

44th Annual Congress “Groundwater Heritage and Sustainability”

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Dear colleagues,



the Croatian National Chapter of the International Association of Hydrogeologists hosted the 44th Annual Congress “Groundwater Heritage and Sustainability” in the Dubrovnik Palace hotel, Dubrovnik, Croatia, from 25th to 29th September 2017. Scientific part of the congress was held in 8 topics and 36 sessions. Main topics covered: (1) Groundwater heritage with the focus on groundwater reserves as well as groundwater quality by passing benefits from past to current, and from current to future generations; (2) Sustainable management of groundwater resources necessary to control the risks and pressures on groundwater caused by existing and increasing anthropogenic pressures, as well as present climate change and variations; (3) Groundwater modelling highlighting the research of intergranular, karst and hard rock systems and presenting various modelling approaches, both analytical and numerical, for solving groundwater flow and contaminant transport problems in groundwater resources management and protection; (4) New approaches and technologies in groundwater monitoring used in monitoring and characterization of quality and quantity status of groundwater, as well as in biological monitoring of underground aquatic ecosystems; (5) Groundwater in karst systems focusing on specifics of groundwater flow in karst environment, bifurcations, trifurcations, accumulating groundwater in karst environments, impact of karst groundwater on rock characteristics,

speleogenesis in karst hydrogeology, significant hydrogeological phenomena in Dinaric karst and significant hydrogeological phenomena worldwide; (6) Coastal and island hydrogeology comprising specific problems of groundwater in coastal and island areas under influence of seawater penetration, as well as future climate and sea level changes; (7) Groundwater and dependent ecosystems considering underground ecosystems and terrestrial groundwater dependent ecosystems; and (8) Mineral and geothermal waters presenting the practice of using mineral and geothermal waters for treatment and curing of diseases as well as heating.

This issue of *Geologia Croatica* Journal dedicated to the 44th annual congress of the IAH presents 7 papers which elaborate on 4 of the topics covered at the congress. Papers present achievements in sustainable management of groundwater resources focusing on transdisciplinary and participatory approaches in groundwater research and management, regulatory framework of groundwater management and groundwater quality and natural environmental tracers. Further, papers present achievements in groundwater flow and transport modelling as well as monitoring of groundwater quality and contamination.

We wish to express our gratitude to authors and reviewers and we hope that presented papers will be useful not only to hydrogeologist but also to other professionals as well.

Kristijan Posavec Issue Editor
Tamara Marković, Issue Editor
Lidija Galović, Editor-in-Chief