

## Advertisement for Junior Research Fellows (JRF) Under DST Funded Project

(Online Interview on 06/06/2021)

Applications are invited from motivated and eligible candidate for **Junior Research Fellow** position (01) in the research project entitle “***Wet-chemical approach to fabricate visible-near infrared light harvesting photoelectrodes***”. The project is dedicated to developing nano-heterostructures photoelectrodes to harvest the wide solar spectrum for efficient water splitting.

The major objectives of the project are to:

- Develop a low temperature solution process to fabricate partially surface doped ZnO /TiO<sub>2</sub> nanowire films.
- Synthesis CQDs, GQDs and WS<sub>2</sub> sheets using wet-chemical approach.
- Develop facile process for surface modification and doping of CQDs, GQDs and WS<sub>2</sub> nano sheets to control the surface functionality and bandgap.
- Fabrication of hybrid photoelectrodes and investigation of optical and electrical properties
- Study of photoelectrochemical water splitting properties and investigate light harvesting mechanism.
- Explore other VIS-NIR light harvesting photocatalysts for PEC water splitting application.

**Stipend:** The amount of JRF fellowship will be as per DST norms.

**Duration:** Position is available till 19<sup>th</sup> July 2021 or end of the project.

**Eligibility:** M.Tech. in Materials Science and Engineering/ Nanotechnology/Applied Physics or relevant area **OR** M.Sc. in Physics/Applied Physics+ Valid GATE Score

**Desirable:** 02 Year experience in nanomaterials synthesis and characterization. Knowledge in electrochemistry and nanoscience.

**How to Apply:**

Interested candidates are requested to submit a detailed CV to **Dr. Ajay Kumar Kushwaha**, PI of Project and Assistant Professor, Department of Metallurgy Engineering and Materials Science, IIT Indore via e-mail: [akk@iiti.ac.in](mailto:akk@iiti.ac.in) with the subject line “***JRF Application for DST project***” latest before **5 pm; June 5, 2021**.

**Date of Interview: 06/06/2021 after 2pm**

Online via google meet; the link will be shared to short listed candidates and only shortlisted candidates will be intimated by email for an interview.

Note: The Institute reserves the right to fill or not to fill the post advertised.