



CENTER LEADER FOR LUJAN NEUTRON SCATTERING CENTER

Los Alamos National Laboratory (LANL) is seeking a Center Leader for the Lujan Neutron Scattering Center. The Lujan Center is a national user facility for neutron scattering supported by the Office of Basic Energy Sciences (BES) of the Department of Energy's Office of Science. The Lujan Center is also directly used for research supporting the National Nuclear Security Administration's (NNSA) national security mission. The selected candidate will lead and manage an organization of about 50 researchers and staff to execute a portfolio of close to \$15M per year, principally from BES but also from NNSA, Laboratory Directed Research and Development, and other sponsors. The Center Leader is a member of the Los Alamos Neutron Science Center (LANSCE) Management Team and is expected to work with the LANSCE Facility Director and other research leaders at LANSCE in setting scientific and budgetary priorities. The Center Leader will be a visible and effective champion for neutron scattering science in the U.S., partnering with other national and international facilities to advance and grow the U.S. neutron scattering science community. In addition to being a national user facility hosting hundreds of users each year, the Lujan Center is the home of the Laboratory's neutron scattering science capability and the Center Leader is the steward of this capability. In that capacity, the Center Leader is expected to promote collaborations with other LANL User Facilities, such as the Center for Integrated Nanotechnology (CINT) and the National High Magnetic Field Laboratory (NHMFL). Beyond technical leadership and management, the Center Leader will be expected to manage, lead and develop people, recruit and retain critical skills in the workforce, and support diversity and affirmative action. In addition, the Center Leader will be responsible for safe and secure facility operations, and the fiscal management of all Lujan Center functions.

To apply, go to <http://bit.ly/uDDxey> or go to www.lanl.gov/jobs Reference job IRC1887.

Contact John Sarrao at sarrao@lanl.gov for additional information.

EOE

www.lanl.gov/jobs

UNIVERSITY of CALIFORNIA • IRVINE

SENIOR DEVELOPMENT ENGINEER Materials Characterization Facility

Work with the Director to manage the day-to-day operations of UC Irvine's Materials Characterization Facility, the central campus user facility for electron microscopy, X-ray scattering, scanning probe, and soft materials characterization instrumentation. Located in the new Calit2 Building and the Engineering Tower, the Facility assists over one hundred student users, over 40 faculty, and many outside academic users and corporations in carrying out cutting-edge research in chemistry, materials science, physics, engineering, biology, and medicine.

The successful applicant must be an XRD expert and will have direct responsibility for at least three XRDs, one scanning electron microscope, and auxiliary equipment. Duties include: serve as lead campus expert on X-ray and scanning electron microscopy analytical techniques; train, supervise, and work directly with users to carry out research; maintain all Facility equipment at peak levels of performance; co-manage all aspects of day-to-day Facility operations; assist in improving and upgrading existing instruments and acquiring new instruments; participate in teaching and outreach activities; promote the Facility on and off campus; perform original research, publish scientific research in peer-reviewed journals, and attend scientific conferences.

For more information and to apply (by January 1, 2012; job# 2011-0720), visit https://staffing2.hr.uci.edu/CSS_External/CSSPage_Welcome.asp.

*UCI is an Equal Opportunity/Affirmative Action employer
committed to excellence through diversity.*

THE UNIVERSITY OF ALABAMA

ASSOCIATE/ASSISTANT PROFESSOR Department of Chemical & Biological Engineering

The Department of Chemical & Biological Engineering at The University of Alabama seeks applications and nominations for a new Associate/Assistant Professor, with a strong emphasis in biological engineering. UA's ChBE program is growing in quantity and quality of undergraduate and graduate students and is part of a major facility expansion, including several new buildings (over 900,000 sq. ft.) available for interdisciplinary research and teaching.

We are seeking candidates who will develop a nationally competitive research program that will complement the current biological research foci of the department and build bridges with interdisciplinary colleagues in UA's biological sciences, chemistry, and engineering departments. The successful candidate must have a balanced perspective on research and instruction. Teaching at both graduate and undergraduate levels is essential. Applicants must hold a doctoral degree in chemical engineering or a closely related field. UA's Chemical and Biological Engineering Department offers BS, MS, and PhD degrees, and currently has an enrollment of over 425 undergraduate students, 27 graduate students, and 13 professors. Sponsored research projects currently exceed \$3.5 million. The department plays a leading role in the College of Engineering's research and educational missions. For more information on the department, see our website: che.eng.ua.edu.

Interested persons should submit a curriculum vita, a cover letter, description of research plans, a statement of teaching philosophy, and contact information for three references. These documents should be uploaded by accessing: facultyjobs.ua.edu and uploading to the Biological Engineering position listed under organization #214221, requisition #0806118. Review of applications will begin immediately and will continue until the position is filled.

