RESEARCH ENGINEER IN ADVANCED ANALYTICAL ELECTRON MICROSCOPY

Department of Materials Science and Engineering
Lehigh University, Bethlehem, PA

The Nanocharacterization Laboratory at Lehigh University houses an impressive array of electron-optical instruments including two state-of-the-art aberration-corrected analytical electron microscopes. It is also the home of the world–renowned Lehigh Microscopy School. The Research Engineer position entails managing all aspects of TEM/STEM operations within this user facility. Major responsibilities of the successful candidate include: training users in the operation of the laboratory’s TEM/STEM microscopes and related specimen preparation equipment, including a dual-beam FIB; performing routine maintenance and overseeing essential repairs of the instrumentation; managing routine operation, including logs, book-keeping, billing, maintenance records, and safety; making recommendations and assisting in the purchase, installation and commissioning of new equipment; liaison with external users from other universities, government laboratories, and local industry; providing outreach and tours for the general public; and participating in the annual Lehigh Microscopy School (http://www.lehigh.edu/microscopy). Further details of the Nanocharacterization Laboratory and position requirements can be found at http://www.lehigh.edu/~inmicro/.

Applicants should submit a complete CV and the names of three referees to Sharon Coe, Department of Materials Science and Engineering, Lehigh University, 5 East Packer Avenue, Bethlehem, PA 18015-3195, USA. We will start reviewing applications after March 15, 2010, and the search will continue until the position is filled. Lehigh University is committed to recruiting and retaining women and members of minority groups.
Job Description (for website)

Job Title: Research Engineer in Advanced Analytical Electron Microscopy
Location: Bethlehem, PA
Full/Part Time: Full-Time
Regular/Temporary: Regular
Application deadline: We will start reviewing applications after March 15th 2010 and the search will continue until the position is filled.

Department: Department of Materials Science and Engineering, Rossin College of Engineering and Applied Science, Lehigh University.
Salary Range: Negotiable depending on qualifications and experience.
Qualifications: Advanced University degree (Master's or higher) in a physical science or an engineering discipline and four years of demonstrated experience in electron microscopy.

Requirements: This position is very specialized and requires the applicant to have:
* Proven knowledge and hands-on experience with transmission electron microscopes (-familiarity with aberration corrected scanning transmission electron microscopy would be a distinct advantage)
* The ability to operate advanced laboratory equipment
* The ability to maintain advanced laboratory equipment (-prior experience with vacuum technology and electronics would be advantageous)
* The ability to train and convey technical information to technical and non-technical users
* Good management skills relevant to a multi-user environment
* The ability to perform log and book-keeping functions
* Good communication and interpersonal skills
* The ability to establish and maintain effective working relationships.

Contact for further information:
Dr. Christopher J. Kiely (cjk5@lehigh.edu)
Dr. Masashi Watanabe (maw3@lehigh.edu)

For further information on the Nanocharacterization Laboratory at Lehigh University please visit http://www.lehigh.edu/~inmicro/

Responsibilities:
Some of the major responsibilities of this position are as listed below:-

* Interacting, assisting and training users for routine and advanced operation of the TEM/STEM instruments and occasionally SEM’s
* Advising users on the use of related TEM sample preparation equipment, including dual beam FIB technology
* Assisting users with image simulation and data analysis
* Performing routine maintenance and essential repair of the microscopes and related
sample preparation equipment. (Some, but not all, of our microscopes are under service contract)
* Liaison with instrument service engineers and external users from other universities, government laboratories and local industry
* Making recommendations and assisting in the purchase, installation and commissioning of new equipment.
* Managing routine day-to-day operation of the Nanocharacterization Laboratory (- including logs, book-keeping, billing, maintenance records, inventory, and consumables purchases)
* Overseeing safety aspects of the Nanocharacterization Laboratory
* Liaison with personnel from the Facilities Department with regard to environmental issues in the microscopy suite
* Participating in the annual Lehigh Microscopy Schools
* Providing outreach and tours for the general public.

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