

## Positions Available



# KAUST KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

## Positions Available

### High Resolution Tomography and Micro-Structural Control Laboratory

The High Resolution Tomography and Micro-Structural Control Laboratory is targeted to be a research leader in the field and offers some of the most advanced facilities in the world for microscopy and micro-analysis. As such, it seeks to develop expertise and understanding of the relationships between the structure and function of physical, chemical, and other systems. It also aims to provide leadership in the development of innovation and ingenuity in science and engineering, and is seeking to recruit outstanding **Postdoctoral members** and **PhD Students** to advance this aim.

King Abdullah University of Science and Technology (KAUST) is being established in Saudi Arabia as an international graduate-level research university dedicated to inspiring a new age of scientific achievement that will benefit the region and the world. The admission of students; the appointment, promotion, and retention of faculty and staff; and all the educational, administrative, and other activities of the University shall be conducted on the basis of equality, without regard to race, colour, religion, or gender.

**KAUST invites applications for a Laboratory Manager, four Postdoctoral, and four PhD positions at the High Resolution Tomography and Micro-Structural Control Laboratory in the following topics:**

- Thermodynamics and phase separation in constitutional alloys and compounds
- Nano-crystalline materials and functional thin layers
- Numerical modeling of field evaporation and computational material physics

High priority will be given to the candidates exhibiting adequate experimental experience with the Atom Probe Tomography and High Resolution Transmission Electron Microscopy. The ideal candidate will have exceptional communication, interpersonal, and problem solving skills, and the capacity to operate sophisticated scientific instrumentation. Skills in standard and advanced 3D visualization computer programs will be essential, as well as strong organizational and presentation skills and the ability to work both independently and in a team. In addition, the appointees will be committed to understanding and servicing the technical requirements of cooperation partners, and be willing to undertake national and international business travel. Candidates are also expected to relocate with their families and spouses to the campus site in Thuwal, Saudi Arabia.

An earned PhD degree in Materials Science or a related science or engineering discipline, evidence of the ability to pursue a programme of research, and a strong commitment to graduate teaching are required for the Laboratory Manager and Post-Doc employees. Appointments will be for one to three years for Post Docs and might exceed up to five years for the Lab Manager. A successful PhD candidate will be expected to have an outstanding honours BSc or MSc degree with an average GPA of better than 3.5 over 4. Appointments of PhD Students will be for three to five years depending on qualification.

Applications, including a curriculum vita, brief statements of research, and the names and contact details of at least two referees, should be sent to the Search Committee by electronic mail to [talaat.kassab@kaust.edu.sa](mailto:talaat.kassab@kaust.edu.sa).

Please note that the Search Committee may also appoint additional referees at its discretion. The review of applications will begin in July 15, 2009, and applicants are strongly encouraged to submit applications as soon as possible; however, applications will continue to be accepted until all available positions have been filled. Inquiries may be sent to: Prof. Dr. Tala'at Al-Kassab at [talaat.kassab@kaust.edu.sa](mailto:talaat.kassab@kaust.edu.sa).

KAUST is located on the Red Sea at Thuwal (80 km north of Jeddah). Opening in September 2009, KAUST welcomes exceptional researchers, faculty, and students from around the world. A generous compensation package will be offered that includes: a very competitive salary; housing; health care (medical and dental); 30 days annual vacation plus annual repatriation ticket. Relocation expenses to Saudi Arabia will also be included. Further information about KAUST can be found at <http://www.kaust.edu.sa/>.



## Positions Available



The Department of Material- and Geosciences is offering a

### Full Professorship (W 3) for Functional Materials

(Ref. No. 211)

to be occupied by the Spring Term 2010.

We are seeking an outstanding personality and internationally visible scientist with strong credentials in the field of Functional Materials. Possible topics of interest include Functional Composites, Materials for Energy Conversion and Storage, Smart Materials or Solid State Ionics. Novel materials shall be prepared and characterized, in tight collaboration with colleagues in the Department. Active involvement in collaborative research with the faculties of chemistry, physics and electrical engineering are expected.

