



POSTDOCTORAL FELLOW

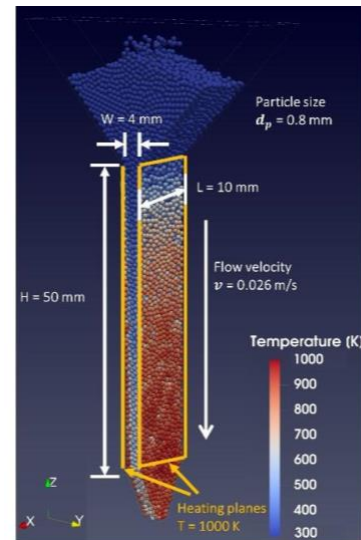
Experiments for Radiative Transport in Multiphase Gas-Solid Flows

Start date: Sep 1, 2022 (flexible)
Term: One year, full-time, with optional 1-year extension
Location: Ann Arbor, Michigan (in-person only)
Salary: \$63,000 (benefits eligible)

Professor Bala Chandran, based at the Mechanical Engineering Department in the University of Michigan, invites applications for a 1-year Postdoctoral Research Fellowship. The fellow will lead a research project in *experimental thermal and fluid sciences*, focusing on developing measurement techniques to evaluate radiative transport and heat-transfer in multiphase gas-solid flows. This fundamental problem has broad applications in concentrated solar power, thermal energy storage, thermochemical reactors for fuels production and carbon capture, and in laser-based additive manufacturing processes.

To be considered for this position, candidates should have received a PhD in Mechanical, Chemical, or Aerospace Engineering, or a similar field. analysis, or a similar field. Desired training, technical skills, experience, knowledge, and skills are:

- Strong training and background in experimental fluids and heat-transfer is required.
- Require experience with prototyping, design, and testing for thermal systems. *Other technical skills:* experience with multiphase, gas-solid flows, optical measurements, and sensor development; pyrometry and thermal imaging
- Knowledge to use commercial software (COMSOL, ANSYS) to model flow, heat and mass transfer will be considered a plus.
- Excellent written and oral communication skills
- Strong team player with 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.



The successful candidate will join a cooperative group of PhD, MS, and undergraduate researchers in Dr. Bala Chandran's [TREE Lab](#). Our work related to this topic has been recently [published](#) and in [pre-print](#). Research activities will involve both fundamental and applied research components, with the latter involving interfacing with national labs and industrial collaborators working on related topics.

To apply, please send 1 PDF file to rbchan@umich.edu with [Radiation] 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.