

Positions Available



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

**Faculty Position in
Microengineering for Energy
at the Ecole polytechnique fédérale
de Lausanne (EPFL)**

The Institute of Microengineering (IMT) within the School of Engineering at EPFL is seeking for its Neuchatel site, a tenure track assistant professor in the wider field of «green» integration technologies, in particular, for **micro/nano-engineering of energy systems**. Exceptionally qualified candidates may also be considered at a more senior level. We encourage applications from candidates with strong expertise in the area of micro-nano technology (MEMS/NEMS) or manufacturing of micro- and nano-systems and materials/components for energy generation and storage. The research program should be strongly linked to the fields of smart systems integration or energy management of complex systems.

The successful applicant is expected to establish an internationally-recognized research program aimed at technological development for sustainable development, in accordance with the general mission of IMT-EPFL at Neuchatel on «Green Manufacturing». In particular, the research program should enable the development of efficient, energy saving, industrial fabrication processes, such as additive fabrication process, allowing high flexibility and application versatility. It should lead to a new generation of sustainable, reusable, recyclable and environmentally-friendly devices and systems.

Applications are encouraged from candidates having strong scientific knowledge and industrial collaboration in the areas of, but not restricted to, ambient assisted living, watches, wearable devices, smart homes and building, smart textiles, as well as

sensors network. EPFL has first-class research facilities in micro / nanofabrication, robotics, mechatronics and microscopy. The successful candidate will work within IMT and is expected to collaborate with other EPFL units as well as other Swiss and international academic institutions and industry. He/she is expected to provide leadership in research and participate in undergraduate and graduate teaching. EPFL offers internationally competitive salaries, start-up resources and benefits.

Applications should include a cover letter with a statement of motivation, curriculum vitae, list of publications and patents, concise statement of research and teaching interests, and the names and addresses (including e-mail) of at least five references. Applications should be uploaded in PDF format to: <http://greentec-rec.epfl.ch>

The deadline for applications is **15 January 2010**.

Enquiries may be addressed to:

Prof. Juergen Brugger
E-mail: greentec-rec@epfl.ch

For additional information on EPFL, please consult the web sites: <http://www.epfl.ch>, <http://sti.epfl.ch>, <http://imt.epfl.ch>

EPFL aims to increase the presence of women amongst its faculty, and qualified female candidates are strongly encouraged to apply.

Faculty Positions

**IN MECHANICAL ENGINEERING,
UNIVERSITY OF MICHIGAN**

The Department of Mechanical Engineering, University of Michigan, Ann Arbor, seeks candidates for multiple full-time tenure-track faculty positions. We are interested in all candidates who have strong backgrounds in fundamental disciplines related to mechanical engineering. We aim to enhance the Department's research and education capability in the following thematic areas:

(1) Emerging manufacturing (e.g., personalized production, green energy manufacturing, nano manufacturing, biomedical manufacturing, manufacturing sustainability), and/or

(2) Future transportation systems (e.g., mobile robots, autonomous vehicles, alternative powertrains, transportation electrification).

One can learn more about the Department through reviewing the departmental webpage at: <http://me.engin.umich.edu/>.

Applicants should have an earned Ph.D. in mechanical engineering or related fields. The main focus of this search is on junior faculty, but senior level appointments may be considered for applicants with exceptional credentials and national/international stature. We seek candidates who will provide inspiration and leadership in research and will contribute proactively to teaching and to the diversity of the academic community. For best consideration, candidates are encouraged to apply now and certainly before January 5, 2010 as applications will be reviewed immediately upon receipt.

All applicants should submit in PDF format (1) a detailed resume, (2) a statement of research and teaching interests, and (3) the names and contact information of at least three references. Applications must be submitted electronically at <http://www.engin.umich.edu/apply/ME>. The University of Michigan is a non-discriminatory, affirmative action employer, and is responsive to the needs of dual career families.



The University of Michigan is an affirmative action, equal opportunity employer.



Faculty Position

The Department of Electrical Engineering, The Pennsylvania State University, invites nominations and applications for a tenure-track faculty position in the engineering of solar nanomaterials. Exceptional candidates at all levels are encouraged to apply. Preferred candidates for the position must hold a doctoral degree in an Engineering or related discipline with appropriate experience. The applicant must have the ability to teach effectively at both the undergraduate and graduate levels and to establish and maintain a strong, externally funded research program.

The ideal applicant should have demonstrated expertise in photovoltaic device design, advanced materials synthesis, modeling, and/or characterization to strengthen campus-wide interdisciplinary efforts on conversion of solar energy to electricity. Research programs of interest include: nanoscale materials synthesis and characterization for photovoltaic/solar/thermoelectric cells, computational tools to describe the interaction of semiconducting materials with electromagnetic energy, and photonic materials. More specifically, we seek individuals with expertise in the following areas: third-generation photovoltaics, organic and flexible photovoltaics, light-matter interactions at the nanoscale; and nanophotonics.

Applications for the position and questions about the search process may be addressed by e-mail to the Chair of the Search Committee, Prof. Craig Grimes (cgrimes@enr.psu.edu). To apply, please e-mail to this address a single PDF file containing: 1) curriculum vitae; 2) research plan statement, teaching interests and philosophy, and career objectives; and 3) the names, e-mail addresses, and telephone numbers of at least three professional references. Applications will be considered until the position is filled.

