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| **TITLE:** | University Coal Research Summer Intern |
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| **DEPARTMENT:** | U.S. Department of Energy/National Energy Technology Laboratory (NETL) |
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| **NETL CONTACT:** | Omer Bakshi; omer.bakshi@netl.doe.gov |
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| **DUTY LOCATION:** | Pittsburgh, PA |
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| **LEVEL:** | Undergraduate; Masters Students |
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| **POSITION**  **INFORMATION:** | 10-week summer internship appointment; full time (40 hours per week) |
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| **CLOSING DATE:** | 02/28/2018 |
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| **WHO MAY BE**  **CONSIDERED:** | United States Citizens |

**SUMMARY:**

The University Coal Research Fellows Program (UCRFP) is a pilot program that will allow undergraduates and masters students to engage in collaborative research with internal scientists at NETL’s Research and Innovation Center (R&IC). NETL will be seeking two summer interns to assist in the following research area:

**Surface Acoustic Wave (SAW) Based Sensors:** NETL R&IC has a long history in the development of thin film functional sensor layers and has also performed research in the integration of SAW sensors for temperature and gas sensing in high-temperature oxy-fuel combustion applications. Interns will have the opportunity to collaborate with in-house researchers to develop functional thin film materials that will enable high-temperature SAW sensor operation within gas streams relevant to countless energy, aerospace, and industrial applications (including H2, O2, N2, CO, CO2, CH4). Interns will also assist in the fabrication, characterization, and harsh-environment processing of thin film materials. Preferred candidates will have (**1**) experience with materials science/thin film analytical techniques, such as SEM, XPS, UV-Vis, or resistivity measurements, (**2**) be capable of data analysis involved in these techniques, and (**3**) demonstrate basic knowledge of the electronic, optical, and/or structural properties of solid state materials. Proficiency in analysis or modeling software (MATLAB, Mathematica, COMSOL) is a plus. The primary duty station will be at NETL’s Pittsburgh facility for a ten (10)-week period.

**HOW TO APPLY:**

Applicants should apply through the Oak Ridge Institute for Science and Education (ORISE) program. The ORISE Program provides opportunities for undergraduate students, recent graduates, graduate students, postdoctoral researchers, and faculty researchers to apply classroom knowledge in a real-world setting to learn about NETL Research and Innovation Center’s (R&IC) core mission areas.

* Interested applicants should complete the online application at <http://www.orau.gov/netl/>.
* In the online application **list** OMER BAKSHI **as your requested mentor.** This will associate your application with this research opportunity. Please send a CV to [omer.bakshi@netl.doe.gov](mailto:omer.bakshi@netl.doe.gov).
* If you have additional questions please contact Patricia Adkins-Coliane, [Patricia.adkins-coliane@netl.doe.gov](mailto:Patricia.adkins-coliane@netl.doe.gov), who is the NETL Graduate Education Program Manager.