The University of Alabama is an equal opportunity/affirmative action, Title IX, Section 504, ADA employer.

UT D

FACULTY POSITIONS

Department of Materials Science and Engineering The University of Texas at Dallas

The Department of Materials Science and Engineering in the Erik Jonsson School of Engineering and Computer Science at the University of Texas at Dallas is seeking outstanding candidates at both the junior and senior levels with interests and expertise principally in the following area: **Device Fabrication and Characterization**, including 111-Y and graphene device processing, electrical characterization of devices, and modeling of device behavior.

Located in the new Natural Science and Engineering Research Laboratory at UT Dallas (<http://www.utdallas.edu/nserl>), with new state-of-the-art facilities for synthesis, nanofabrication, and interface characterization, the MSE department is composed of highly interactive, diverse faculty members carrying out nanoelectronics research programs in collaboration with Physics, Chemistry, Electrical Engineering, and many external collaborators.

The University of Texas at Dallas is situated in Richardson, Texas, one of the most attractive suburbs of the Dallas metropolitan area with several hundred high-tech companies within a few miles of the campus, including Texas Instruments, Lockheed Martin, Raytheon, Lennox, Rockwell-Collins, Nortel Networks, Alcatel, Ericsson, Hewlett-Packard, Samsung,

Fujitsu, Cisco Systems, EDS, Zyvex, and Intervoice. Opportunities for joint university-industry research projects are excellent.

Qualified candidates must have a strong commitment to undergraduate and graduate education, and the potential to develop an externally funded research program. Candidates for positions at the Associate Professor or Full Professor level must have a strong record of scholarly and professional achievements. Candidates belonging to underrepresented groups are particularly encouraged to apply.

Applications should be uploaded electronically to <http://provost.utdallas.edu/facultyjobs/welcome/jobdetail/pch111031> and should include 1) a CV, 2) a detailed research vision and goals statement, 3) a one-page teaching philosophy statement, 4) at least three references with contact information, and 5) a cover letter describing the interest in this position.

For more information, send e-mail to Dr. Robert M. Wallace, Search Chair at rmwallace@utdallas.edu. The search committee will begin evaluating applications as soon as possible and will continue until the position is filled.

The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University's faculty and administration.



FRONTIER INSTITUTE
OF SCIENCE AND TECHNOLOGY
前沿科学技术研究院
FIST

CENTER DIRECTORSHIPS/FACULTY POSITIONS/ POSTDOCTORAL RESEARCH FELLOWS

Frontier Institute of Science and Technology (FIST)
Xi'an Jiaotong University (XJTU)

FIST is a large selective investment by XJTU in an effort to establish a world-class, multi-disciplinary research institute. To achieve this goal, FIST is setting up 10 research centers of excellence in Physics, Chemistry, Bio-Science/Life-Science/ Basic-medical-Science, and Materials Science, and adopts a new management system similar to that of most U.S. universities. Seven out of the ten planned centers have been established recently, and FIST is now recruiting the remaining three Center Directors (either full-time or honorary). In addition, FIST invites applications to fill its multiple, full-time tenure-track faculty positions at all levels (from lab director to group leader), as well as postdoctoral positions. See our Chinese ad for details at <http://fist.xjtu.edu.cn/show.php?id=33>.

An eligible candidate for the Center Director position should be an internationally renowned scientist and established leader in his/her field, with the ability and will to build his/her center into an internationally recognized center of excellence. Successful candidates will be provided with a sizable start-up package to establish a research center, together with a salary (500k-800k RMB annually for full-time directors) or an honorarium commensurate with the working days (for honorary directors). See our Chinese ad for details at <http://fist.xjtu.edu.cn/show.php?id=33>.

In addition to the Center Director positions, FIST also invites applications in the above-mentioned areas to fill its full-time, tenure-track faculty positions at all levels, from lab director to group leader. Applications for postdoctoral positions are also welcome. An eligible faculty candidate should have a track-record for excellence in research and the potential to lead a lab or a group to success. Successful candidates will be provided with a competitive start-up package including an annual salary of 100k-500k RMB, 15-200m² lab space, and 100k-2 million RMB start-up funds, together with many other benefits. Position level and start-up package will vary with the candidate's qualification. See our Chinese ad for details at <http://fist.xjtu.edu.cn/show.php?id=33>.