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

Opportunities as **limitless as Penn State.**
www.psu.jobs

Positions Available

TENURE-TRACK ASSISTANT PROFESSOR
Department of Physics



The Department of Physics at Lehigh University seeks to fill a tenure-track position at the Assistant Professor level beginning in August 2010. Candidates should have a PhD degree in Physics (or equivalent), a strong interest in teaching at both the undergraduate and graduate levels, and the ability to conduct a vigorous research program in Experimental Condensed Matter Physics of Nanoscale systems. The successful candidate is expected to become active in research areas such as quantum physics of nanoscale systems, energy applications, nanophotonics, nanoscale systems in bi-physics, and to have a strong expertise in nanofabrication.

The Department of Physics has established research programs in condensed matter physics, nanoscience and carbon nanomaterials, nonlinear optics and photonics, soft materials and biophysics, statistical physics, plasma physics, astrophysics, and atomic and molecular physics. We expect the successful candidate to strengthen and complement existing fields, to participate in interdisciplinary activities with faculty in other Departments, as well as at Lehigh's Center of Advanced Materials and Nanotechnology (<http://www.lehigh.edu/nano/>) and Center for Optical Technologies (<http://www.lehigh.edu/optics/>).

Applicants should e-mail a single PDF file containing a cover letter, a curriculum vitae, a statement of research and teaching interests, a list of publications, and the names and affiliation of three references, to the Chair of the Physics Search Committee, Department of Physics, Lehigh University, at inphys@lehigh.edu. Consideration of the candidates will commence on **January 10, 2010**.

The College of Arts and Sciences at Lehigh University is committed to increasing the diversity of the college community and curriculum. Candidates who can contribute to that goal are encouraged to apply and to identify their strengths or experiences in this area. Lehigh University is an Equal Opportunity Affirmative Action Employer. Lehigh University provides comprehensive benefits including partner benefits.

**POSTDOCTORAL RESEARCHER/
RESEARCH ASSOCIATE**
University of Kansas

A postdoctoral or research associate position is available immediately at the University of Kansas for a qualified individual in the area of characterization of structure/property/chemistry relationships in nanostructured materials by analytical electron microscopy. The successful candidate will have extensive experience in analytical TEM coupled with a good understanding of nanostructured materials. The successful candidate will have good communication and writing skills to interact with a dynamic group of experts affiliated with the NSF EPSCoR Kansas Center for Solar Energy Research. Specific areas of interest to this group include nanostructured materials for solar energy capture, conversion into electricity, and biofuels.

For more information and to apply, go to <http://jobs.ku.edu> and search for **Position 00207844**. Review of the applications will begin **December 15, 2009** and will continue until the position is filled. Inquiries can be made by email to jwu@ku.edu.

EO/AA Employer.



DIRECTOR
Center for Nanophase Materials Sciences (CNMS)

The Oak Ridge National Laboratory (ORNL), a premier science and energy laboratory, is seeking an outstanding research leader for the position of **Director, Center for Nanophase Materials Sciences (CNMS)**. The CNMS, one of five Department of Energy national nanoscience user facilities, is dedicated to the design, synthesis, characterization, and theory/modeling/simulation of nanoscale materials. The CNMS occupies a new, dedicated building with over 30 laboratories and a 10,000 sq. ft. nanofabrication clean room facility. Therefore, you will be provided with the ideal environment to create rich opportunities for collaborative research in a national laboratory environment.

MAJOR RESPONSIBILITIES:

- Defining and leading an innovative research program
- Attracting and retaining outstanding research staff
- Managing a \$20M annual operating budget and additional capital equipment budget

QUALIFICATIONS:

- PhD degree in physical sciences, engineering, or related field
- Greater than 10 years of professional research experience beyond the doctorate
- Greater than 8 years experience leading multi-disciplinary research groups

For a more detailed job description, and to apply, please visit our company website at <http://jobs.ornl.gov/> or www.ornl.gov.
Equal opportunity employer.

www.ornl.gov

One of the oldest institutions of higher education in this country, the University of Delaware today combines tradition and innovation, offering students a rich heritage along with the latest in instructional and research technology. The University of Delaware is a Land-Grant, Sea-Grant, Space-Grant institution with its main campus in Newark, DE, located halfway between Washington, DC and New York City. Please visit our website at www.udel.edu.

Faculty Positions in Mechanical Engineering
(all ranks)

The Department of Mechanical Engineering at the University of Delaware invites nominations and applications for three tenure-track faculty positions at the rank of assistant professor. Highly qualified candidates will be considered at the level of associate professor or full professor (tenure or tenure-track).

We are interested in candidates in any discipline of Mechanical Engineering but have particular interests in the general areas of composites, biomedical engineering, clean and sustainable energy, and robotics and control.

Applicants should hold a Ph.D. in mechanical engineering, or closely related field. Successful candidates are expected to have demonstrated excellence in innovative research and show the potential for high quality teaching and mentoring. For positions at higher ranks, an outstanding and internationally recognized research program, along with proven high-quality teaching and mentoring, is required.

Applicants should submit a curriculum vitae, a statement of research and teaching interests and achievements, and a list of at least four references to the Mechanical Engineering link at www.engr.udel.edu/faculty-search (preferred); or send by mail to ME Faculty Search Committee, College of Engineering, University of Delaware, Newark, DE 19716. Full consideration is guaranteed for applications received before January 1, 2010 (postmarked before 1/1 for applications sent by regular mail) but the search will continue until the positions are filled.

