

Senior Radiation Effects Engineer

Responsibilities:

This position will be located in Draper Odon, IN office. The ideal applicant is a senior subject matter expert in radiation device effects and implications on the resulting system design. Relevant areas to cover include transport of hostile threat and natural space radiation environments to determine energy deposition in materials, devices, and systems followed by effects analysis and design hardening. Radiation transport and design hardening will consider thermo-mechanical effects, electro-magnetic coupling (EMP, IEMP, SGEMP), ionizing dose rate, total dose and displacement damage. The ideal candidate will also be familiar with radiation detection and dosimetry, as needed to support new radiation sensor systems and radiation test calibration/dosimetry. The candidate will be expected to work effectively in a team environment, mentor junior engineers, write proposals, communicate progress and results through published reports and presentations, as well as support radiation testing in the field.

Qualifications:

The ideal candidate will have a MS or PhD degree in nuclear engineering, electrical engineering, physics, materials science, or related field with a minimum of 10 years of experience. Desired skills include:

- Experience in radiation/nuclear physics with an understanding of the underlying mechanisms of radiation interactions with materials and devices.
- Fundamental understanding of radiation transport tools such as CEPXS, MCNP and/or GEANT.
- Ability to model multi-physics devices and systems using TCAD, SPICE, Comsol or similar tools.
- Knowledge of radiation environments and modeling tools.
- Knowledge of radiation device testing facilities and procedures.
- Experience in integrating rad hard systems in relevant platforms (e.g. spacecraft).
- Strong written and oral communication skills with proposal writing experience a plus.
- Ability to work with program managers and customers to define needs/requirements, write-proposals, and lead technical teams.
- Desire to mentor junior staff.

Applicants selected will be subject to a government security investigation and must meet eligibility requirements for access to classified information.