Interested individuals should set up their free ResearcherID webpage on <http://www.researcherid.com>. Please send your ResearcherID citation information along with a cover letter, CV, and a list of ten representative publications to Dr. Xiangli Meng, Frontier Institute of Science and Technology (FIST), Xi'an Jiaotong University, No.1 West Building, 99 Yanxiang Road, Yanta District, Xi'an, Shaanxi Province, P.R. China, 710054. Tel/Fax: +86 29 83395131, email: fist@mail.xjtu.edu.cn. Valid through **December 31, 2011**.

XJTU is an AA / EOE employer.



FACULTY POSITION Department of Mechanical and Aerospace Engineering

The Department of Mechanical and Aerospace Engineering (MAE, <http://maeweb.ucsd.edu/>) at the University of California, San Diego invites applications from candidates performing innovative research in energy related areas, for example, energy harvesting, conversion, storage, and others. We are particularly interested in mid-career candidates with a background in mechanics and materials, but other excellent individuals will also be considered. This search is part of the multi-year recruitment in MAE and the Jacobs School of Engineering in the area of energy. The successful candidate will build an impactful research program that adds to the multifaceted research at MAE and show strong commitment to teaching at the undergraduate and graduate levels.

The MAE Department within the Jacobs School of Engineering at UC San Diego is committed to building an excellent and diverse faculty, staff, and student body. In addition to having demonstrated the highest standards of scholarship and professional activity, the preferred candidates will have experience or demonstrated contributions to a climate that supports equity, inclusion, and diversity.

For applicants interested in spousal/partner employment, please visit the UCSD Partner Opportunities Program website at <http://academicaffairs.ucsd.edu/offices/partneropp/>.

Salary: Level of appointment commensurate with qualifications; salary based on published UC pay scales.

Closing Date: Deadline for submission is **January 16, 2012** or until the position is filled.

To Apply: The application (CV, a statement of research and teaching interests, a personal diversity statement summarizing their past or potential contributions to diversity, and names of three references) should be submitted electronically to the MAE department at <https://apol-recruit.ucsd.edu/apply#JSOE>. Please select the following job opening: Jacobs School of Engineering | MAE | Assistant, Associate, or Full Professor (10-339) in Energy (Mechanics & Materials).

UCSD is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to excellence through diversity. <http://diversity.ucsd.edu/>



Neutron Sciences Postdoctoral Research Fellow

Project Description:

The Neutron Sciences Directorate at Oak Ridge National Laboratory (ORNL) invites applications for a postdoctoral research fellow within the Materials Science and Engineering Thrust area. With the United States' highest flux reactor-based neutron source for condensed matter research (the High Flux Isotope Reactor) and the world's most intense pulsed, accelerator-based neutron source (the Spallation Neutron Source), ORNL is becoming the world's foremost center for neutron science. Research at these facilities encompasses the physical, chemical, materials, biological, and medical sciences and will provide opportunities for up to 2000 researchers each year from industry, research facilities, and universities all over the world. To learn more about Neutron Sciences at ORNL go to: <http://neutrons.ornl.gov>.

Responsibilities:

The general areas of interest include (1) Structure, thermal stability, and deformation of thermo mechanical extremes and (2) Kinetics of phase transformation at multiple length scales.

The candidate will be part of a research team involving scientists in other divisions at Oak Ridge National Laboratory, most notably Materials Science and Technology Division and Computer Science and Mathematics Division. Most of the research will be carried out using state-of-the-art neutron scattering instruments at the Spallation Neutron Source and High Flux Isotope Reactor, although there will be complementary experiments involving synchrotron scattering and atom probe tomography.

Technical questions may be addressed to Dr. Xun-Li Wang, wangxl@ornl.gov.

Qualifications:

A Ph.D. in materials science, physics, mechanical engineering, or related fields, or equivalent combination of training and experience, is required. Preference will be given to candidates with experience in diffraction or small angle scattering, either with neutron or synchrotron. Strong written and oral communications skills are desirable. The candidate must be willing to work in a team environment on technically and scientifically challenging problems.

Applications will be accepted until the position is filled.

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

How to Apply:

Qualified applicants must apply online at <https://www3.ornl.gov/ORNLTOPP/Account/LogOn>. All applicants will need to register before they can begin the online application.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.

FACULTY POSITION George R. Brown School of Engineering

The George R. Brown School of Engineering at Rice University invites applications for a tenure-track position as an assistant professor in the general area of materials, devices, and systems with applications to energy harvesting, conversion, conservation, and storage.

Applicants are expected to have a PhD degree or equivalent, a strong background in materials science and engineering or a related field, excellent teaching skills, demonstrated excellence in research, and success in collaborative and interdisciplinary research. The successful candidate will be expected to initiate and lead an independent research program of international caliber, as well as to be a passionate teacher at the undergraduate and post-graduate levels. Collegial interaction will be an important element in success. The search committee will consider candidates with an interest in an appointment in any one of the participating departments in the School of Engineering (Electrical and Computer Engineering, Mechanical Engineering and Material Science, Civil and Environmental Engineering, Chemical and Biomolecular Engineering). Alternatively, a joint appointment between any two of these departments is also possible.