The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer which encourages applications from Minority Group Members and Women.

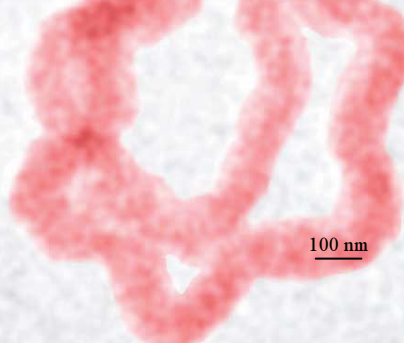
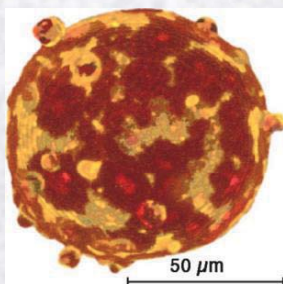
Faculty Opening in Materials Engineering

The Washington University in St. Louis School of Engineering and Applied Sciences invites nominations and applications for a tenure-track faculty position in materials engineering at the level of assistant professor. The applicant should have demonstrated expertise in advanced materials synthesis.

Our strategic plan emphasizes intersections of engineering with medicine, biology, and energy. However, opportunities for collaboration exist in many application areas, as well as in basic science. Research programs of particular interest include: adaptive materials, biomaterials, materials for sustainable energy, and nanoscale materials.

The successful applicant will be based in the Department of Mechanical, Aerospace, and Structural Engineering (<http://mase.wustl.edu/>), and will be expected to contribute to university-wide initiatives such as the Center for Materials Innovation, the International Center for Advanced Renewable Energy and Sustainability, the McDonnell Academy Global Energy and Environment Partnership, and/or the Nano Research Facility. Opportunities are available for joint appointments in departments throughout the university, including at the school of medicine.

An earned doctoral degree is required at the time of appointment. The applicant must have the ability to teach effectively at both the undergraduate and graduate levels and to establish and maintain a strong, externally-funded research program. Competitive start-up funding is available.



Mechanical, Aerospace & Structural Engineering



Applications and questions may be addressed by e-mail to the co-chair of the search committee, Prof. Guy Genin: materials_search@seas.wustl.edu

To apply, please e-mail to this address a single PDF file containing:

- 1) *curriculum vitae*;
- 2) *statements of research plan, teaching interests and philosophy, and career objectives (not to exceed 5 pages); and*
- 3) *the names, e-mail addresses and telephone numbers of at least three references.*

Review of applications will begin immediately, but applications will be accepted until the position is filled. Washington University is an Equal Opportunity and Affirmative Action Employer. Applications from women and under-represented minority groups are strongly encouraged.



Image credits: T. Daulton, G.M. Genin, K.M. Pryse, S.M.L. Sastry, S. Singamaneni

Positions Available

FACULTY POSITION
Mechanical Engineering

JOHNS HOPKINS
UNIVERSITY

The Johns Hopkins University, Department of Mechanical Engineering, invites applications for a full-time tenure-track faculty position in the general area of mechanics and materials. Modeling and simulations are of particular interest, but all outstanding candidates will be considered. Opportunities for interactions across the University include the Institute for NanoBioTechnology, the NSF MRSEC on Nanostructured Materials, the Whitaker Biomedical Engineering Institute, the Institute of Computational Medicine, the Center for Advanced Metallic and Ceramic Systems, and the NSF Engineering Research Center for Computer-Integrated Surgical Systems and Technology.

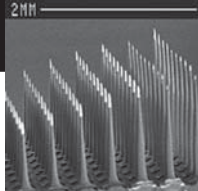
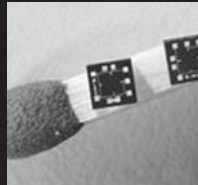
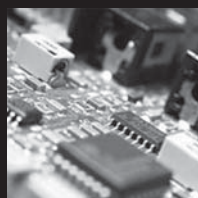
Preference will be given to applicants at the assistant professor level, but exceptionally qualified candidates at all ranks will be considered. The successful candidate must have a doctorate, and is expected to establish a strong, independent, internationally recognized research program as well as contribute fully to both undergraduate and graduate instruction.

All applications should be submitted electronically (before **December 15, 2009**) as a **single PDF document to me-search@jhu.edu**. Electronic applications should include a cover letter describing the principal expertise of the applicant, a statement of teaching and research interests and experiences, a complete resume, and the names of at least three references.

The Department is committed to building a diverse environment; women and minorities are strongly encouraged to apply. The Johns Hopkins University is an EEO/AA Employer.

POSTDOCTORAL RESEARCH
Nanotechnology
Air Force Research Laboratory

Seeking postdoctoral candidate with experience in nanomaterial synthesis and characterization, biofunctionalization of carbon nanotubes (CNTs), and metal-based nanoparticles. Requirements include: US citizens only; background security clearance; PhD degree in Biology, Molecular Biology, Engineering, Chemistry, Biochemistry, or related discipline; not more than five years of postdoctoral research experience; experience with molecular biology techniques; and multidisciplinary experience in nanobiotechnology. Contact Laura Cook at Recruiter@orau.org or 410-306-9204. See more details at <http://www.med.wright.edu/pham/hussain.html>.



The University is an AA/EO employer, encourages applications from women and minorities, and provides reasonable accommodations for known disabilities of applicants and employees.

