Mass Spectrometer Calibration Engineer

Applications are now being accepted for a mass spectrometer calibration engineer to support the development of flight and ground instrumentation at NASA’s Planetary Environment laboratory (PEL) at NASA/Goddard Space Flight Center (NASA/GSFC) in Greenbelt, MD. The position is funded through the University of Maryland, Baltimore County (UMBC) and the Center for Research and Exploration in Space Science and Technology II (CRESST II / https://cresst2.umd.edu/).

The ideal candidate will have strong programming skills and experience operating experimental setups. Duties will include developing software for instrument control and data acquisition / display on the ground and during flight. It also includes developing software for engineering and data telemetry processing.

The PEL have a considerable "code base" from development for previous missions including MSL/SAM (Mars), LADEE/NMS (Moon), MAVEN/NGIMS (Mars), ExoMars/MOMA (Mars), and SEAL/NMS (Moon) and several new missions on the horizon.

Recent graduates and well-established engineers who are looking for a long-term, permanent position are invited to apply.

Mandatory skills include:
- BS or MA in computer science or engineering
- Experience with C++ for GUI applications
- Experience with Qt development
- Experience with Python development
- Experience with communication / data acquisition software development.
- Experience with hardware interface programming, and telemetry processing.
- Comfortable on multiple computer platforms (Linux, Mac, Windows)

Additional desired skills include:
- Electronics knowledge (DVM, oscilloscopes, ESD, safety)
- Basic physics and chemistry knowledge - Ohm's Law, Ideal Gas law, electric and magnetic fields, etc.
- Basic laboratory / instrumentation experience. Experience on UH vacuum systems is a plus.
- Good troubleshooting skills
- Not afraid of grabbing a wrench or screwdriver

Instructions to Apply

The position will remain available until filled. Applications received by Sunday, June 20, 2021 will receive best consideration. Approximate start date around July 2021 is preferred; later start date may be negotiated. To apply, each applicant should send the following:
- Curriculum Vitae that shows direct relevance to all mandatory skills.
- A work sample in the form of either a report, poster, or journal article, along with the associated source code; and
• Two letters of reference arranged to be sent directly from your referees.

*Application materials should be submitted to:*
Mass Spectrometer Calibration Engineer
CRESST/UMBC
Mail Code 660.8, NASA/GSFC
Greenbelt, MD 20771, or
Via e-mail to katherine.s.mckee@nasa.gov

Salary and benefits are competitive, commensurate with experience and qualifications. For more information about the proposed research, contact Dr. Mehdi Benna (mehdi.benna-1@nasa.gov). For information on CRESST II or UMBC, contact Dr. Don Engel (donengel@umbc.edu). UMBC is an equal opportunity employer and welcomes all to apply. EOE/M/F/D/V.