## Prologue

CBGA 2010 is the XIX Congress of the Carpathian –Balkan Geological Association, one of the longerlasting series of congresses in Europe. The first CBGA Congress was organized in Poland in 1925 and the penultimate one in Belgrade in 2006.

CBGA 2010, which is a follow-up of previous successful congresses, aims at bringing together academic scientists, institute and industry researchers and scholar students to share their experiences and research results about Earth and Environmental Sciences aspects, discuss the practical challenges encountered, highlight the necessity and the priorities of the geological science, make proposals, and seek for application of policies. It is co-organized by the School of Geology, Aristotle University of Thessaloniki, Greece, the Geological Society of Greece, and the Institute of Geology and Mineral Exploration, Greece.

Earth operates as a constantly changing complex, dynamic system which, however, has not yet been fully understood. The Earth system comprises a lot of interdependent components that interact in complex ways. Planet Earth is changing in all spatial and temporal scales and although investigated in many respects and a huge amount of knowledge, both basic and applied, has been accumulated much more has to be done. The understanding of our Planet system and its reaction to natural and anthropogenic changes must be of predominance concern. Water shortage, environment protection, mineral resources, climate changes, natural hazards, and the Earth's origin and evolution are some of the priorities. Geoscientists have produced enormous amount of knowledge in a great range of topics. However, this knowledge in many cases remains unexploited. We have not found the way to inform or better to convince the politicians and the decision makers for the necessity of using this knowledge. The geo-knowledge we possess must be distributed and used for the benefit of the present and the next generations: for a safer, healthier and wealthier place to live. The XIX CBGA Congress covers a vast spectrum of topics in Earth and Environmental Sciences including Geophysics and Meteorology/Climatology as well as some related disciplines. The quality and quantity of the participants and their works no doubt will contribute towards this direction.

The registration fees have no doubt been the blood donor of the Congress. The sponsors, however, contributed greatly to the success of it and we are grateful to them. Although the worldwide economic crisis has affected the organisation of the congress from the financial point of view, the Organising Committee managed to offer a large number of grants particularly to young scientists giving them the opportunity to attend CBGA 2010 and benefit from it, and facilitated, in some extend, financially the CBGA Council and Board members as well as the invited speakers.

We wish to warmly thank the Conveners of the Special Sessions and all colleagues who offered their valuable time to review the papers included in the Proceeding volumes. We would also like to thank the invited speakers, leading scientists in their field (Gérard Stampfli, Ioan Seghedi and Maria Economou-Eliopoulos), who kindly accepted our invitation to give a plenary talk for the participants.

The Organising Committee is pleased to acknowledge the contribution of all participants in helping to present to the geological community this excellent geological event and to produce the congress proceedings. In total, 130 full papers have been presented in CBGA 2010, of which 81 in oral and 49 in poster mode. Their abstracts, together with 410 stand-alone abstracts that have also been submitted, have been published in the Abstracts volume of CBGA 2010 (Geologica Balcanica). More than 1,400 authors coming from tens of countries all over the world have contributed in making this congress an event of high scientific value.

The President of the Organizing Committee wish to express his gratitude and his sincere thanks to all members of the Organizing Committee, the team of post-graduate and graduate students of the School of Geology of the Aristotle University of Thessaloniki, who worked hard and did their best for the excellent organization of the Congress.

Prof. Georgios Christofides President of the Organizing Committee of the XIX CBGA Congress