Opportunity Title: Post-Graduate Combustion Engineer/Scientist (applied laser diagnostics)
Opportunity Reference Code: NETL-2019-PGRP-Bedick-1

Organization National Energy Technology Laboratory (NETL)

Reference Code NETL-2019-PGRP-Bedick-1

How to Apply A complete application consists of:

- An application
- Transcripts
- Two educational or professional references

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

Please send a CV to Dr. Clinton Bedick (Clinton.bedick@netl.doe.gov.)

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

Application Deadline 9/1/2019 11:59:00 PM Eastern Time Zone

Description Through the Oak Ridge Institute for Science and Education (ORISE) this posting seeks a post-masters or post-doctoral researcher to apply for an appointment in the area of applied laser diagnostics in high-speed, reacting flows. NETL is a multi-disciplinary, scientific and technical-oriented national laboratory and the U.S. Department of Energy's primary lab supporting fossil fuel-based energy research.

Pressure gain combustion through detonation technologies such as a Rotating Detonation Engine (RDE) offers the potential for significant efficiency gains when used as a replacement for conventional constant pressure combustion in a Gas Turbine Engine. The learning objectives of this opportunity will focus on the development and application of advanced laser diagnostics techniques including PLIF, PIV, and TDLAS in highly dynamic environments such as an RDE. Application of developed techniques to other energy conversion technologies within the RIC portfolio may also be of interest (oxy-combustion, MHD/DPE, sCO2).

Qualifications An ideal candidate will have demonstrated completion of coursework pursuant to a Master's or PhD in science or engineering. The candidate will research for a period of 1 year, with the possibility of extending that appointment.

An ideal candidate will have a strong background in thermodynamics, fluid mechanics, and combustion, along with specialized experience in the area of applied laser diagnostics.

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 👁)

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- **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).