



# INDIAN INSTITUTE OF TECHNOLOGY BOMBAY POWAI, MUMBAI 400076.

**Advertisement No.: IRCC/EXT018/2023**

## **Job Title**

Senior Project Research Scientist

## **Job Reference Number**

50390018

## **Application End Date**

09.02.2023

## **Type of Employment**

Proj. Staff Contract

## **No. of Position(s)**

1

## **IITB Project Recruitment:**

Project title: Recycling of Solar Cells Recovered from Delaminated Modules

About the project: Photovoltaic modules work for almost 30 years before they are no longer usable due to reduced efficiencies. As the installation of PV modules increases exponentially, the End-Of-Life modules are also expected to rise by the same proportion shortly. Despite the obvious environmental benefits, it is difficult for PV module recycling to be widely accepted due to economic constraints, namely, the low value of recovered material and high recycling cost. The lack of PV-specific disposal guidelines, technical know-how, and low industrial involvement further add to this burden. Thus, decommissioned panels are primarily being dumped in landfills or, at best, being sent to glass recyclers.

Following are the goals of the project

- Delamination of mini modules by pyrolysis, exhaust treatment.
- Designing and commissioning a Larger Batch Scale Reactor design for extraction of Ag, Al, and Si from broken solar cell fragments with the increased Input batch size of Approximately 250 gm, Keeping recovery products under focus, i.e., midsize Pilot-scale process development.

## **Essential Qualifications & Experience:**

PhD with minimum 4 years relevant experience

OR

MTech/ME/MDes/MBA or equivalent degree with minimum 8 years relevant experience

OR

BTech/BE/MA/MSc/MCA or equivalent degree with minimum 10 years relevant experience

## **Job Profile:**

The person should have expertise in PV waste management, Chemical processing, Planning and execution of experiments, Project management.

The expected duties include: Planning of experiments, designing process equipment, contacting equipment manufacturers, hands-on experimentation, materials characterization, data analysis, mentoring of master

## **Pay Details:**

Level PR-O3: Salary range from Rs.58800 to Rs 109200 + Rs.10000.00/- Out Of Campus Allowance

(if applicable) p.m.

***General information:***

The position is temporary for a period of 1 year and tenable only for the duration of the project. The appointment is for time bound project and the candidate is required to work mainly for the successful completion of the project. The selection committee may offer lower or higher designation and lower or higher salary depending upon the experience and performance of the candidate in the interview.

Candidates called for interview will be required to attend at his/ her own expenses.

For any queries/clarification please contact: [recruit@ircc.iitb.ac.in](mailto:recruit@ircc.iitb.ac.in)