Successful candidates will dedicate themselves to excellence and innovation in both under-graduate and graduate education in materials science. Lectures at the graduate level can be held in the English language.

The position is tenure or tenure track with a remuneration package commensurate with experience and qualifications, following the new German "W-Besoldung" category. The regulations for an employment are specified under §§ 70 and 71 HHG (Hessisches Hochschulgesetz). Candidates who hold a public servant status (Beamtenverhältnis) can be reappointed under the same status.

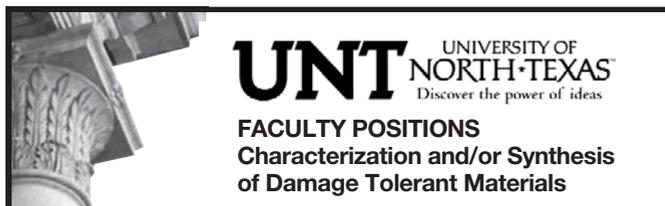
The Technische Universität Darmstadt is an equal opportunity, affirmative action employer and encourages applications of qualified women. Handicapped persons will be preferentially considered when equally qualified.

Please send your written application including the usual documents (CV, list of publications and grants, scientific and teaching career records, short description of research plan, copies of certificates) to the Technische Universität Darmstadt, Dekan des Fachbereichs 11, Material- und Geowissenschaften, Petersenstr. 23, 64287 Darmstadt, by mentioning above code number. An electronic copy, preferentially in PDF-format, is also requested. Questions concerning the position can be directed via email to Prof. W. Donner at [wdonner@tu-darmstadt.de](mailto:wdonner@tu-darmstadt.de).

**Deadline: September 30-2009**

*Place Your Ad Today!*

**Contact Mary E. Kaufold  
at 724-779-8312  
or [kaufold@mrs.org](mailto:kaufold@mrs.org)**



Applications are invited for a full professor position in the area of characterization and/or synthesis of damage tolerant materials at the University of North Texas (UNT). In the past five years, materials research at UNT has grown significantly adding over ten faculty in the departments of Materials Science and Engineering, Chemistry, and Physics working with metals, ceramics, polymers, micro- and opto-electronic materials, nanomaterials, biomaterials, materials for renewable energy, and computational materials science with funding from federal (e.g., NSF, NIST, AFOSR, DOE, and ARL) and non-federal (TI, GM, Sematech, SRC, etc.) agencies. UNT has acquired an excellent materials processing, testing, and characterization facilities including a three dimensional atom probe, an analytical high-resolution TEM, a FIB/FESEM, an environmental SEM, two XRD systems, an AFM, and new Raman and FTIR systems, and a new XPS/AES system. These facilities are part of the recently formed Center for Advanced Research and Technology (CART) at UNT, which is an interdisciplinary center focused on engineering and applied sciences (physics, chemistry, and biology).

UNT has a strong research effort in computational materials and is concurrently searching for an additional five positions. This new faculty member will be expected to both lead and work closely with both experimental and computational UNT faculty to forge national and international collaborative research proposals to federal, state, and private entities. Information about the department can be found at [www.mtsc.unt.edu](http://www.mtsc.unt.edu).

The successful candidate should have extensive experience in either synthesis of functionally-graded, nanoscale materials development, self-repairing structures, or characterization and analysis of materials at various scales. An earned doctorate in Materials Science and Engineering, Chemistry, Mechanical Engineering, or related field is required. Successful acquisition of US Federal funding is preferred. Depending on the candidate's interest and background, the successful candidate can be in the Materials Science and Engineering, Mechanical Engineering, Physics, or Chemistry departments. Joint appointments are possible, if desired. The successful candidate may have the opportunity to serve as the Director of CART.

Applicants must submit a cover letter, curriculum vitae, a statement of research interests and plans to collaborate with current UNT faculty, full publication list, an external funding history, and the names of three references to:

Multiscale Damage Characterization Search Committee  
Department of Materials Science and Engineering  
University of North Texas; 1155 Union Circle #305310  
Denton, TX 76203-5017

Screening of applications will begin upon receipt and continue until the search is closed.

