

Two Research/Software Development Positions (Technical Staff or PDF) Available Immediately at MEMF Lab, University of Windsor

MEMF Lab develops advanced software to integrate geographic information technology, terrain and environmental models, and environmental sensor networks into spatial decision support systems. We are developing these systems in the context of real-time, adaptive hydrological monitoring and watershed management, as well as real-time hazard monitoring (e.g. slope failures and landslides). We have several inter-related collaborative research projects funded by NSERC, the GEOIDE NCE, and the OCE Centre for Earth and Environmental Technology.

We must fill two positions as soon as possible, developing software for our research projects. Each position can be structured as either **technical staff** or **post-doctoral fellow** to suit the candidate's background, experience, and career needs. The positions are for 6 to 12 months (negotiable), and renewable subject to continued funding. The positions focus on two key areas:

- **Design, Configuration and Communication Tools for an Integrated Environmental Monitoring System**
- **A Rule-Based Trigger System for Adaptive Watershed Monitoring**

The ideal candidate would have:

- Bachelor's, Masters' or Doctoral degree in geomatics, computer science, software/computer engineering or similar discipline
- Strong skills in object-oriented software design and development: interfaces, abstracted hierarchies, and run-time configuration; multi-tier, scalable architecture concepts; and Model-View-Controller (MVC), or engine/skin, application design
- Strong experience with C++, and preferably Microsoft .NET libraries
- Experience with 'agile' and iterative software development methodologies
- Familiarity with the Open Geospatial Consortium (OGC) Sensor Web Enablement (SWE) standards and services, and other open-source GIS software and standards
- Familiarity with software development infrastructure tools, e.g. SVN, Javadoc / doxygen, Junit / CxxTest, Bugzilla

Candidates interested in the **Design, Configuration and Communication Tools for an Integrated Environmental Monitoring System** area should also have experience in:

- Concurrent systems and multi-threaded programming
- Serial (COMM port) and TCP/IP communications programming

Candidates interested in the **Rule-Based Trigger System for Adaptive Watershed Monitoring** area should also have experience in:

- Expert system/decision tree concepts
- Triggers, event processing, and rule-based programming methods

Compensation and benefits include: competitive salary; travel for conferences and meetings; flexible work environment; exclusive access to geospatial and sensor network hardware and software, and an in-lab reference library; interaction with collaborators in computer science, hydrology, and geotechnical engineering, and across academic, commercial, and government sectors; and opportunities for publication in journals and periodicals.

Please send an application to **Dr. Phil Graniero, graniero@uwindsor.ca**. The application package should include: a cover letter; a resume or CV; a description of your role and activities in previous software development projects; preference for the two positions; and the names and contact information for two referees. Applications will be evaluated as they arrive, and will continue until the posts are filled. For more information about our research projects or the open positions, please feel free to contact Dr. Graniero by email or by phone (519)253-3000x2485. More information on MEMF Lab can be found at <http://matrix.memf.uwindsor.ca>.