Northwestern University is seeking a highly qualified individual in the area of advanced electron microscopy, with demonstrated expertise in the characterization and analysis of materials with high resolution TEM/STEM. This career opportunity is available for a senior scientist position within the Electron Probe Instrumentation Center (EPIC), an integral part of Northwestern University Atomic and Nanoscale Characterization Experimental (NUANCE) Center in association with McCormick School of Engineering’s Materials Science and Engineering Department.

The NUANCE Center is an open-access research, education, and collaborative center integrating five distinct, yet coordinated, imaging, characterization, fabrication and analysis facilities. See: www.nuance.northwestern.edu

The Research Associate will be involved in extensive microscopy and characterization of diverse materials and structures in a stimulating academic environment. The successful candidate will be expected to play a principal role in developing and adapting new and emerging techniques such as atomic resolution STEM, 3D/4D microscopy, in-situ studies, among others. In addition to leadership in experimental characterization using microscopy, the individual will collaborate with theorists and researchers in interdisciplinary fields. The position is conducive for personal and professional growth, with prospects for research faculty aspirations.

Research
- Use core strength in microscopy to advance materials research at Northwestern and the NUANCE Center
- Develop, lead and execute research collaborations with diverse groups and individuals
- Publish high-impact research, develop external research proposals and ideas, foster collaborations with academic and corporate partners.

Administrative
- Write official reports for funded scientific projects
- Resource management and facilitate best utilization of the research capabilities
- Organize workshops and events to increase visibility and/or interaction of the capabilities with facility users
- Overall coordination and leadership of research and educational mission

Teaching/Education
- Help to develop curriculum as to incorporate advances in the field
- Share knowledge through workshops/seminars/lectures
- Develop laboratory and demo modules to assist teaching, education and outreach

Basic Candidate Qualifications:
- Ph.D. in physical science or engineering or related field.
- Extensive hands-on experience in high resolution STEM/TEM, software/hardware of modern microscopy, and relevant computational expertise.

Preferred Qualifications:
- Demonstrated record of innovative experimental work in electron microscopy, including publication in top journals in microscopy and materials-related fields.
- Familiarity with 3D/4D, in-situ and analytical EM characterization techniques, as well as associated image/data processing and associated software/hardware expertise. Computer programming skills are considered a plus.
- Strong demonstration of teamwork abilities. Excellent communication skills to understand and document project requirements and to effectively convey recommendations to other disciplines.
- Ideal candidate is high-energy, creative, and a self-starter, who demonstrates technical excellence and is comfortable working in a team environment.

Interested candidates should submit to nuance@northwestern.edu as a single PDF: 1) Introduction letter, 2) Curriculum Vitae, 3) Research Statement (3-5 pages), 4) Contact info for 3 references.

As per Northwestern University policy, this position requires a criminal background check. Successful applicants will need to submit to a criminal background check prior to employment. Northwestern University is an Equal Opportunity, Affirmative Action Employer of all protected classes, including veterans and individuals with disabilities. Women, racial and ethnic minorities, individuals with disabilities, and veterans are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.