Located 35 miles north of the Dallas/Ft. Worth Metroplex, UNT is the fourth largest university in Texas and is a Class I-Doctorate Granting Institution. UNT currently has over 34,000 students in 93 bachelors, 104 masters, and 49 doctoral programs. The DFW Metroplex is an economically vibrant region of over 6 million people, with a low cost of living, numerous industrial establishments, and excellent school districts. This area and the university provide excellent cultural and educational opportunities as well as exceptional employment opportunities for spouses.

AA/ADA

Positions Available



OAK RIDGE NATIONAL LABORATORY

Managed by UT-Battelle for the Department of Energy

**DIRECTOR**

**Center for Nanophase Materials Sciences (CNMS)  
Oak Ridge National Laboratory**

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 will include:**

- 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 include:**

- 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](http://www.ornl.gov).

*Equal opportunity employer*



**3M HARRY HELTZER MULTIDISCIPLINARY  
CHAIR IN SCIENCE AND TECHNOLOGY  
Institute of Technology  
University of Minnesota**

The Graduate School and the Institute of Technology at the University of Minnesota–Twin Cities, Minneapolis, MN, USA, invites applications and nominations for the position of 3M Harry Heltzer Multidisciplinary Chair in Science and Technology. This is a tenured and endowed position at the rank of associate or full professor (dependent upon qualifications and experience) in the area of physical and biological structures characterization using microscopy and imaging. Candidates must have outstanding academic and research records, with several years of successful research and teaching experience. A PhD degree and dedication to teaching, graduate student advising, and regular and sustained interaction with industry are required.

Candidates are sought whose research agenda will contribute to building cross-disciplinary and cross-college collaboration in one or more areas of strategic importance university-wide, including within the Institute of Technology and with other units at the University of Minnesota. This endowed chair is intended to foster industry-university research interaction and collaboration while advancing scientific and technological expertise in new frontiers of knowledge relevant to the Institute of Technology and 3M. Candidates with a background in any relevant areas of science or engineering are encouraged to apply. Department affiliation will depend on the candidate's area of expertise, with the possibility of a joint appointment with one or more units in the Institute of Technology or elsewhere in the University.

Applications should be submitted online at <https://employment.umn.edu>, under **Req. # 154636**, and include a cover letter, curriculum vitae (including list of publications), research description/plan, statement of teaching interest, and contact information for three references. Review of applications will begin immediately and continue until the position is filled. For further information, contact Douglas Ernie at [ernie@umn.edu](mailto:ernie@umn.edu).

*The University of Minnesota is an equal opportunity educator and employer.*



**PROGRAM DIRECTOR  
Division of Materials Research**

**National Science Foundation, Arlington, VA**

The National Science Foundation's Division of Materials Research (DMR) is seeking qualified candidates for a Program Director position in the Materials Research Science and Engineering Centers (MRSEC) Program.

Within the Division (DMR), the MRSEC program supports materials research of scope and complexity that would not be feasible under traditional funding of individual research projects. The MRSECs constitute a spectrum of coordinated centers of differing scientific breadth and administrative complexity that may address any area (or several areas) of materials research. Further information about the program can be found at [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5295&org=DMR&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5295&org=DMR&from=home) and at the MRSEC website <http://www.mrsec.org/>.

Applicants must possess a PhD degree or equivalent experience in materials science and engineering, condensed matter and materials physics, solid state and materials chemistry, biomaterials, or a closely related field of science or engineering. In addition, six or more years of

successful research, research administration, and/or managerial experience pertinent to the program are required.

Applicants must be familiar with a broad spectrum of the materials research community and have a demonstrated interest in interdisciplinary materials research. The appointees are expected to work with the materials community to broaden the diversity of participants in NSF programs, and to integrate research and education in the materials field. Applicants with accomplishments in the integration of research and education and with multidisciplinary experience and interests are desired.