The School of Engineering has a vibrant and growing interdisciplinary research program in a wide range of engineering disciplines including nanotechnology, photonics, and environmental systems with great national and international visibility. The school strongly encourages collaborative relationships both internally and externally, and benefits from interactions with academic, industrial, and government institutions within Houston, across the US, and around the world.

Applicants should submit a cover letter, curriculum vitae, a detailed statement of research and teaching interests, and at least three references through the faculty application website: <http://facultyapps.engr.rice.edu>.

The deadline for applications is **January 15, 2012**; review of applications will commence December 15, 2011. The position is expected to be available July 1, 2012.



RICE

Rice University is an equal opportunity, affirmative action employer. Applications from women and under-represented minorities are strongly encouraged.

**NREL****POSTDOCTORAL FELLOW**
Analytical Microscopy Group

The Analytical Microscopy Group at the National Renewable Energy Laboratory (NREL) is a leading research group in the fields of electron microscopy (TEM, SEM), scanning probe microscopy (AFM, STM, NSOM), and their applications to the characterization of semiconducting materials and devices. We are currently seeking a Postdoctoral Fellow to join our team. The main responsibility will be to carry out TEM/STEM characterization of polycrystalline thin film structures for photovoltaic applications. Particular emphasis will be on the examination of structural defects, phase formation, and interfaces in polycrystalline compound semiconductors. The goal of the research is to correlate the structural and compositional properties with the micro-electrical properties and the solar cell parameters.

A PhD degree in materials science or a related subject and a strong TEM/STEM background are required. Experience with Z-contrast, EELS, and EDS analysis is highly desirable. The position will be offered for one year, but can be renewed for up to three years.

Interested candidates are asked to submit a resume, three recent publications, and the names of three references to:

Dr. Mowafak Al-Jassim
National Renewable Energy Laboratory
MS/3215, 1617 Cole Blvd.
Golden, CO 80401-3393, USA
mowafak.aljassim@nrel.gov
www.nrel.gov/pv/measurements

**AGILTRON****POSITIONS AVAILABLE**

Agiltron, Inc., located in Woburn, Massachusetts, is seeking for immediate hire the following:

Infrared Imaging Scientist

- PhD degree in electrical engineering, physics, or equivalent
- Strong background in design and modeling of semiconductor-based photodiodes
- Experience with photodiode array layout, fabrication, and testing

NSF-Sponsored Postdoctoral Research Fellow in Nanomaterials

- PhD degree in an NSF-supported STEM-related discipline, earned in the last three years
- U.S. citizen, U.S. national, or U.S. legal permanent resident
- No prior postdoctoral fellowship in a corporate laboratory longer than six months

Forward a detailed resume along with three references to humanresource@agiltron.com.


UNT UNIVERSITY OF
NORTH TEXAS
Discover the power of ideas
SENIOR FACULTY POSITIONS
Multi-Scale Surface Engineering and Science

The University of North Texas (UNT) has embarked on a major multi-year university initiative to hire new faculty and make major infrastructure improvements to enhance and expand its research enterprise. UNT is seeking to fill multiple faculty positions, most at the senior level, to join with existing faculty to build fifteen cross-disciplinary research clusters in strategically selected areas, <http://research.unt.edu/clusters/>. The new faculty members will have significant opportunity to shape the expansion and growth of the clusters with additional hires in subsequent years.

The University of North Texas seeks applicants to fill two Associate/Full Professor positions as part of the multi-disciplinary Multi-Scale Surface Science and Engineering Research Cluster. Candidates will develop synergies to further strengthen the existing core emphases in: 1) Multiscale engineered surfaces by physical routes including ion beam fabrication/modification; 2) Multiscale engineered surfaces by chemical routes including preparative mass spectrometry and atomic layer deposition; and 3) Multiscale engineered surfaces by hybrid routes including laser surface processing/texturing and physical/chemical vapor deposition. Candidates with a background in experimental materials science, chemistry or physics are sought with an emphasis on materials surface processing across multiple length scales; microstructure-property relationships; and materials design and development relevant to the above core emphases.

The positions require an earned doctorate in Materials Science and Engineering, Chemistry, Physics, or related fields. Consideration will only be given to those applicants who have a potential for and/or proven track record in academia, including teaching experience and externally funded research grants. A record of interdisciplinary activities is preferred. The home department of the faculty hired will depend on their particular research and teaching expertise and interests, although cross-departmental appointments are encouraged.

