Opportunity Title: Power Electronics and Electric Machinery Group (PEEM)/Electrical Post Bachelor's Research Associate
Opportunity Reference Code: ORNL15-34-EESRD

Organization	Oak Ridge National Laboratory (ORNL)
Reference Code	ORNL15-34-EESRD

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Description The Post-BS Research Assistant will assist the POC in the processing, modeling, and characterization of electronic packaging materials for automotive applications. Those materials would include, but not restricted to, interconnect, dielectric, and encapsulant materials used in power electronic modules. It would be 12-month contract (with possible extension up to 24 months if of mutual interest to the POC and student). Experiences would likely consist of: printing and sintering optimization of sinterable silver for interconnects, thick film and enamel processing, and encapsulant processing, and characterization of their microstructures and mechanical and thermal and electronic responses. Depending on available funding, the Post-BS Research Assistant would be encouraged to attend one conference to present his or her work. Lastly, the Research Assistant will be afforded the opportunity for independent study (e.g., 10% of their time) to pursue research of mutual interest to them and the PI.

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Qualifications Bachelors of Science in Ceramic Engineering

Experience in the following:

- Powder Characterization: XRD, TGA/DTA, Surface Area, Skeletal and Bulk Density, PSD
- Forming Processes: Spray Drying, Tape Casting, Isostatic Pressing, Dry Pressing, Slip Casting
- Sample Analysis: Rheology, Mechanical Testing, SEM, Sintering
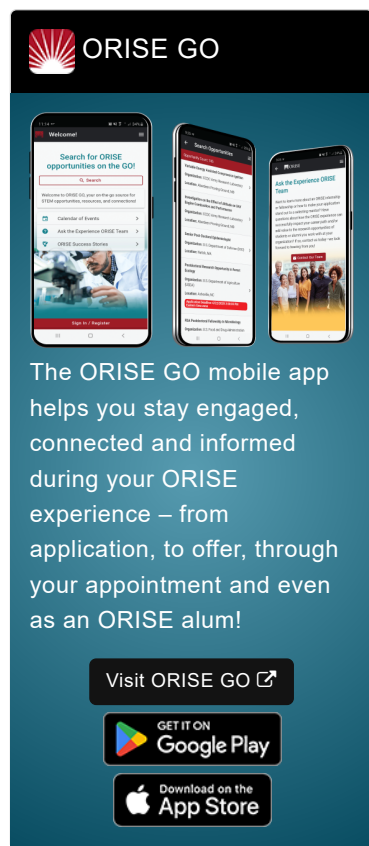
GPA of 3.0/4.0 is preferred.

Applicants cannot have received the most recent degree more than three years prior to the date of application and must complete all degree requirements before starting their appointment.

This ORNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

Eligibility Requirements
- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree received within the last 36 month(s).
- **Overall GPA:** 3.00
- **Academic Level(s):** Post-Bachelor's.
- **Discipline(s):**
  - **Engineering** (5 👁)

Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.