TENURE-TRACK
POSITIONS

Department of Electrical and
Computer Engineering

The Department of Electrical and Computer Engineering, University of Utah, Salt Lake City, seeks applications to fill at least two tenure-track positions at the assistant, associate, or full professor level for an interdisciplinary research cluster in **Micro and Nanosystem Integration and Packaging**. We are particularly interested in candidates with backgrounds in electronic micro/nano-system integration and packaging, biocompatible materials and packaging, solid state devices, reliability, testing, and micro/nano system modeling and simulation.

Information on department research activities and curricula may be found at www.ece.utah.edu. The web site also has information on two more positions available in the department. Information on the College of Engineering can be found at www.coe.utah.edu. Successful candidates will conduct research with tenure-track appointments in the Department of Electrical and Computer Engineering, but may also be appointed in other departments such as Materials Science, Bioengineering, or Mechanical Engineering. Suitable candidates may be considered for joint appointments with the College of Science or the Medical School at the University of Utah.

These positions are part of the **Utah Science, Technology and Research Initiative (USTAR)**, which was funded by the Utah State Legislature to attract focused teams of outstanding researchers who have the potential to help build major research programs and create new technology that can ultimately lead to commercial products and/or new industries for Utah. The USTAR initiative is also supporting a new interdisciplinary building which will house a new nanofabrication laboratory and characterization facilities that will cater to solid state devices, MEMS, sensor and packaging research and development, as well as the handling of biomedical samples. The building will facilitate communication for researchers such as the ones hired under this solicitation, from engineering, sciences, and the medical school, as well as offering lab access for selected industrial stake holders. Information on the USTAR initiative can be found under www.ustar.utah.gov. Candidates for this initiative should have a demonstrated track record of successful, funded projects and an interest or track record in technology commercialization, entrepreneurial, or industrial experience.

The positions are also associated with and partially supported by the **Fraunhofer Institute for Reliability and Microintegration IZM**, and leverage a strong collaborative and international research program with a Fraunhofer IZM branch laboratory in Utah. Fraunhofer support includes in-house access to Fraunhofer infrastructure, know-how, and resources. Selected positions may be associated with joint Fraunhofer appointments, possibly at a center director's or co-director's level.

Résumés with names, contact information for at least three references, and statements for research and teaching goals should be sent to:

Ms. Debbie Sparks, USTAR Faculty Search Committee
University of Utah, Electrical and Computer Engineering Department
50 South Central Campus Drive, Room 3280
Salt Lake City, UT 84112-9206

Email applications are accepted at dsparks@ece.utah.edu. Applications will be reviewed starting September 1, 2009, and will be accepted until the positions are filled.

Faculty responsibilities include developing and maintaining an internationally recognized research program, effective classroom teaching at the undergraduate and graduate levels, and professional service. Applicants must hold a PhD degree by the time of appointment. The University of Utah values candidates who have experience working in settings with students from diverse backgrounds and possess a strong commitment to improving access to higher education for historically underrepresented students.

Positions Available



MATERIALS ENGINEER

U.S. Army Research Office

Applications are being solicited for a Materials Engineer, DB-0806-03 (equivalent to the GS-12/13 grade levels), \$69,704 to \$107,756 per annum, or a Materials Engineer, DB-0806-04 (equivalent to the GS-14/15 grade levels), \$97,948 to \$149,782 per annum. Salary within the ranges above includes a locality adjustment and depends upon individual qualifications and salary history. The position is located at the U.S. Army Research Office in Research Triangle Park, NC.

The incumbent develops, manages, and oversees the Army's extramural research program in materials science, focusing on synthesis and processing of materials (both experiment and theory), and identifying and fostering scientific achievements with application to Army material systems. Expertise is required in the areas of fabrication, synthesis, and processing of advanced materials. Duties include:

- Initiating new research projects to advance the frontiers of materials science
- Stimulating proposals to create unprecedented scientific opportunities relevant to Army needs
- Analyzing and evaluating proposals
- Communicating with grantees and contractors
- Reviewing and analyzing research reports, and ensuring their effective distribution
- Stimulating technology transfer to both Army and civilian users
- Evaluating grantee and contractor performance
- Disseminating program policies and research results
- Maintaining awareness of Army in-house R&D programs
- Developing and presenting briefings and research summaries that highlight projects, objectives, progress, accomplishments and emerging opportunity areas within materials science to Army leadership and the scientific community
- Initiating and carrying out workshops, conferences, and symposia addressing emerging materials research initiatives
- Serving as the principal Army advocate and representative for basic research activities and needs in synthesis and processing of materials.

In order to maintain scientific acumen, the incumbent may perform research at a local university for up to one day per week. Travel up to 25% of the time may be required. Outstanding verbal and written skills are required. Applicants must show successful completion of a full 4-year course of study in an accredited college or university leading to a bachelor's or higher degree in materials science, or a combination of education and experience equal to a GS-12/13 level position in the Federal government for DB-03 or GS-14/15 for DB-04. An advanced degree at the PhD level preferred. Experience must have been in or related to the work of the position and have equipped the applicant with the knowledge, skills, and abilities to successfully perform the duties of the position. Applicants must be U.S. citizens, be able to obtain a secret clearance, and comply with provisions of the Ethics in Government Act.

