Full Time, Temporary, Electronics/Electrical Postdoctoral Appointee

What Your Job Will Be Like
We are seeking an innovative and passionate individual to work as an Electronic/Electrical Engineer Postdoc. You will participate in our efforts to develop solutions for electrical and electromechanical systems in extreme, harsh, high-temperature environments. Join our diverse, multi-disciplinary, and energetic team of experts to help develop state of the art technology. You will have the opportunity to contribute to and lead R&D activities that directly benefit national security. You will have opportunities to grow your network with leading researchers from multiple disciplines, expand your publication history, and explore internal and external funding opportunities that can lead to further career development.

On any given day, you may be called on to:
- Develop creative and cutting edge, experimental high-temperature electronic and electromechanical systems for drilling, logging and monitoring;
- Perform test design, evaluation and publication of high temperature electronic component performance (data processing devices, ultracapacitors, passive components, experimental devices);
- Develop high-speed, high temperature data transfer methods (hardware, firmware, software);
- Perform full suite engineering development including conceptual idea generation, design, fabrication, implementation, field testing, and performance analysis of electronic and electromechanical systems;
- Participate in new, creative research areas using state of the art technology, interact closely with customers, and be afforded the opportunity to develop, grow and lead projects of national importance.

Qualifications We Require
- PhD in Electrical Engineering or relevant STEM discipline;
- Experience in board level analog and digital circuit design, fabrication, troubleshooting, and testing of electrical and/or electromechanical systems;
- Experience with programming and using microcontrollers, and/or digital signal processors, and/or Field Programmable Gate Arrays (FPGAs);
- Only U.S. persons (citizens, lawful permanent residents, asylees or refugees) are eligible for consideration.

Qualifications We Desire
- Strong debugging/problem-solving skills and willingness to learn new skills and be creative as projects require;
- Demonstrated ability to independently determine and develop innovative approaches to solutions to a diverse range of problems;
- Excellent oral and written communication skills, including technical writing;
- Strong drive to analyze data and publish in peer-reviewed journals;
- Strong interpersonal and teamwork skills with the ability to perform in a high functioning environment;
- Familiarity with one or more electrical design/layout software packages such as OrcAD, EagleCAD, Synplicity, PSpice, etc.;
- Familiarity with Silicon-on-Insulator (SOI) and Silicon Carbide (SiC) technologies;
- Knowledge of board layout and/or die/board level packaging practices;
- Proficiency with SolidWorks and/or other mechanical CAD software.

About Our Team
The Geothermal Research Department is an organization that delivers unique solutions for customers who require components and systems capable of operating in harsh and often high-temperature environments. The historical mission of the department was to address technology needs related to the development of geothermal energy (a baseload renewable energy resource); in particular accessing, monitoring and engineering of geothermal resources in subsurface geologic environments. This mission continues, but the capabilities of the organization have also been leveraged to address other issues of national importance. Current activities are broad in scope and require the efforts of multidisciplinary technical teams with expertise in mechanical engineering, drilling technologies, electronics, geosciences, materials, sensors, and explosives/propellants. Our customer base spans a wide variety of governmental and private sponsors, and we work closely with the geothermal power industry, oil & gas developers, service companies, other national laboratories and academia. In addition, the department maintains and continually updates a wide variety of unique testing capabilities for evaluation of technologies in simulated downhole environments.