The University of North Texas (UNT) is the fourth largest university in the state, strategically located in Denton, Texas which is 35 miles north of both Dallas and Fort Worth. There are over 36,000 students registered in 97 bachelors, 88 masters, and 40 doctoral degree programs. The DFW area has more than six million people, with significant economic growth, numerous industrial establishments, and excellent school districts. UNT has recently embarked on a 5-year research strategic plan to provide superior graduate education, scholarship, and artistic endeavors on par with the nation's elite research universities.

All applicants must submit an online application to <http://facultyjobs.unt.edu>. Postings are System ID# 6000575 and 6000540. Screening of applications will begin on November 9, 2011, and will continue until the search is closed. For additional information and questions, please contact the chair of the search committee Narendra Dahotre at 940-565-2031 or Narendra.Dahotre@unt.edu.

The University of North Texas is an AA/ADA/EOE committed to diversity in its educational programs.



FACULTY POSITIONS Mechanical Engineering

The Department of Mechanical Engineering at the Massachusetts Institute of Technology seeks outstanding candidates for tenure-track faculty positions in the following fields to begin July 1, 2012 or thereafter:

- Bioengineering
- Ocean Science and Engineering
- Manufacturing
- General across all Mechanical Engineering disciplines.

A detailed description for each position is provided at <http://search-meche.mit.edu>. Applicants should hold an earned PhD degree in mechanical engineering or a relevant field by the beginning of the appointment. Faculty duties include teaching at the graduate and undergraduate levels, research, and supervision of student research.

We seek candidates who will provide inspiration and leadership in research and actively contribute to core mechanical engineering undergraduate and graduate level teaching. New faculty hires are expected to have a research focus in one of the disciplinary fields listed above. Applicants must have demonstrated: 1) outstanding research strength; 2) a strong disciplinary background; 3) strong experimental and/or theoretical skills; and 4) the potential to work across disciplinary boundaries. Appointment would be at the assistant or untenured associate professor level. In exceptional cases, a senior faculty appointment may be possible.

Applicants should send a curriculum vita, a research statement, a teaching statement, and copies of not more than three publications. They should also arrange for four individuals to submit letters of recommendation on their behalf. This information must be entered electronically at the following site: <http://search-meche.mit.edu>. Full consideration will be given to applications submitted by **December 31, 2011**.

MIT is an equal-opportunity/affirmative action employer. Women and underrepresented minorities are especially encouraged to apply.



Assistant Professor

The Department of Polymer Science invites applications for a tenure-track faculty appointment in Polymer Chemistry at the Assistant Professor level to begin in Fall 2012. Applicants should have a PhD degree in chemistry, materials science, chemical engineering, or a related discipline. Applicants must have excellent communication skills and the ability to establish and maintain a robust, externally-funded, nationally-recognized research program. For complete details and to apply for this position, visit <http://www.uakron.edu/jobs/>. Requisition number 007014. Completed applications must be received by **December 19, 2011** to ensure inclusion in the initial review. Applications received later may also be considered until the search is concluded.

EEO/AA

ENDOWED CHAIR Materials Engineering

Tulane University invites applications for the Jung Chair in Materials Engineering, a chaired faculty position in the Department of Physics and Engineering Physics. The successful candidate will lead and expand the department's research efforts in new materials and related devices, which may include novel electronic, magnetic, polymer, oxide-based, and/or biological materials; develop an internationally recognized, externally funded research program; and collaborate with current research groups and other departments in the School of Science and Engineering, the School of Medicine, and the School of Public Health and Tropical Medicine. Current programs in condensed matter physics at Tulane include surface science, optical and terahertz spectroscopy, low temperature superconductivity, complex oxide-thin-films, polymers, density functional theory, and quantum information theory.

Applicants must possess a doctorate in engineering, demonstrated excellence in research and teaching at the senior faculty level, and an outstanding record of research funding and scholarly publications. The position will include a competitive salary and startup package, and an attractive discretionary research fund.

Application review will begin on November 1, 2011 and continue until the position is filled. Applicants should submit a cover letter, CV, research plan, and contact information for five references to: Jung Chair Search, Dept. of Physics, Tulane University, New Orleans, LA 70118. Further information can be found at <http://tulane.edu/sse/pep/>. Women and underrepresented minorities are strongly encouraged to apply. Tulane is committed to providing a family friendly workplace. Inquiries can be directed to Prof. Fred Wietfeldt at few@tulane.edu.

Tulane is an Equal Opportunity/Affirmative Action employer.