Interested individuals must apply electronically following instructions at www.usajobs.opm.gov or at www.cpol.army.mil. Vacancy Announcement numbers are NEAC09559221D/NEAC09559221 for the DB-04 and NEAC09560030D/NEAC09560030 for the DB-03. Opening date for this position is October 5, 2009 and **closing date will be December 4, 2009**. If you have questions, please contact Mrs. Paula Valdez at 301-394-2109, or by e-mail at Paula.geny.valdez@us.army.mil, or Wanda Wilson, Administrative Officer, Army Research Office at 919-549-4296 or by e-mail at wanda.wilson@us.army.mil.



ASSISTANT PROFESSOR
Department of Physics



The UAB Department of Physics, www.phy.uab.edu, invites applications for a tenure-track faculty position at the assistant professor level in Bio Micro- & Nano-Electromechanical Systems (BioMEMS/NEMS) and other nanoscale structures for biomedical applications. Preference will be given to candidates with a PhD degree in physics, but all related disciplines are invited to apply. The faculty member will be affiliated with the Center for Nanoscale Materials and Biointegration (CNMB) (www.uab.edu/cnmb) at UAB and will have access to the core facilities supported by the center. The successful applicant will be expected to seek and obtain extramural research funding and have a strong commitment to excellence in teaching and supervising research at the graduate and undergraduate levels.

Applicants should send a CV, a description of their research plans, a statement of teaching interests and philosophy, and the names (including address, telephone, fax, and email address) of at least three references and arrange for at least one letter of reference to be sent to:

Yogesh K. Vohra
Chair, Search Committee
University of Alabama at Birmingham
Department of Physics
1530 3rd Avenue S., CH 310
Birmingham, AL 35294-1170
ykvohra@uab.edu

Screening of applicants will begin immediately and continue until the position is filled. Partial support for this faculty position is provided by the National Institute of Biomedical Imaging and Bioengineering (NIBIB) under a P30 grant mechanism with funds from the American Recovery and Reinvestment Act (ARRA) of 2009. The Department of Physics and the University of Alabama at Birmingham are committed to building a culturally diverse workforce and strongly encourage applications from women and individuals from underrepresented groups. UAB has an active NSF-supported ADVANCE program and a Dual Career Assistance Program to support and offer resources to help spouses and partners of newly recruited UAB faculty.



UAB is an Affirmative Action/Equal Employment Opportunity employer.

Positions Available

DEPARTMENT OF ENERGY

Computational Science Graduate Fellowship



PROGRAM HIGHLIGHTS

- \$32,400 yearly stipend
- Payment of all tuition and fees
- Workstation purchase assistance
- Yearly conferences
- \$1,000 yearly academic allowance
- 12-week research practicum at a DOE Laboratory
- Renewable up to four years

APPLICATION DEADLINE:

January 14, 2010

For more information, visit: www.krellinst.org/csgf

Sponsored by the U.S. Department of Energy Office of Science and NNSA Programs. Administered for USDOE by the Krell Institute under contract DF-FG02-97ER25308. This is an equal opportunity program that is open to all qualified persons without regard to race, sex, creed, age, physical disability or national origin.



The Krell Institute
1609 Golden Aspen Drive,
Suite 101
Ames, IA 50010
515.956.3696
csgf@krellinst.org
www.krellinst.org/csgf



FACULTY OPENINGS
Department of Mechanical Engineering
University of Minnesota

The Department of Mechanical Engineering at the University of Minnesota invites applications for two openings at the level of tenure-track assistant professor or untenured associate professor. Other levels of appointment may be considered in exceptional cases. The Department places higher value on the overall creativity and scholarly originality of the candidate's research than on his or her fit into a particular area of mechanical engineering.

The Department has about 40 faculty and grants about 200 Bachelors, 40 Masters and 20 Doctoral Degrees every year. The candidate's engineering expertise and documented research activities must demonstrate a strong potential toward enhancing both the Department's research and the undergraduate and graduate teaching missions. Successful candidates are expected to build strong, externally-funded, highly-visible research programs and to become recognized leaders in their field.

The University of Minnesota is one of only a few comprehensive land-grant universities that are located in the heart of a major metropolitan area. The Minneapolis-St. Paul area is rated among America's most livable cities and is home to 19 Fortune 500 companies. More than 4000 companies have been created by alumni and faculty of the University's college of engineering and science.

Review of applications will begin immediately and applications will continue to be received until the positions are filled. Additional information and application instructions can be found at www.me.umn.edu. Candidates may contact the chair of the search committee at searchchair@me.umn.edu.

The University of Minnesota is an equal opportunity educator and employer. Women and minorities are encouraged to apply.



TEMASEK RESEARCH FELLOWSHIP

The Temasek Research Fellowship (TRF) is a prestigious scheme aimed at recruiting outstanding young researchers at the post-doctoral level to undertake research as Principal Investigators and lead teams to undertake defence-related research in the Nanyang Technological University (NTU).

The TRF is a 3-year Fellowship with an option to extend up to 3 years. The Temasek Research Fellow (TRF-RF) may be offered a faculty appointment with NTU at the end of their term.

In addition to an attractive remuneration package that will commensurate with qualification and experience, the TRF-RF will be provided a research grant to pursue his/her research at Temasek Laboratories at NTU or other research entities at NTU.

