PROFESSOR (Open Rank), Department of Bioengineering, College of Engineering, University of Illinois at Urbana-Champaign

The Department of Bioengineering at the University of Illinois at Urbana-Champaign (UIUC) seeks full-time senior and junior faculty for tenured or tenure-track positions, in the following areas:

**Translational Bioengineering** — in collaboration with new engineering-based Carle Illinois College of Medicine (medicine.illinois.edu), and the Healthcare Engineering Systems Center (healtheng.illinois.edu)
- Wearable and implantable devices that track physiological information for personalized medicine.
- Big data/machine-learning methods applied to task-based feature selection and medical decision-making that informs prevention, diagnosis, and treatment planning and assessments.
- Human-system modelers that describe patient health trajectories and treatment options.
- Advanced robotic techniques for diagnostic sensing, medical imaging and surgical interventions.

**Neuro-engineering** — in collaboration with Carle Foundation Hospital, the Beckman Institute for Advanced Science and Technology, and the Carl R. Woese Institute for Genomic Biology
- Highly collaborative engineer developing technologies for real-time, non-invasive measurements of brain processes and cognition. Strong technical skills are required but with knowledge and interest in application areas that are local strengths: plasticity, interventions, or modeling across all spatial scales.
- Highly computational biologist working on cutting-edge algorithms to analyze next-gen sequencing data, including data from cancer and phylogenomics projects to construct predictive statistical models; e.g., see Mayo-Illinois/NCSA project at mayoillinois.org/news/university-illinois-collaborates-mayo-clinic-revolutionize-genomic-data-analysis.html
- Bio-inspired and brain machine interface devices, from molecular to macro scale.
- Next-gen electrophysiological measurement: wireless, energy-efficient monitoring of electrical activity in the brain of humans from traumatic brain injury, epilepsy, or other pathology. Novel devices, materials, and signal processing for understanding the brain and its dysfunctions.
- Faculty with highly innovative approaches to modeling brain function.

**Computational Systems Biology and Genomics** — in collaboration with the Institute for Genomic Biology and the National Center for Supercomputing Applications
- Microbiome: Computational biologist developing dynamical models of microbial communities. Connections with new IGB theme at www.igb.illinois.edu/research-areas/microbiome-metabolic-engineering
- Big Data in genomics: computational biologist working on cutting-edge algorithms to analyze next-gen sequencing data, including data from cancer and phylogenomics projects to construct predictive statistical models; e.g., see Mayo-Illinois/NCSA project at www.igb.illinois.edu/research-areas/Big-Data-in-genomics
- Systems biology: computational biologist working on the analysis of functional genomics data or whole cell modeling. Possible cluster hire within the neuroscience area and connection to IGB (www.igb.illinois.edu) themes.

Minimum qualifications include an earned doctorate in Engineering, Computer Science, the Physical Sciences, or related fields; outstanding academic credentials; and the ability to teach effectively at both the graduate and undergraduate levels. Dual-degree candidates with an M.D. are encouraged to apply and have the opportunity for joint appointments within our network of partnering clinical institutions. Candidates also will have the unique opportunity for leadership roles in building on our newly established engineering-driven College of Medicine, the first of its kind. Senior-level appointments at the rank of Associate or Full Professor will be a priority and are available and encouraged for persons of international stature. Appointments at the Assistant Professor level will only be available for exceptional junior candidates. Rank and salary will be commensurate with qualifications. Start date is expected in the fall of 2017; however, it is negotiable.

Qualified senior candidates also may be considered for tenured full Professor positions as part of the Grainger Engineering Breakthroughs Initiative, which is backed by a $100 million gift from the Grainger Foundation. Over the next few years, more than 35 new endowed professorships and chairs will be established, which will provide incredible opportunities for world-renowned researchers. The two main research areas for this initiative are Bioengineering and Big Data. More information regarding the Grainger Initiative can be found at: graingerinitiative.engineering.illinois.edu.

**BioInspire: The University of Illinois at Urbana-Champaign is an internationally top-ranked research institution. Our interdisciplinary and collegial academic community encourages visionary leaders to establish new and innovative research programs that may involve our Beckman Institute for Advanced Science and Technology, the Carl R. Woese Institute for Genomic Biology, the National Center for Supercomputing Applications, the Micro and Nanotechnology Laboratory, or our Carver Biotechnology Center, among our many other research centers, clinical sites, and educational programs.**

To apply, please visit the website at my.bioen.illinois.edu/join. A cover letter with current contact information including email address should be provided, as well as your curriculum vitae, statements for research and teaching goals, and the names of three or more references. If interested in being considered for one of the aforementioned unique opportunities, the candidate should explicitly refer to “Grainger Initiative” in the cover letter and should include “Bioengineering,” or “Big Data” (whichever is applicable) as one of his/her preferred research areas when prompted during the online application process.

To ensure full consideration, applications must be received by January 15, 2017. Early applications are strongly encouraged, as interviews may take place during the application period, but a decision will not be made until after the closing date.

For further information call 217-300-4189, email dschloss@illinois.edu, or write to:
Bioengineering Search Committee
Bioengineering Department
University of Illinois at Urbana-Champaign
1270 DCL, MC-278
1304 West Springfield Ave., Urbana, IL 61801

The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer. Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, status as a protected veteran, or status as a qualified individual with a disability. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. (www.inclusiveillinois.illinois.edu). We have an active and successful dual-career partner placement program and a strong commitment to work-life balance and family-friendly programs for faculty and staff (provost.illinois.edu/worklife/index.html).