year M Tech degree; or equivalent.

AND

(ii) At least one of the following

- (a) Awarded a national-level fellowship (such as NET JRF) tenable at CSIR institutes
- (b) Meeting all the conditions required for eligibility for the CSIR-SRF
- (c) Meeting all the conditions for award of the INSPIRE fellowship (typically awarded to students ranked first in the University)
- (d) Meeting all the conditions stipulated by AcSIR for Project Assistants to register for a PhD
- (e) Meeting all the conditions stipulated by AcSIR for industry-sponsored students

CSIR Employees (Group III and Group IV) with above qualifications are also eligible to apply for admission to PhD in Science/Engineering, with a condition that they should have at least six years left for superannuation.

### **Areas of Research**

- Catalysis, Catalytic Processes, Analytical Methods Development
- Advanced Functional Materials, Adsorption and Absorption, Carbon Nanomaterials
- Biomass to Chemicals, Fuels and Energy, Algal Biofuels, Lignin Valorization through chemical, bio-chemical, thermal conversions, Life cycle analysis
- Petrochemicals, Green Chemistry, Specialty Chemicals, Lubricants and Additives, Solvent Extraction
- CO<sub>2</sub> to Fuels, Chemicals and Energy, Waste-to-Wealth (Waste Plastics, e-waste), Hydrogen energy
- Petro-refining Processes, Hydroprocessing, Heavy Oil Processing, Reaction Engineering, Fluid Catalytic Cracking, Mass Transfer, Process Intensification,
- Material characteristics, Lubricant materials, Tribology, High entropy alloy
- Photovoltaic (PV), Batteries, Solid state hydrogen storage materials

More details can be found at [www.iip.res.in](http://www.iip.res.in)

Interested candidates who fulfil the eligibility criteria may apply online for the Ph.D. programme at <http://acsir.res.in>. Select "CSIR-IIP" as the CSIR lab preference in the pull-down menu of application form. For any query please contact at [coordinator.iip@acsir.res.in](mailto:coordinator.iip@acsir.res.in)

**Last date for application submission for August 2023 semester is March 20, 2023**

