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| **TITLE:** | Environmental Engineering/Microbiology |
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| **DEPARTMENT:** | U.S. Department of Energy/National Energy Technology Laboratory (NETL) |
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| **NETL CONTACT:** | Djuna.Gulliver@netl.doe.gov |
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| **DUTY LOCATION:** | Pittsburgh, PA |

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| **ACADEMIC LEVEL:** | **X** | PhD |  | MS |  | BS |  | Undergrad |  | Faculty |

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| **POSITION**  **INFORMATION:** | 1-year appointment; full time (40 hours per week) with the possibility of extension |
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| **CLOSING DATE:** | March 31, 2018 |
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| **WHO MAY BE**  **CONSIDERED:** | United States Citizens, LPRs, & Foreign Nationals with appropriate approval which includes F-1 OPT with EAD (STEM extension not valid), J-1 Exchange Visitor, and LPR with EAD |

**SUMMARY:**

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| Through the Oak Ridge Institute for Science and Education (ORISE) this posting seeks a full-time postdoctoral researcher, interested in participating as part of the geologic and environmental systems focus area research team at the National Energy Technology Laboratory (NETL). NETL is a multi-disciplinary, scientific and technical-oriented national laboratory. NETL’s Research & Innovation Center (RIC) conducts research to evaluate environmental impacts and risk assessments associated with domestic energy resource development.  CO2 utilization is likely to be part of a comprehensive strategy to minimize the atmospheric release of greenhouse gasses. One potential CO2 utilization technology, termed microbial electrosynthesis, is a process that uses water and electrodes to convert CO2 into chemicals and/or fuels. A thorough characterization of the microbial processes governing microbial electrosynthesis and non-microbial factors critical to optimal reactor performance will result in a strategy for technology development and scale-up.  CO2 storage is also likely to be part of the strategy to mitigate greenhouse gas release. This CO2 exposure will likely alter native microbial populations that may affect the water quality parameters, yet knowledge of the effect of CO2 on microbial communities remains limited. A need exists to understand how a microbial community will phylogenetically and functionally change within CO2 storage environments. The CO2 utilization team and carbon storage team is looking to recruit an individual who is able to perform anaerobic bioreactor-based studies to promote conversion of CO2 into chemical products, and perform metagenomic and metatranscriptomic analyses to characterize microbial electrosynthesis systems and carbon storage systems.  Applicants for this position must have a Ph.D. from an accredited institution in an applicable science and/or engineering field, such as environmental engineering, microbiology, or biochemistry. Applicants must also demonstrate knowledge of and have experience with metagenomics, metatranscriptomics, and bioinformatics. Familiarity with microbial electrosynthesis systems, electrochemistry, anaerobic microbiology, and/or subsurface microbiology is preferred. |  |

**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** **Djuna Gulliver as your requested mentor.** This will associate your application with this research opportunity announcement. Please send a CV to [Djuna.Gulliver@netl.doe.gov](mailto:Djuna.Gulliver@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.