POSITION OPENING

Position Title: Postdoctoral Position in Robotics
Job Location: Cambridge, MA

February 2, 2016

The Senseable City Lab (SCL) and the Computer Science and Artificial Intelligence Lab’s (CSAIL) Distributed Robotics Group at the Massachusetts Institute of Technology (MIT) are looking for exceptional candidates to fill a postdoctoral position in underwater robotics.

The successful candidate will work on Underworlds, a multi-million-dollar funded research project to monitor the urban microbiome through sewage (see MIT press release: http://news.mit.edu/2015/real-time-urban-epidemiology-from-wastewater-1102 and project website: http://underworlds.mit.edu). This position is co-supervised by Professor Carlo Ratti, Director of SCL, and Professor Daniela Rus, Director of CSAIL.

Underworlds is a multi-departmental collaboration across MIT including SCL, CSAIL, the Alm Lab and Runstadler Lab in Biological Engineering, and the Polz Lab and Eltahir Research Group in Civil and Environmental Engineering.

JOB DESCRIPTION:
As part of the Underworlds platform, we are designing and deploying a distributed network of automated sewage sampling devices. The successful candidate will lead the development of these devices to discretely collect sewage, preprocess the samples in situ to prepare them for DNA extraction and sequencing, and work to onboard various biochemical and environmental sensing capabilities. A central communication platform will also be developed to manage and control the network of samplers.

REQUIREMENTS:
• Ph.D. in robotics, computer science, electrical engineering, mechanical engineering, or a related field;
• Ability to work in a multidisciplinary environment is a must, as are strong problem solving skills and a high level of creativity;
• Experience designing and assembling electronic components for signal processing and general-purpose computation;
• Experience developing telecommunications platforms and distributed robotics networks;
• Experience in machine learning, statistics a plus;
• Experience with computer systems security a plus;
• Experience with various fabrication techniques desired;
• Advanced verbal and written communication skills in English are expected;
• A motivation letter stating the applicant’s interest in working on Underworlds, including: research experience, design and/or fabrication experience, key relevant technical competencies, and dates of availability;
• CV, which should include: relevant projects and publications (up to 5);
• Complete publications list, full text of key relevant publications attached;
• The applicant should be ready to provide letters of recommendation or the contacts of academic referees.

International scholars are welcome to apply.

Please send applications to underworlds-info@mit.edu.
For more information about the post, please contact Newsha Ghaeli at underworlds-info@mit.edu.