



Assistant Professor, Mechanical Engineering 3455 G. G. Brown, 2350 Hayward St., MI 48109 rbchan@umich.edu | (734) 674-9049

1 Postdoctoral Fellow Position Immediately Available! at a DOE Energy Frontier Research Center



Topic: Physics-based and Data-driven Modeling for Photocatalysis

Location: University of Michigan
PI: Rohini Bala Chandran
Start date: ASAP

Term: Full-time, 1 year (renewals possible) **Location:** Ann Arbor, Michigan (in-person only)

Salary: \$60,000 - \$65,000 (benefits eligible, open to negotiations for senior personnel with experience)

<u>Professor Bala Chandran</u> at the University of Michigan in the Department of Mechanical Engineering invites applications from highly motivated and talented individuals for a Postdoctoral Research Fellowship. This is a full-time, one-year position, with possible extensions based on performance and funding availability. The candidate will lead and propel the charter for the University of Michigan team to develop multiscale, multiphysics models to understand and evaluate optical, electrochemical, and photocatalytic behavior of solar water splitting reactors for hydrogen production.

The successful candidate will lead and contribute to research activities in a recently funded Energy Frontier Research Center through the US Department of Energy – Ensembles of Photosynthetic Reactors. This center's mission is to understand, predict, and control the activity, selectivity, and stability of solar water splitting nanoreactors in isolation and as ensembles. This project is highly multidisciplinary in nature and the candidate will have great opportunities to interact with a diverse group of scientists from various universities and national labs. The ideal candidate will have experience in model development to study semiconductor photophysics, optics/radiative transport modeling, catalysis, electrochemistry, or related areas.

Desired training, technical skills, experience, knowledge, and skills are:

 <u>Ph.D.</u> in Mechanical/Chemical/Electrical/Materials Science and Engineering, Chemistry, Physics, or related disciplines



ROHINI BALA CHANDRAN

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- Required experience: Training and background in multiphysics modeling related to any one or a combination of the following topics: optics, semiconductor physics, photocatalysis, and electrochemistry.
- Required experience: Programming knowledge and capabilities using MATLAB/Python/C++.
- <u>Knowledge</u> to use commercial multiphysics modeling software (COMSOL, ANSYS) to model (photo)electrochemical and semiconductor systems will be considered a plus.
- Require excellent written and oral communication skills.
- Strong team player with a growth mindset; willingness to hone leadership and mentorship skills through
 mentoring graduate and undergraduate students, assisting with technical reports, and helping to
 coordinate other projects in related areas.

To apply, please send 1 compiled PDF file to rbchan@umich.edu with [EPN-Postdoc] in the subject line with the following details:

- 1. Cover letter describing your relevant experiences, how it connects with the required skills sets, publications, and your preferred start date.
- 2. Curriculum vitae.
- 3. 2-3 references (name, title, affiliation, email address, and phone number) (letters are not required)

The University of Michigan is an equal opportunity employer.