

Characterization and Engineering of Karst Aquifers



Provisional program of “A week with Karst” in “International Year of Caves and Karst”,
1 – 7 June 2021

CEKA 2021 – Special thematic session – Online conference “Karst: From Top to Bottom”

| Day | Time (h) | Topic/Activity | Lecturer |
|--------------------------------------|------------------|--|-----------------------|
| Day 1¹ (1 June) | 9–9.30AM | Opening ceremony | |
| | 9.30 – 10.45 AM | Introductory note, program; Historical development of karstology and karst hydrogeology; Importance of karst and karst distribution worldwide; Geo-heritage sites; Dinaric karst | Z. Stevanović |
| | 11 AM – 12.15 | Carbonate and non-carbonate rocks: mineralogy, depositional environments, classifications | D. Milovanović |
| | 12.15-1 PM | Chemical factors of karstification; Role of tectonics | D. Milovanović |
| | 2–2.45 PM | Porosity and permeability of karstic rocks; Karstification process and its features: Surface and subsurface karst landforms | Z. Stevanović |
| | 3 – 4 PM | Groundwater circulation in karst: recharge, flow types and directions, discharge | Z. Stevanović |
| Day 2 (2 June) | 9 – 10.15 AM | Methods in karst hydrogeology – an overview; geology, remote sensing, geophysics, water points inventory, groundwater tapping, hydrogeological properties and field tests | Z. Stevanović |
| | 10.15 – 11.30 AM | Methods in karst hydrogeology – climate, hydrology, springs hydrograph analysis and stochastic models | V. Ristić Vakanjac |
| | 11.45 AM – 1 PM | Methods in karst hydrogeology – geomorphology, speleology, speleo diving, exploratory drilling, hydrogeology maps, GIS modeling, database | S. Milanović |
| | 2-2.45 PM | Problems related to construction of dams, reservoirs and other structures in karst | P. Milanović |
| | 3–4 PM | Investigation, design, corrective measures in dams functioning – global experience | P. Milanović |
| Day 3 (3 June) | 9-10.15 AM | Specific research methods to identify and prevent leakage from reservoirs in karst | S. Milanović |
| | 10.15- 11.45 AM | Water resources cycle in karst; Surface-groundwater interaction; Feasibility studies and engineering design; Environmental impact assessment | O. Bonacci |
| | 12-1 PM | Transboundary aquifers: problems, solutions and experiences | N. Kukurić |
| | 2-4 PM | <i>DVD movies “Karst” and “Karst of Montenegro” “Trebišnjica- the largest sinking river of Europe”. “Protecting the karst: Forgotten species”</i> | |

¹ Time is CET (Central European Time, Paris, Budapest)

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| Day 4 (4 June) | 9-10.30 AM | Characterization of karst aquifers; Groundwater budget; Specific regime of karstic groundwater (quantity, quality); Safe yield; Aquifer control and sustainability | Z. Stevanović |
| | 10.30 – 11.30 AM | Karst aquifer vulnerability – assessment and visualization; Sanitary protection zones and measures | V. Živanović |
| | 11.45 - 1 PM | Quality dynamics at karst springs. A challenge for drinking water supplies. Isotopic methods in karst, GW ageing | Lj. Vasić |
| | 2 – 3.15 PM | Modeling of karst aquifers – conceptualization for numeric models, software, EPM, CFP, case studies | N. Krešić |
| | 3.30 – 4.30 | Stochastic modeling of karst hydrogeological systems and water resources assessment: Challenges and solutions | I. Jemcov |
| Day 5 (5 June) | 10 AM - 5 PM | <i>Special Session - Lecturing by Distinguished Guests</i> <i>12 Invited Lectures - members of the Karst Commission and/or former CEKA course lecturers provide lectures on various topics (30' each)</i> | Augusto Auler, Jianhua Cao, Francesco Fiorillo, Derek Ford, Nico Goldscheider, Chris Groves, John Gunn, Hervé Jourde, Attila Kovács, Peter Malik, Bartolomé Navarro, Abe Springer |
| Day 6-7 (6 -7 June) | 9 AM - 5 PM | Online Multidisciplinary Conference for young karst researchers and professionals “Karst: From Top to Bottom” <i>(Details and topics posted at web site http://www.karst.edu.rs/en/index.html).</i> <i>Attendance: free of charge;</i> <i>Abstract: 1 page, to be published in the Books of Abstracts;</i> <i>Time for presentation 15 minutes; Authors of high-quality presentations would be invited to prepare paper for publishing in SI Journal “Carbonates and Evaporites” or some of Serbian geological journals;</i> <i>Conference is especially devoted to younger and talented karst researchers, preferably, but not limited for age under 40.</i> | Call for Abstracts – Open from 1 February; Deadline for abstract submission – 30 April; Abstracts acceptance – 15 May |
| | | Closing session, concluding remarks, issuing of certificates | Z. Stevanović, S. Milanović |

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Note: In case of improved health conditions and removal of travel restrictions the 3-day field trip starting from 9 June, will be organized to the Montenegro karst (Durmitor and Skadar Lake basin) with rafting and boating, and visit of remarkable karst sites.

Web site of CEKA 2021 and Karst Conference: <http://www.karst.edu.rs/en/index.html>