

## Membership Fee Structure

The fee would be Rs. 2 lakhs + Service tax annually for the Charter/Full Member, and Rs. 50 Thousand + Service tax annually for MSME Member. All companies must sign up till June 2021, though fees would be payable annually.

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## Contact

### NCPRE

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IIT Bombay



National Centre for Photovoltaic  
Research and Education

# Industry Affiliate Program

## Introduction

The National Solar Mission 2022 is one of the most important technological-cum-societal initiatives announced by the government in recent years. It has simultaneously increased the awareness and use of clean energy, transformed life in rural areas, and also kick-started a major new industry segment. The National Centre for Photovoltaic Research and Education (NCPRE) was set up by the Ministry of New and Renewable Energy at IIT Bombay in 2010.

NCPRE is now considered one of the top institution in India in the field of Photovoltaic (PV) research and education. NCPRE has successfully delivered all the requirements of Phase I and is currently in it's Phase II. The "Industry Affiliate Program" was initiated to build a strong relationship between the research community and solar industry. In Phase II, NCPRE will continue to work with Industry partners on collaborative projects that can help solve technical challenges faced by the industry.

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## Highlights of the Industry Affiliate Program

The Industry Affiliate Program offers many benefits to industry partners such as:

- Use of lab facilities and equipment set up by NCPRE at a reduced cost
- Sharing of knowledge from experts in the respective fields
- Free access to continuing education programs for the industry.
- Access to an annual "Industrial Affiliate Day"
- Free use of IIT Bombay Library for reference as a "Corporate Member"
- Access to masters' and Ph.D. theses in PV and related areas.
- Ability to sponsor post-graduate students' scholarships and project (at cost)
- Nominate staff to work at NCPRE as intern(s).
- Priority Status for Technical Collaboration Project

## Activities at NCPRE

**NCPRE has research activities in the areas of**

- Si cell Lab
  - Pilot line available for process development, optimization and characterisation
  - Power loss analysis
  - Development of PERC (Passivated Emitter Rear Contact) and IBC (Interdigitated Back Contact) cells
  - Simulation of solar cells
- Module Lab
  - Material Testing and Characterisation
  - Encapsulant, Backsheet, Glass
  - Optical, Thermal, Mechanical, Chemical Properties
- Module Performance & Quality
  - IV Measurement, Power degradation studies
  - Failure Analysis using EL, & PL images, IR and other tests
  - Impact of Soiling on performance
- Module Reliability
  - Accelerated aging tests in environmental chambers
- Power Electronics
  - Lab Kit for education or research purposes
  - Standalone PV System for rural applications
  - Residential grid feeding inverter
  - Electric motor design and its controller
- Energy Storage
  - Li-ion battery development
  - Na-ion battery chemistry
- Modelling and Simulation
  - Power degradation of Rooftop and ground mounted
- Tool development

For details of activities, please see [www.ncpre.iitb.ac.in](http://www.ncpre.iitb.ac.in).

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## Who can become a Member?

Membership is by a company, an organization, or a trade association. The IAP will have a two-tiered structure, with members in two categories.

1. Charter/Full Member
2. MSME (Micro, Small & Medium Enterprises) Member

To become an "Industry Affiliate" of NCPRE, a company would have to pay an annual membership fee and sign an MOU with IIT Bombay.

## Structure of the Industry Affiliate Program

The functioning of NCPRE's Industry Affiliate Program will be overseen by a governing council, consisting of representatives of IAP full members and NCPRE investigators. The Governing Council will be able to suggest areas of research for NCPRE (consistent with the deliverables projected to MNRE). An Executive Committee, appointed by the Council, will make recommendations on fees, benefits, areas of research by IAP, etc.

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## Benefits of Membership

The membership benefits are listed below for both Full Members as well as MSME Members:

Sr. No.	Member Benefits	Charter/Full Member	MSME Member
1.	Access to an annual NCPRE " Industry Affiliate Day," where recent work at NCPRE would be shared with affiliates	3 persons	2 persons
2.	Use of facilities set up at NCPRE on a reduced rate basis	✓	✓
3.	Free use of IIT Bombay Library for reference as "Corporate Member"	✓	✓
4.	Access to Masters' and doctoral thesis in PV and related areas arising out of work carried out under NCPRE	✓	✓
5.	Waiver of registration fees for PV Short Course/ Workshops	4 persons	2 persons
6.	Acknowledgement as an "NCPRE Industry Affiliate" on NCPRE website	✓	✓
7.	Ability to sponsor post graduate students scholarships and project (at cost)	✓	✓
8.	Eligible to nominate one expert on the Governing Council	✓	×
9.	Nominate their staff to work at NCPRE as intern(s).	✓	×

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