

Preface

The 1st International Workshop on "Localisation of Soils" was held in Karlsruhe, Germany on February 22-25, 1988. It was followed by the 2nd International Workshop in Gdansk, Poland on September 25-30, 1989. The first two events emphasised fundamental aspects of bifurcation theory applied to Soil Mechanics, and they were sponsored by the German and Polish Research Councils. The 3rd International Workshop on "Localisation and Bifurcation" was held in Aussois, France on September 6-9, 1993, and the topics were extended to accommodate Rock Mechanics; generous support was provided by the French Research Council. The 4th and 5th Workshops held in Gifu, Japan and Perth, Australia. The University of Minnesota was selected as the place for the 6th International Workshop on "Bifurcations and Instabilities in Geomechanics". The event was hosted at the St. John's University in Collegeville, Minnesota U.S.A. on June 2 - 5, 2002 and was supported by a grant from the NSF and has generously received Corporate support (BP Amoco-Houston, Schlumberger-Houston-Cambridge, Shell-Houston), MTS-Minneapolis, Itasca-Minneapolis).

The objective of all these workshops has been to bring together international researchers and practitioners dealing with bifurcations and instabilities in Geomechanics. The focus was to collect and debate the developments and applications that have taken place since the first workshop in 1988. The topics covered included modelling of bifurcation, structural failure of geomaterials and geostructures, advanced analytical, numerical and experimental techniques, application and development of generalised continuum models etc. The scope of these workshops included analytical solutions, numerical methods, experimental techniques, and case histories. Besides the presentation of fundamental research findings, applications in geotechnical, petroleum, mining, and bulk materials engineering were emphasised.

These workshops have provided a forum for researchers and practitioners to present their findings, interact formally and informally on a person-to-person basis, and exchange ideas on problems and solutions with colleagues from other countries. Exchange of ideas is an important ingredient in the professional growth and development of engineers. Our workshop has offered excellent opportunities for such growth.

The papers presented in this special issue and those published in a special Volume entitled Bifurcations, Instabilities and Degradation in Geomechanics (George Exadaktylos and Ioannis Vardoulakis, editors) Springer Verlag (2006) give the picture of the state of the art in the area of

contemporary Geomechanics. At this point, the Guest Editors of this special Issue of the IJNAMG and Organizers of the 7th IW BIDG would like to acknowledge the support of the following contributors and sponsors: Technical University of Crete (TUC), National Technical University of Athens (NTUA), EDRASIS S.A., Hellenic Society for Soil Mechanics and Geotechnical Engineering, DIGA Research Training Network, A.L.E.R.T. Geomaterials, TC34 of ISSMGE, and the Technical Chamber of Greece.

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Organization of the 7th International Workshop

At the board meeting in St. John's University it was decided that the next event will be hosted jointly by the National Technical University of Athens and the Technical University of Crete, at the City of Chania in the Northwest part of the island of Crete, in Greece. The event is entitled as the "7th International Workshop on "Bifurcations, Instabilities and Degradation in Geomechanics".

For the organization of the 7th IWBIDG in Chania the following committees have been formed:

- Local Organizing Committee
- International Advisory Board
- International Scientific Committee

A number of topics were attacked in this Workshop such as:

1. Advanced Experimental Techniques
2. Micromechanical approaches
3. Constitutive modeling
4. Mathematical analyses
5. Numerical analyses
6. Failure mechanics, damage mechanics and fracture mechanics
7. Multiphase flow and granular flow aspects

Particular attention is also given to be plenty of time for presentations and fruitful discussions among the participants.

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