HEAD AND PROFESSOR School of Materials Engineering

Purdue University is seeking nominations and applications for the position of Head of the School of Materials Engineering. A dynamic leader is sought to advance the School's nationally-ranked program and to enhance its national and international impact through a continuing commitment to excellence in discovery, learning, and engagement. The Head—who reports to the Dean of the College of Engineering—provides the leadership to the faculty, students, staff, alumni, and other stakeholders of the School and will have the opportunity to inspire and shape a shared vision and implement a strategic plan for the School to move it forward. The Head must have a PhD degree in Materials Science and Engineering or related disciplines, qualify for an appointment at the full professor level with tenure, have a distinguished academic, government, or industrial record, and demonstrate strong leadership and collaborative skills. Candidates should have a clear understanding of the current needs and future direction of the materials science and engineering profession, possess a commitment to diversity and collaboration, and be skilled in administration, student relations, mentoring, and alumni development.

The faculty members in the School of Materials Engineering are located in the Neil Armstrong Hall of Engineering and the Birck Nanotechnology Center, which provide outstanding facilities for teaching and research. The School currently has 116 undergraduate students, 89 graduate students and postdocs, and 20 faculty members. The School's faculty members have

strong connections to research centers in Purdue's Discovery Park, as well as with the Colleges of Agriculture, Liberal Arts, Pharmacy, Management, and Science.

The College of Engineering at Purdue consists of over 7,300 undergraduate students, nearly 2,900 graduate students, and 359 faculty members. Purdue is one of the nation's leading land-grant universities with a full range of academic majors and an enrollment of over 40,000 students on the West Lafayette campus.

An application should include: (1) a three-page personal statement addressing the applicant's vision, administrative philosophy, experience, and qualifications; (2) a curriculum vitae; and (3) names and contact information for at least three references. Applications and inquiries will be kept confidential. Applicants will be notified before references are contacted. Electronic submission is preferred and should be uploaded at <https://engineering.purdue.edu/Engr/InfoFor/Employment>. Screening will commence **February 1, 2012**, and continue until this position is filled. Nominations and questions regarding the position can be addressed to Chair, Materials Engineering Head Search Committee, Purdue University, Neil Armstrong Hall of Engineering, 701 W. Stadium Avenue, West Lafayette, IN 47907-2045; Phone: 765-494-5012; Email: mse-search@ecn.purdue.edu. A background check will be required for employment in this position.

Purdue University is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce.




Tenure-Track Faculty Position Department of Mechanical and Industrial Engineering

The Department of Mechanical and Industrial Engineering at Northeastern University invites applications and nominations for a tenure-track faculty position beginning in September 2012 at the Assistant or Associate Professor level. Applicants at the senior level with well-established, well-funded, and internationally recognized research programs will also be considered. Candidates are sought to expand the Department's research efforts in the emerging area of nanomanufacturing including but not limited to directed assembly of various nanoelements, large scale nanomaterial (nanoparticles, nanowires/nanotubes, nanosheets) based manufacturing and characterization of 2-D and 3-D nanostructure. A doctorate in mechanical engineering or in a closely related field is required. Excellence in teaching is expected.

The Mechanical and Industrial Engineering Department at Northeastern is a large and growing academic enterprise. At the core of the Northeastern engineering education experience is our top ranked cooperative education program, which contributes significantly to the integrated learning model in use in the College of Engineering. In addition, the Mechanical and Industrial Engineering Department is home to three federally funded research centers [of the eight federal centers in the College of Engineering]: 1) The NSF Nanoscale Science and Engineering Center for High-rate Nanomanufacturing, 2) The NSF Center for Health Organization Transformation and 3) The VA New England Healthcare Engineering Partnership.

To apply: please visit the College of Engineering website, <http://www.coe.neu.edu> and click on Faculty Positions. Applications should include a cover letter, a statement of current and future research interests, curriculum vitae, and contact information for at least three references. Applications will be reviewed until the position is filled. For more information contact Professor Jackie Isaacs (jaisaacs@coe.neu.edu)

Northeastern University has recently enjoyed an unprecedented rise in the National University rankings in *US News and World Report*. Northeastern is also the recipient of an NSF-funded ADVANCE grant for promoting the careers of women in engineering and science.

Equal Employment Opportunity:

Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women and persons with disabilities. Northeastern University is an E-Verify Employer.



Northeastern University

<http://www.neu.edu>



Assistant or Associate Professor The Department of Chemical and Biological Engineering

The Department of Chemical and Biological Engineering at the University at Buffalo seeks to hire two new tenure-track faculty at the Assistant or Associate Professor rank. Candidates with research interests in experimental and/or computational studies of the structure, properties, production and application of engineered materials are of particular interest. Ideal candidates will complement existing research strengths in the department (www.cbe.buffalo.edu) and the University's broader UB2020 Strategic Initiatives (UB2020.buffalo.edu). Candidates in other research areas will be considered in exceptional cases. Applicants should submit a curriculum vita, statements of teaching and research plans, and names of at least three references via the UBJobs system, at www.ubjobs.buffalo.edu.