The position will be filled on a one or two year Visiting Scientist appointment (VSEE), under the terms of the Intergovernmental Personnel Act (IPA), or Federal Temporary appointment, with a salary range of \$102,721 to \$160,078. Applicants should refer to vacancy number **E20090088-Rotator** and should follow the application instructions located on the NSF Home page at [www.nsf.gov/about/career\\_opps/](http://www.nsf.gov/about/career_opps/). Applications must be received by **August 31, 2009**.

*NSF is an Equal Opportunity Employer.*

**Positions Available**



**Materials Science  
and Engineering**

**The University of Texas at Dallas**

**DISTINGUISHED CHAIRS NANOELECTRONICS**



The Department of Materials Science and Engineering in the Erik Jonsson School of Engineering and Computer Science at the University of Texas at Dallas seeks outstanding applicants for Distinguished Chairs in Nanoelectronics (PCT090420) in the area of nanoelectronics and materials for electronic applications.

The successful applicants will have an outstanding recognized record of research in nanoelectronics and have the qualities necessary for academic leadership. These appointments offer scope for the appointees' individual and collaborative research talents and provide leadership in developing sponsored research programs in nanoelectronics. In addition, the successful applicants will be expected to teach undergraduate and graduate classes, and be involved in service to the university and profession. Applicants for this tenured position at the full Professor rank should have a PhD degree in materials science, electrical engineering, or related discipline. Joint appointments among relevant departments are envisioned.

The University is located in one of the most attractive suburbs of the Dallas metropolitan area. There are hundreds of high-tech companies within a few miles of the campus, including Texas Instruments, Nortel Networks, Alcatel-Lucent, Ericsson, Hewlett-Packard, Lockheed-

Martin, Raytheon, Samsung, Nokia, Fujitsu, MCI, EDS, Perot Systems, and Zyvex. Opportunities for joint university-industry research projects are excellent.

The Erik Jonsson School is experiencing very rapid growth as a part of a \$300 million program resulting in expanding programs, recruitment of outstanding faculty and PhD students, increased research funding, and establishing new programs. This endowed chair position is enabled in part by the new \$40M Texas Nanotechnology Research Superiority Initiative by the State of Texas.

Review of applicants will begin immediately and will continue until the positions are filled. The starting date is negotiable. Faculty positions are security sensitive and a background check will be performed for selected applicants. Indication of gender and ethnicity is requested as a part of the application for affirmative action statistical purposes only.

Curriculum vitae, a letter of interest and descriptions of educational background and teaching experience, and at least five letters of recommendation should be submitted via the online application system at <http://provost.utdallas.edu/facultyjobs/pct090420>.

*The University of Texas at Dallas is an Affirmative Action/Equal Opportunity Employer.*

**INL-MIT research positions  
at the International Iberian  
Nanotechnology Laboratory (INL)**

The International Iberian Nanotechnology Laboratory, a recently formed international research organization registered in the UN, is seeking strongly motivated Researchers to join its new facility in Braga, North of Portugal ([www.inl.int](http://www.inl.int)). INL central lab facilities are presently being built and will open in late 2009 (€100 Million investment for an expected research community of around 400 people at full operation).

Within the INL-MIT collaboration agreement ([www.inl.int](http://www.inl.int)), 4 researchers in the following research areas are sought:

- PZT based MEMS structures for energy harvesting.
- Graphene based nanodevices for biosensing applications.
- Nano templating of biomolecular structures.
- Ordered nanoscale structures for energy storage and sensing.

Candidates with outstanding CVs in these and related areas will be considered. The selected researchers are expected to start their contract at MIT and to move to INL during 2010.

INL will offer an exciting, and highly competitive research environment, including salaries in line with those offered by other international research organizations, and a comprehensive fringe benefit package, including a base salary complement dependent on research output. Researchers will be offered substantial starting funds (both for capital equipment and research personnel) to help them jump start their research activities.



INL facilities will open in late 2009, and are located in Braga (150,000 inhabitants, and a city with a high quality and attractive living environment), 30 min drive from Oporto Sa Carneiro Airport, 30 min drive from the North Atlantic coast, and about 45 min drive to the Galician border and the mountains of the Geres National Park.

