Call for papers for special issues

“Probabilistic and Soft Computing Methods for Engineering Geology”

Probabilistic and soft computing methods such as regressions, geostatistics, artificial neural network, and reliability analysis, are increasingly adopted in the fields of engineering geology. Such methods are often most useful in the following situations: (1) the underlying phenomenon is very difficult to model explicitly; (2) the available information is not sufficient for a detailed mechanics-based analysis; (3) the uncertainties involved in a mechanics-based model need to be quantitatively assessed, and (4) data are only available at sparsely distributed points and information interpolation is needed. Successful application examples of such methods are many, which include but are not limited to regional landslide susceptibility mapping, soil liquefaction hazard zonation, probabilistic assessments of various geohazards, and reliability analysis of various geotechnical and geological systems.

In the past decades, extensive original and innovative studies have been carried out in the international community on solving engineering geology problems with probabilistic and soft computing methods, and substantial new theories, insights, experiences, and data have been attained. This special issue intends to provide researchers worldwide a forum to report the current knowledge and recent advances in applied probabilistic and soft computing methods for engineering geology applications. It is hoped that this special issue will provide the profession with a timely survey on the current state-of-art of probabilistic and soft computing methods in engineering, how such methods can benefit engineering geology research and practice, the implementation details of such methods, and their potential for further development, thus further facilitating and promoting the use of such methods in engineering geology.

Papers on topics related to new development and applications of the probabilistic and soft computing methods for engineering geology problems, listed below, are especially welcome.

- State of the art review of probabilistic and soft computing methods for engineering geology applications;
- Challenges in applying probabilistic and soft computing methods in engineering geology
- New probabilistic and soft computing methods for engineering geology;
- Innovative implementation details, tools, and tutorial on probabilistic and soft computing methods for engineering geology;
- Application examples and case studies of international interest.
Important dates:

December 1, 2014: Letter of Intent (by email to dianqing@whu.edu.cn)
December 31, 2014: Abstracts due (by email to dianqing@whu.edu.cn)
January 31, 2015: Notification of abstract decision
February 1, 2015: Online submission open (allowing submission of full paper)
June 1, 2015: Deadline for full paper submission
March 1, 2016: Target date for completion of the editorial process
2016: The special issue appears in print.

Special issue guest editors:

Dian-Qing Li, Professor, Wuhan University
Jie Zhang, Associate Professor, Tongji University
Kok-Kwang Phoon, Distinguished Professor, National University of Singapore
Candan Gokceoglu, Professor, Hacettepe University, Beytepe-Ankara, Turkey

Inquiry:

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