For more information and application procedure, please visit NTU at <http://www.ntu.edu.sg/trf>

Closing Date: 22 December 2009

Short-listed candidates will be invited for an interview and scientific presentation expected to be held in March 2010

POSTDOCTORAL/RESEARCH PROFESSORSHIP

Department of Mechanical Engineering

UNIVERSITY of
HOUSTON

The Department of Mechanical Engineering at the University of Houston (UH) is seeking to fill two postdoctoral researcher/Research Professor positions. One position is for a lead researcher to manage a program to develop high-efficiency, near-single-crystalline thin film photovoltaics on polycrystalline substrates based on novel technologies and state-of-the-art equipment at UH. The second position is to develop novel architectures employing nanowires for energy applications. Details can be found at <http://www.egr.uh.edu/me/faculty/selva>.

Applicants should hold a PhD degree in an Engineering Discipline, Physics, or Chemistry. Candidates for the PV position should have a research specialization in Photovoltaics and in thin film deposition. Experience in setting up facilities for processing, characterization, and testing of photovoltaic materials is required. Preference will be given to candidates who have experience in metal organic vapor phase epitaxy (MOVPE) of III-V materials and plasma enhanced chemical vapor deposition (PECVD). Applicants for the second position should have demonstrated research excellence in controlled growth of nanowires by techniques such as Chemical Vapor Deposition and hydrothermal processes and experience in energy applications.

Applicants should submit a Curriculum vita, lists of publications, and references to selva@uh.edu.

The University of Houston is an Equal Opportunity/Affirmative Action employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.

Positions Available

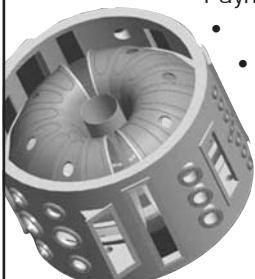
DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION

Stewardship Science Graduate Fellowship

Academic areas of interest include: high-energy density physics, low-energy nuclear science and properties of materials under extreme conditions and hydrodynamics.

BENEFITS INCLUDE:

- \$32,400 yearly stipend
- Payment of all tuition and fees
- \$1,000 yearly academic allowance
- Yearly conferences
- 12-week research practicum
- Renewable up to four years



**APPLICATION DEADLINE
JANUARY 12, 2010!**
www.krellinst.org/ssgf



This program is open to U.S. citizens and permanent resident aliens studying at a U.S. university who are senior undergraduates or are in their first or second year of graduate study. This is an equal opportunity program and is open to all qualified persons without regard to race, sex, creed, age, physical disability or national origin.



The Krell Institute
1509 Golden Aspen Drive,
Suite 101, Ames, IA 50010
515.956.3696
www.krellinst.org/ssgf

**TENURE-TRACK POSITION
Materials Science and Engineering**



The University of North Texas seeks outstanding applicants for a tenure-track position in Materials Science and Engineering (MTSE). Applicants are sought at the Assistant Professor level. Salaries, benefits, and teaching loads typical for a major research university can be expected.

Applicants must have an earned doctorate in Material Science and Engineering, or related field and have demonstrated expertise in High Resolution Transmission Electron Microscopy, and have experience in developing and employing advanced and emerging analytical electron microscopy and spectroscopy techniques for high quality research in metallic, ceramic, heterogeneous, or organic/inorganic-bio materials and their interactions at the nano and atomic scales. Preference will be given to applicants who can demonstrate a commitment to teaching and research, and describe their strategy to develop and sustain a cutting-edge research program with funding from the sources external to the university. Preference will also be given to applicants who provide a detailed plan to collaborate with computational and other experimental materials scientists within the MTSE department and for multidisciplinary activities involving faculty/scientists outside MTSE.

Applicants must apply online at <http://facultyjobs.unt.edu>. Screening of applications will begin on **November 16, 2009** and will continue until the search is closed.

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



**FACULTY POSITIONS
Department of
Mechanical Engineering**

The Department of Mechanical Engineering at Boston University anticipates filling up to two openings for tenure track or tenured faculty positions in the following areas: fluid and solid (bio) mechanics at all scales (macro to nano), energy conversion and/or energy systems, materials for energy applications, and the application of optics and/or acoustics to cutting-edge problems in material science and engineering, mechanical systems, or biomedical instrumentation.

Although candidates at all academic ranks will be considered, preference will be given to applicants at the junior level. Candidates with interdisciplinary research interests that transcend the traditional boundaries of ME are also encouraged to apply and take advantage of opportunities for joint appointments within the Division of Material Science and Engineering, the Division of Systems Engineering, as well as other college departments.

In addition to a relevant, earned PhD degree, qualified candidates will have a demonstrable ability to teach effectively, develop successful and sustainable research programs in their area of expertise, and contribute to the tradition of excellent scholarship that characterizes the Boston University ME department. BU is committed to expanding its culturally diverse faculty and strongly encourages applications from female and minority candidates.

The ME Department offers PhD, MS, and BS programs in Mechanical Engineering (with undergraduate concentrations in Manufacturing and Aerospace Engineering) and Masters programs in Manufacturing Engineering. The Department is also strongly integrated within college-wide undergraduate concentrations in Energy Technologies and Environmental Engineering and in Nanotechnology. The Department has 40 full time faculty who attract an annual research portfolio approaching \$12 million.

Applicants should prepare a submission dossier consisting of a curriculum vita, the names and addresses of three references, and a letter of interest in which they discuss how they envision their future as teachers, mentors, and researchers. Please send the dossier to:

Professor J. Gregory McDaniel
Chair, Search Committee
Department of Mechanical Engineering
Boston University
110 Cummington Street
Boston, MA 02215
Electronic Submissions to MEsearch@bu.edu are preferred.