Interested applicants should submit a cover letter, curriculum vitae, and a research statement/proposal to our recruitment website.

Deadline: September, 15th 2009.

More information on the INL research goals can be found at our website: [www.inl.int](http://www.inl.int)



**Positions Available**



**POSTDOCTORAL FELLOWSHIPS**

**School of Engineering and Applied Sciences  
Harvard University**

Applications are invited for a postdoctoral position at the School of Engineering and Applied Sciences, Harvard University. The project will be related to thin film semiconductors, characterization, and device physics with potential applications to energy conversion technologies. Prior hands-on experience in one or more areas such as thin film synthesis and electronic transport measurements in semiconductor thin films or nanostructures or photochemically active materials is required. The project will have a strong experimental focus and will encompass both materials science studies such as thin film synthesis of multi-component materials; physical characterization as well as electronic transport aspects.

We are seeking highly motivated candidates with an outstanding academic record and publications. The candidate should have a PhD degree in Physics, Applied Physics, Materials Science, Chemistry, Engineering, or related disciplines. Applicants should send their CV, list of publications, and contact information of three references to: Shriram Ramanathan at [shriram@seas.harvard.edu](mailto:shriram@seas.harvard.edu). Please include "PDF Application" in the subject line.

*Harvard is an Equal Opportunity/Affirmative Action Employer. We strongly welcome applications from qualified women and minority group members.*



**ROYAL INSTITUTE OF TECHNOLOGY**

*The Royal Institute of Technology  
has an opening for a*

**Professor in Solidification  
of Metals**

For more information visit  
[www.kth.se/aktuellt/tjanster](http://www.kth.se/aktuellt/tjanster)

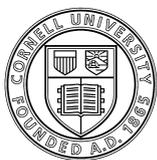
**DIRECTOR/PROFESSOR  
Cornell NanoScale Science Technology Facility**

Applications and nominations are invited for the position of Director, Cornell NanoScale Science and Technology Facility, (CNF) at Cornell University. The directorship is a dual appointment, half-time as the chief executive officer of the facility and half-time as a professor in one of the academic departments associated with the facility. Administrative and technical support for the director is provided by an Associate Director to whom the staff members report. A 5-year grant from the National Science Foundation provides approximately 50% of the current support for the facility with the balance coming from industry and other sources.

The Cornell NanoScale Science Technology Facility (CNF) is a national user facility that supports a broad range of nanoscale science and technology projects by providing state-of-the-art resources coupled with expert staff support. 2007 marked our 30th year in operation. Research at CNF encompasses physical sciences, engineering, and life sciences, and has a strong interdisciplinary emphasis. Over 700 users per year (50% from outside Cornell) use the fabrication, synthesis, computation, characterization, and integration resources of CNF to build structures, devices, and systems from atomic to complex length-scales.

Candidates should have an earned doctorate and an outstanding record of achievement in research and technical management. The new director must provide innovative leadership in research program initiatives that will keep the facility at the forefront of nanofabrication science and technology and supported from a broad funding base. The director will also teach and carry out research relevant to the facility in the department to which he or she is appointed.

Please send letters of application with complete curriculum vitae to CNF Search, 222 Day Hall, Cornell University, Ithaca, NY 14853.



**Cornell University**

*Cornell University is an Affirmative Action/  
Equal Opportunity Employer and Educator.*

**POSTDOCTORAL  
RESEARCH ASSOCIATES**

**Institute for Shock Physics  
Washington State University**

The Applied Sciences Laboratory of the Institute for Shock Physics at Washington State University has immediate openings for postdoctoral research associates in a multiscale simulation using a combination of classical and quantum mechanical calculations for predictive simulation of material properties. For more information and application procedures, please see <http://www.asl.wsu.edu/site/careers.html>.