The University at Buffalo is an Equal Opportunity/Affirmative Action Employer/Recruiter



IIT Armour College of Engineering
ILLINOIS INSTITUTE OF TECHNOLOGY

FACULTY POSITIONS

Department of Mechanical, Materials, and Aerospace Engineering (MMAE)

Applications are invited for multiple tenure-track faculty positions at the assistant or associate professor level. Exceptional candidates at the professor level may also be considered. Candidates should have interdisciplinary research interests contributing to the department's areas of strategic research emphasis: (1) sustainable energy systems, (2) health applications of bio-fluid dynamics, (3) smart transportation and mobility systems, (4) energy-efficient manufacturing through thermal and thermally-assisted processes, or other research areas that enable strong interdisciplinary collaborations.

Candidates must have an earned doctoral degree in engineering or physical science, and be capable of developing an externally funded research program that supports graduate students and provides a record of published research. Candidates are expected to be highly effective teachers for undergraduate and graduate courses.

The MMAE department at IIT offers ABET accredited bachelor's, master's, and doctoral degrees in mechanical engineering, aerospace engineering, and materials science and engineering. IIT is a private PhD-granting research university, with world-renowned programs in engineering, architecture, the sciences, humanities, psychology, business, law, and design. The University's Main Campus is located three miles from downtown Chicago.

For full application requirements and more information, visit www.iit.edu/engineering/mmae. Application review begins December 1, 2011.

IIT is an Equal Opportunity and Affirmative Action Employer.



SHAW UNIVERSITY

POSTDOCTORAL RESEARCHERS

Photovoltaic Device Modeling | Photovoltaic Nanostructures | Porous Photovoltaic Materials | Photovoltaic Nanocontacts | Photovoltaic Nano-Devices and Systems

Applications are invited for five postdoctoral research positions in Photovoltaic Nanotechnology Research at Shaw University in Raleigh, NC. The research is on the physics of photoelectric effect, materials science of a wide range of photovoltaic nano-materials, multiscale investigation of optoelectronic processes, functionalities of third generation photovoltaic devices, nano-scale heterostructures, and layered quantum dots and quantum wells in Si, Ge, and related materials. It involves conceptual studies of the physics of optoelectronic processes in new photovoltaic devices, fabrication and characterization of photovoltaic nano-materials and nano-devices, multiscale modeling and computer simulation of optoelectronic processes in nanostructures, and electronic transport.

Applicants should have a PhD degree and three to five years' postdoctoral research experience. Qualified and interested candidates should apply according to the instructions provided at http://www.shawu.edu/Faculty_Staff/Employment_Opportunities.aspx?id=724.

Equal Opportunity/Affirmative Action Employer



**NANYANG
TECHNOLOGICAL
UNIVERSITY**



NUS
National University
of Singapore

TEMASEK RESEARCH FELLOWSHIP (TRF)

The Nanyang Technological University (NTU) and the National University of Singapore (NUS) invite outstanding young researchers with a PhD Degree in science or technology to apply for the prestigious TRF awards.

The TRF scheme provides selected young researchers an opportunity to conduct and lead research that is relevant to defence. It offers:

- 3-year research grant commensurate with the scope of work, with an option to extend up to a further 3 years.
- Possible tenure-track academic appointment with the university at the end of the TRF.
- Attractive and competitive remuneration.

Fellows may lead and conduct research, and publish in these areas:

- Advanced Protective Materials
- Bio-mimetic Aerodynamics
- Cyber Security
- Sensemaking Technology
- Sensor Systems and Signal Processing

Other fundamental areas of science or technology, where a breakthrough would be of interest to defence and security, will also be considered.

Singapore is a globally connected cosmopolitan city-state with a supportive environment and vibrant research culture. For more information and application procedure, please visit:

**NTU – http://www3.ntu.edu.sg/trf/index_trf.html
NUS – <http://www.nus.edu.sg/dpr/funding/trf.htm>**

Closing Date: Friday, 10 February 2012

Shortlisted candidates will be invited to Singapore to present their research plans, meet local researchers, and identify potential collaborators in May 2012.

