Opportunity Title: MFIX-Exa Computational Scientist-PGRP
Opportunity Reference Code: NETL-2018-PGRP-Musser-1

Organization National Energy Technology Laboratory (NETL)

Reference Code NETL-2018-PGRP-Musser-1

How to Apply A complete application consists of:

- An application
- Transcripts – Click here for detailed information about acceptable transcripts
- Two educational or professional references

All documents must be in English or include an official English translation.

Please send a CV to jordan.musser@netl.doe.gov.

If you have questions, send an email to NETLadmin@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 3/31/2019 11:59:00 PM Eastern Time Zone

Description Through the Oak Ridge Institute for Science and Education (ORISE) this posting seeks candidate with an advanced degree to apply for an appointment to develop and implement algorithms for computational fluid dynamics-discrete element method (CFD-DEM) on exascale high performance computers at NETL. NETL is a multi-disciplinary, scientific and technical-oriented national laboratory. NETL's Research and Innovation Center (RIC) conducts research to evaluate environmental impacts and risk assessments associated with domestic energy resource development.. Opportunities are available immediately, but there is flexibility in start dates.

The specific assignments include: code profiling, algorithm development and implementation, writing reports/papers and making presentations to report the results of the research. The development team is geographically disperse making excellent communication skills a must.

Qualifications The ideal candidate will hold a PhD in computer science, mathematics, or engineering and have knowledge in CFD-DEM, and/or molecular dynamics (MD) code development. Exceptional postmasters candidates will also be considered for this position. Programming knowledge in C++, Fortran, C, or another programming language is required. Knowledge with parallel computing, including MPI and OpenMP is required. Knowledge with GPU programming is highly desired. Familiarity with MFIX (www.mfix.netl.doe.gov) and multi-phase flow is not required.

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Eligibility Requirements

- **Degree:** Any degree .
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (2 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (2 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
  - **Social and Behavioral Sciences** (27 👁)

Affirmation

I certify that I:

- Have an earned or will receive a doctoral or master's degree by appointment start date.

OR

- Have received the degree no more than three years before the date of application (postmasters' applicants).

OR

- Have received the degree no more than five years before the date of application (postdoctoral applicants).