



RESEARCHER
LINKS



Workshop on

GEOLOGICAL DISASTER MONITORING BASED ON SENSOR NETWORKS

Harbin Institute of Technology, Heilongjiang Province, China

in partnership with

University of Strathclyde, Glasgow, Scotland, UK
Tianjin Normal University, Tianjin, China

14-17 July 2017

PREAMBLE

In recent years, geological disasters, such as earthquakes, landslides and others, have caused significant damage to life and property. Victims are often trapped in collapsed buildings. Thus the development and understanding of advanced techniques for disaster relief are of immense current interest. Requirements for enhancement of early warning and emergency response systems to geological disasters are a compelling need. To ensure speedy recovery of people and the protection of the national infrastructure threatened by geological disasters, real time detection and data collection is a necessary prerequisite.

The construction of geological condition monitoring sensor networks in areas prone to earthquakes, volcanoes, and landslides would provide information on geographical structural state changes, through the real time online analysis of large scale sensor networks data. Such Networks would also provide an early warning of major geological disasters, reduce casualties and property losses.

OBJECTIVE

A three-day Workshop will be held in the Harbin Institute of Technology, Harbin, China, aimed at early career researchers from the UK and China, with the objective of increasing research capacity, knowledge transfer from cognate areas, exploration and identification of research opportunities, and building international teams with the aim of future collaboration for research in this area of international relevance - Disaster Recovery and Mitigation.

Keynote lectures will be given by leading authorities in the field from the UK and China. All attendees will be expected to make a presentation on their research at the Workshop.

APPLICATIONS

Applications are invited from early career researchers (post-doctoral and above) working in cognate areas, to attend the Workshop. Please complete the attached application form, and include the names of two Referees.

Economy class airfares, visa charges, and local travel and living expenses at the Workshop will be covered for successful candidates.

Applications will be assessed against open criteria of relevance, research record, the potential for collaborative and innovative research, and the quality of references.

Applications should be submitted no later than **Friday 14 April 2017** to:

Sheila Forbes, Workshop Administrator, University of Strathclyde (sheila.forbes@strath.ac.uk)

WORKSHOP OBJECTIVE

The Workshop will provide a grounding in the key components of remote, distributed monitoring environment, exploiting wireless sensor technology, and related analytical/computational tools. The approach will offer concepts novel to the Chinese environment, with presentations on:

- Sensor Technology
- Wireless Communication Systems
- Signal Transmission Technology and Processing
- Big Data Analytics.

During the presentations, challenging problems and topics for future research will be highlighted, offering early stage researchers the opportunity to progress in the field, either individually or jointly with cross-country partners.

KEY OUTCOMES FROM THE WORKSHOP

- Enhancing the knowledge base of participants, and knowledge transfer to home Institutions
- Establishing a network with in-country and partner country participants
- Identification of future directions for research, and recognition of opportunities for collaboration
- Setting of collaborative teams between participants, with possible preparation of future research proposals
- Establishment of multi-institutional consortia with critical mass to address
- Significant research problems of current and future interest
- Sharing of Workshop findings with stakeholders and Government Agencies
- Long-term opportunities of working in partner country.

KEYNOTE PRESENTERS

- Professor Tariq S Durrani University of Strathclyde
- Professor Lajos Hanzo University of Southampton
- Professor Amir Hussain University of Stirling

- Professor Qilian LIANG Tianjin Normal University and University of Texas at Arlington
- Professor Yiming Pi University of Electronics Science and Technology, Cheng
- Professor WANG Wei Tianjin Normal University

CONFERENCE OPPORTUNITY

The Workshop is organised back-to-back with the Sixth International Conference on Communications, Signal Processing and Systems (CSPS) in Harbin - <https://h5.wps.cn/p/6aed5296.html>, and there may be an opportunity to attend the conference and present a poster.

Tariq S Durrani (durrani@strath.ac.uk)
WANG Wei (weiwangvip@163.com)
Workshop Coordinators
February 2017