IOWA STATE UNIVERSITY

FACULTY POSITION

Department of Materials Science and Engineering

The Department of Materials Science and Engineering (www.mse.iastate.edu) at Iowa State University (ISU) has an immediate opening for a tenure or tenure-track faculty position at the Full Professor level with demonstrated leadership experience and expertise in the Physical and Chemical Metallurgy of Rare Earths. This position will be a joint appointment as a faculty member with the Department of Materials Science and Engineering and as a senior investigator at the appropriate level with the Ames Laboratory (www.ameslab.gov), a U.S. DOE National Laboratory. Exceptional candidates with demonstrated expertise but insufficient experience to qualify for the appointment at the Full Professor level may be considered for tenure-track Associate or Assistant Professor level appointments.

Responsibilities will include research performed at the senior investigator level at the Ames Laboratory, graduate student and postdoctoral research associate supervision, as well as undergraduate and graduate teaching and service activities. The candidate also will have opportunities to engage in interdisciplinary collaborations with various centers located on the Iowa State Campus, including the Center for Nondestructive Evaluation (www.cnde.iastate.edu) and the Micro-Electronics Research Center.

The Department of Materials Science and Engineering has 22 tenure and tenure-track faculty members, of whom two are National Academy of Engineering members, nearly 200 undergraduate students, and 90 graduate students. Sponsored research expenditures of the department are over \$12M per year. The Ames Laboratory is a government-owned, contractor-operated research facility of the U.S. Department of Energy that is run by Iowa State University. The Ames Laboratory creates innovative materials, technologies, and energy solutions; its annual budget is approximately \$36M. The Ames Laboratory employs more than 400 full- and part-time employees (20 percent are students), including more than 250 scientists and engineers, and more than 350 non-paid associates throughout Iowa State University.

The successful candidate must have a PhD degree in materials science and engineering, or a related field, with significant research in the technical area described above. Applicants will have demonstrated research accomplishments and the potential for expanding excellence in both research and teaching commensurate with the current level of the position and expectations for the future. Experience in university-level teaching at the undergraduate and graduate levels, experience in supervising research of postdoctoral research associates, graduate and undergraduate students, and experience in writing, submitting, and administration of research proposals is preferred.

All applications must be submitted electronically for **vacancy # 110962** through the www.iastatejobs.com website. Complete applications will include:

1. A cover letter
2. A curriculum vitae
3. A concise combined statement of research and teaching interests as well as a vision for future research not to exceed three pages total, and
4. Contact information for at least three references, including name, address, electronic mail, and phone number
5. A minimum of one, but not more than three, representative refereed conference or journal publication(s) submitted in "other document(s)" sections of the website as a pdf file. If your conference or journal publication is larger than 5 MB, please e-mail it directly to marlawil@iastate.edu



To ensure consideration, please apply by **January 31, 2012**. We expect the successful candidate to be in place by August 16, 2012. If you have questions regarding this position, please contact Dr. Vitalij K. Pecharsky at vitkp@iastate.edu or vitkp@ameslab.gov. Please direct questions regarding the application process to employment@iastate.edu or to 1-877-477-7485 (toll-free).

Iowa State University is an Equal Opportunity/Affirmative Action Employer with NSF ADVANCE funding to broaden the participation of women and underrepresented minorities and enhance the success of all faculty in STEM fields.



NANOLITHOGRAPHY ENGINEER

Princeton University

The Princeton Institute for the Science and Technology of Materials (PRISM) Micro/Nano Fabrication Laboratory (MNFL) is looking for a Nanolithography Engineer. PRISM is a materials science research center at Princeton University. The Nanolithography Engineer will assume responsibilities for all processes and equipment including a Raith eLINE electron beam lithography system, two Suss mask aligners, a Heidelberg DWL66 laser pattern generator, a near-field holography table, and a Nanonex nanoimprinter. These responsibilities include mentoring and training students and other researchers, facilitating research projects by suggesting process improvements, troubleshooting tool problems, communicating with vendors, developing new processes, writing internal documentation for tools and processes, and investigating, procuring, and installing new tools that would enhance the PRISM MNFL research effort. This appointment will be made at the rank of Professional Specialist.

We are looking for an energetic team player with creativity, scientific curiosity, and problem solving skills. The candidate must have a PhD degree in Chemical/Electrical/Mechanical Engineering, Physics, Materials Science, or a related technical discipline, and a minimum of three years of research experience in photolithography and electron beam lithography systems and processes. Commitment to, and experience with, instructing and helping students is essential. The person must have a hands-on aptitude and attitude, and be capable of solving demanding technical and research problems.

Applicants should submit their resume, list of publications, and the names and addresses of three academic or professional references to <http://jobs.princeton.edu>, requisition #0110723.

Princeton University is an equal opportunity employer and complies with applicable EEO and affirmative action regulations. We strongly encourage applications from members of all underrepresented groups.