Boston University and the Department of Mechanical Engineering are equal opportunity/ affirmative action organizations.

**FACULTY POSITION
University of Southern California**

The Mork Family Department of Chemical Engineering and Materials Science at the USC Viterbi School of Engineering is interested in recruiting faculty at all levels. Candidates with expertise and research and teaching interests in the area of materials for alternative energy applications, such as batteries, fuel cells, solar, and wind energy are particularly encouraged to apply. Qualified applicants should contact Professor Theodore Tsotsis by phone at 213-740-2227 or by e-mail at tsotsis@usc.edu.

USC is an Affirmative Action/Equal Opportunity Employer and strongly encourages applications from women and members of underrepresented groups.

Positions Available


**Associate or Full Professor Physics and
Electrical Engineering Departments**

The University at Buffalo (SUNY) seeks a senior level faculty member (Associate or Full Professor) for a joint appointment in the Physics and Electrical Engineering Departments. Excellent candidates are sought with expertise in growth and characterization of semiconductor nanostructures using molecular beam epitaxy; fabrication of novel electrical, optical and magnetic devices based on quantum effects enabled by various nanostructures including quantum dots, quantum wires and quantum wells; and characterization of performance of the resulting devices. The successful candidate will be a leader of a multidisciplinary research effort based on a recently purchased Riber III-V MBE growth system which is part of facility comprising three coupled growth chambers. The successful candidate will also have the opportunity to work within an established collaborative environment at the University. The UB2020 strategic investments (www.buffalo.edu/ub2020) of new faculty and facilities over the past five years have established multidisciplinary groups (Strategic Strengths) in the areas of Integrated Nanostructured Systems; Extreme Events; Molecular Recognition in Biological Systems and Bioinformatics; and Health and Wellness Across the Lifespan. The advertised position will primarily be associated with the Integrated Nanostructured Systems Strategic Strength.

Applicants must possess an earned doctorate in addition to having a multidisciplinary background in Physics and/or Electrical Engineering.

Applicants for this position will be accepted until December 1, 2009, or until the position is filled. The appointment may begin as soon as the position is filled, but no later than August 2010.

Resume, cover letter and application must be submitted online at:
www.ubjobs.buffalo.edu referencing posting number 0900347.

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

**FACULTY POSITION
MOLECULAR DESIGN INSTITUTE
Department of Chemistry
ARTS AND SCIENCE**

The Department of Chemistry and the newly established Molecular Design Institute (MDI) at New York University invites applications for a faculty appointment in supramolecular materials chemistry, preferably with expertise in polymer chemistry. Applications at all ranks are welcome. The anticipated start date is September 1, 2010, pending budgetary and administrative approval. The appointee will play an active role in the development of the MDI, an initiative within the Department of Chemistry that is part of the continuing expansion of faculty and facilities in the Faculty of Arts and Sciences at New York University.

Applicants should have an outstanding record of research and a commitment to teaching. Applications should include a curriculum vitae, a list of publications, and statements of future research and teaching plans. Tenure-track applicants should include a minimum of three reference letters. All correspondence should be sent to **Chair, MDI Faculty Search Committee, Department of Chemistry, New York University, 100 Washington Square East, New York, NY 10003. Review of applications will begin November 1, 2009. Applicants are welcome to visit <http://www.nyu.edu/pages/chemistry> for more details.**


NEW YORK UNIVERSITY

NYU is an Equal Opportunity/Affirmative Action Employer.

**SENIOR RESEARCH CHEMIST
FUJIFILM**

**FUJIFILM Electronic Materials USA, Inc., Mesa, Arizona,
seeks Senior Research Chemist.**

DUTIES:

Responsible for design, development, and commercialization of new post etch, post ash, and post CMP cleaners and removers for copper and aluminum IC processes. Responsibilities include designing and managing new product development projects under rigorous business and customer timelines. Specific activities include; investigate and develop new chemical formulations for cleaning integrated circuit wafers under maintaining awareness of the status of intellectual property field and develop new IP cases, managing product qualification on customer wafers, generating and communicating product data and technical reports internally and to customers, and writing and delivering presentations at industrial conferences and consortia.

REQUIREMENTS:

Doctorate in Chemistry with at least five years prior research or post-doctoral R&D experience in product development in advanced technologies for CMP or electro chemical processing. Requires experience with Si wafer device processing and demonstrated proficiency in wet processing tool operation and process implementation. Requires experience in developing and applying inorganic solution chemistry and electrochemistry to meeting customer needs. Must have strong comprehension of surface cleaning methods and sciences, and experience in the design of novel composition formulations for advanced semiconductor process chemicals. Must be proficient in design of experiments, technical writing, literature search processes and methods, and Intellectual Property processes and methods. Must be able to communicate and work effectively with peers and customers.

