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FOREWORD

by

Domenico Calcaterra
President of AIGA, Associazione Italiana di Geologia Applicata e Ambientale

Mirko Francioni
Congress Co-Chairperson

Roberta Bonì
Congress Co-Chairperson

Stefano Morelli
Congress Co-Chairperson

Thirty-two years ago, the Italian Association of Engineering and Environmental Geology (AIGA − Associazione Italiana di Geologia Applicata e Ambientale) organised the first National Congress of Young Researchers in Engineering Geology (Congresso Nazionale dei Giovani Ricercatori in Geologia Applicata). The congress took place in Gargnano, a small, charming town on the shores of Lake Garda (Lombardy region, Italy). Since then, the congress has become an important annual gathering, during which both young and senior researchers share their ideas and projects.

For the first time in the history of AIGA, this year's congress will take place in the Marche region (Italy), namely in the historical centre of Urbino, a UNESCO World Heritage Site. The decision to hold the congress there, in collaboration with the University of Urbino Carlo Bo, was made in the light of the tragic events that this region experienced in September 2022 when, after a period of exceptional rainfall, several areas within the Misa, Cesano, and Metauro basins suffered landslides and floods, causing 13 fatalities among the population. Such a catastrophic event showed once again the vulnerability of our country and the need to improve geo-hydrological risk mitigation strategies considering, in particular, the increasing impact of climate change.

The abstracts, papers, and contributions submitted to the congress clearly demonstrate that the advent of new technologies for engineering−geological surveys, monitoring, and analyses has led to step-change increases in the quality of data available for the study of natural hazards. These enhancements should be the link connecting the research community, practitioners, and government/public authorities, and they should be incorporated in future geo-hydrological risk mitigation strategies. Furthermore, the exceptional opportunities that the fundings from the National Recovery and Resilience Plan (NRRP) have given to the engineering geology and geoscience communities (and the responsibilities that they have assigned to them) make this meeting even more challenging, as it will enable participants to share and discuss the current state of play and the achievements of NRRP projects. Hence, this congress will be a unique opportunity to bring together young and senior scientific communities and national/regional authorities in charge of managing natural risk assessments, and to discuss research innovations and potential solutions, in the hope that events like the September 2022 Marche flooding can be avoided in the future.

This Special Issue of the Italian Journal of Engineering Geology and Environment includes some of the papers submitted to the 12th National Congress of Young Researchers in Engineering Geology. In particular, it is dedicated to the memory of our colleague and friend Roberto W Romeo, who passed away at an early age in 2017. As a professor of engineering geology, he left an outstanding scientific and educational legacy at the University of Urbino. The young professors taking up his baton have committed to pursuing his teachings both in developing research themes and in educating new generations of engineering geologists.

We would like to express our deepest gratitude to all those who contributed to the organisation of this event, and in particular to the authors of abstracts and papers, to the referees who carefully reviewed them, and to Dr Tania Ruspandini (and the IJEGE team) who gave proof of unlimited patience and worked incredibly hard to complete this Special Issue before the start of the congress. We also thank all the authorities attending the congress and all the members of AIGA executive board, who helped the team of the University of Urbino Carlo Bo with their valuable suggestions and continuing support. THANKS TO ALL OF YOU.