*EEO/AA/ADA*

**Place Your Ad Today!**

Contact **Mary E. Kaufold**  
at 724-779-8312  
or [kaufold@mrs.org](mailto:kaufold@mrs.org)

Positions Available



**FACULTY POSITIONS**  
**Department of Materials Science**  
**and Engineering**  
**Yonsei University**

The Department of Materials Science and Engineering at Yonsei University is seeking applicants to fill faculty positions at all levels with a starting date of August 2009 or later. Candidates with experience in semiconductor materials and devices, energy-related materials, biomaterials, or structural materials are encouraged, but all areas of Materials Science and Engineering will also be considered. Minimum qualifications for this position include an earned Doctorate Degree in Materials Science, Chemistry, Physics, Chemical Engineering, or interdisciplinary subject; exceptional accomplishments in her/his field of excellence; and the ability to communicate/teach effectively in English at both the undergraduate and graduate level.

Yonsei University is the oldest private academic institution in Korea with over 3500 eminent faculty members conducting cutting-edge technical research across all academic disciplines. To lead the field of engineering excellence, Yonsei University is endowing its distinguished faculty members with highly competitive salary and benefits. Detailed information regarding our institution and this opening can be found online at <http://www.yonsei.ac.kr/eng/news/employment/index.asp>.

Qualified candidates must apply online and submit all necessary application materials and supporting documentation directly to the College of Engineering by **August 20, 2009** to the attention of:

Kyoung Sook Lim  
 #601 Engineering Hall 1  
 Yonsei University  
 262 Seongsanno  
 Seodaemun-gu 120-749  
 Seoul, Republic of Korea

Any additional questions should be directed to the chairman of the recruiting committee, Professor Heon-Jin Choi, via email at [hjc@yonsei.ac.kr](mailto:hjc@yonsei.ac.kr).

*Yonsei University is an Equal Opportunity employer. Yonsei University particularly welcomes applications from qualified women and under-represented minorities of foreign nationalities.*



Eidgenössische Technische Hochschule Zürich  
 Swiss Federal Institute of Technology Zurich

**Professor of Construction Materials**

ETH Zurich invites applications for a professorship in construction materials. The position involves the field of novel and existing cement-based construction materials. Focus is placed on the relation between cement, cement admixtures, additives and aggregates, as well as on the connection between microstructure, flow properties in the fresh, and creep properties in the final stage. The candidate will also be expected to deepen knowledge of the mechanics of cement-based materials and of the long-term durability of civil engineering structures. The post also involves the elaboration of fundamental materials science for the development and application of methods for the examination, maintenance and repair of engineering structures. Research experience in modern nano-, bio- and adaptive material behavior is welcome.

The teaching responsibilities of the Chair within the Department for Civil, Environmental and Geomatic Engineering include fundamental materials science with the aim of conveying an understanding of concrete in connection with the construction, use and maintenance of civil engineering structures, covering technical, economical and ecological aspects. The new professor will be expected to teach undergraduate level courses (German or English) and graduate level courses (English).

The candidate should hold a PhD in the field of engineering or material sciences, an excellent academic record as well as extensive experience in cement-based materials. He or she has to demonstrate an ability to carry out research in the field of cement-based materials and divulge results through teaching and practice, thanks to his or her knowledge and experience in fundamental materials science. The ability and readiness to work in an interdisciplinary environment as well as a pedagogical predisposition and pleasure in teaching are prerequisites.

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



**nanocomp** THERMOELECTRICS ENGINEER  
 TECHNOLOGIES, INC. Nanocomp Technologies, Inc.

Nanocomp Technologies is currently seeking a Bachelor's or Master's degree level candidate with experience in research and development of thermoelectric materials and energy conversion. The successful candidate will work in a laboratory setting, primarily engaged in material characterization, particularly of thermal and electrical properties, chemical treatment of materials, assembly of materials into a multistage device, and performance evaluations of the thermoelectric properties of these devices. US citizenship is an absolute must.

The company is located in Concord, NH, a pleasant community with access to the mountains, the Atlantic coastline, and Boston.

Interested candidates should respond with a cover letter, resume, and contact information for three references to:

Human Resources; Nanocomp Technologies, Inc.; 162 Pembroke Road; Concord, NH 03301  
[recruit@nanocomptech.com](mailto:recruit@nanocomptech.com)