APPLY TO:

Lora E. Gentles, SPHR
Human Resources Manager
6550 S. Mountain Road, Mesa, AZ 85212
Fax: 480-987-7096
E-mail: lora_gentles@fujifilm-ffem.com


**MATERIALS
RESEARCH
SCIENTISTS**

UES, Inc., a growing R&D company in Dayton, OH, invites applications from researchers with a PhD degree in materials science or related field to fill scientist positions available immediately. The ideal candidates will have expertise in ceramics processing for structural, optical, or electrical ceramics, or experimental methods in life prediction and behavior of fiber-reinforced ceramic composites; modeling experience will be a benefit but not required. The positions involve working with a group of scientists who conduct R&D through an on-site contract at the Materials and Manufacturing Directorate, Air Force Research Laboratory at Wright-Patterson Air Force Base. Experience with electron-optical methods to characterize microstructures is preferred. Positions require US citizenship or permanent residency. UES offers a competitive salary commensurate with experience and a comprehensive benefit package. Qualified candidates are encouraged to send resume via e-mail to hr@ues.com.

UES is an Equal Opportunity Employer

Positions Available



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Professor of Nanoscale Multifunctional Ferroic Materials and Devices

The Department of Materials Science of ETH Zurich (www.matl.ethz.ch) invites applications for a professorship of Nanoscale Multifunctional Ferroic Materials and Devices.

Activities from basic research to devices including potential new applications are anticipated.

It is expected that close, collaborative relationships with other department members, both theoretical and experimental, in all materials classes will be established. The professor will be expected to teach students in Materials Science at all levels, as well as holding special courses for other disciplines (i.e. physics, electrical engineering, chemistry). He or she will be expected to teach undergraduate level courses (German or English) and graduate level courses (English).

The successful candidate with strong physical and chemical background has several years of experience in the fields of structure-processing relations of ferroic materials, ferromagnetic properties or with transport phenomena in highly correlated systems, non-trivial size effects in complex inorganic materials and heterostructures.

Please submit your application together with a curriculum vitae and a list of publications to the President of ETH Zurich, Prof. Dr. Ralph Eichler, Raemistrasse 101, 8092 Zurich, Switzerland, no later than November 30, 2009. With a view towards increasing the proportion of female professors, ETH Zurich specifically encourages female candidates to apply.

**POSTDOCTORAL RESEARCH ASSOCIATES
The Center for Autonomous Solar Power (CASP)**



Five Postdoctoral Research Associates are sought for the new CASP center with focus on thin film solar cells on flexible platforms, efficient electricity storage devices, and integrated solar power systems. For complete job descriptions along with position requirements, go to:

<http://research.binghamton.edu/documents/PostDocSolarCells9-21-09.pdf>
<http://research.binghamton.edu/documents/PostDocSupercapacitor9-21-09.pdf>

The Research Foundation of State University of New York at Binghamton is an Equal Opportunity/ Affirmative Action Employer

**ASSISTANT PROFESSOR
Renewable Energy Materials
Research Science and
Engineering Center
Colorado School of Mines**



Colorado School of Mines Renewable Energy Materials Research Science and Engineering Center (REMRSEC), in collaboration with the National Renewable Energy Laboratory, invites applications for a tenure-track Assistant Professor level position within the field of renewable energy. The successful candidate will join the faculty of the Mines department matching their disciplinary background and will have a joint appointment at nearby NREL.

The position requires a PhD degree in a science or engineering field with appropriate postdoctoral experience or the equivalent, and the demonstrated potential for successful teaching, scholarship, and service. Applicants must possess excellent interpersonal and communication skills and be committed to excellence in research and teaching at both the undergraduate and graduate levels. For a complete job announcement, more information about the position and the university, and instructions on how to apply, please visit http://www.mines.edu/Academic_Faculty.

Mines is an EEO/AA employer

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KAIST

GRADUATE SCHOOL OF EEWS AT KAIST
(WCU) ENERGY SCIENCE AND ENGINEERING



► **Tenure-track Faculty Position in Energy and Environment**

The Graduate School of EEWS at KAIST invites outstanding candidates for multiple tenure-track faculty positions in the fields broadly defined as Energy and Environment. Since the School (EEWS) is highly interdisciplinary in nature, exceptional candidates with any background with the common goal to solve important energy and environmental problems, in both fundamental and applied sciences, are kindly encouraged to apply. Interested candidates are welcome to visit our website for more details about the position. (<http://eewseng.kaist.ac.kr>)

► **Application area:**

- ◆ Renewable Green Energy Alternatives, Seawater Desalination, Greenhouse Gas Sequestration, Biocatalysis, Photocatalysis, Artificial Photosynthesis, Solar Energy, Fuel Cells, Hydrogen Energy, Secondary Battery, Mesoporous Materials, Computational Materials Design

► **Qualifications for application:**

- ◆ Phd degree holders (or expecting to obtain a doctorate degree before the date of employment).
- ◆ Lecturing in English

► **Required documents to be submitted to the Department Chair**

- ◆ Cover letter (in English)
- ◆ CV (including Publication list)
- ◆ Research plan (3-5 pages)
- ◆ Teaching plan (1 page)
- ◆ Three letters of recommendation (including letters by academic advisors)

► **Send an application package to**

- ◆ Prof. Jeung Ku Kang, the head of the department (jeungku@kaist.ac.kr) or via mail to
- ◆ Head of the department, the Graduate School of EEWS, 2163, N5, KAIST, 373-1 Guseong-dong, Yuseong-gu, Daejeon 305-701, Republic of Korea

► **Inquiries:**

- ◆ Administration Office of EEWS at KAIST
Tel: +82-42-350-4135 (shin79@kaist.ac.kr)
Fax: +82-350-4130
Website: <http://eewseng.kaist.ac.kr>

Energy, Environment, Water, and Sustainability