

“Hydrology” author R. Žugaj

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Book review



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The second edition of the book “Hydrology“ was printed in 2015 (in Croatian) by author Ranko Žugaj, Ph. D., MSc. Civ. Eng., Full Professor of the Faculty of Mining, Geology and Petroleum Engineering of the University of Zagreb, Department of Geology and Geological Engineering. The publisher is the Faculty of Mining, Geology and Petroleum Engineering (RGNF) of the University of Zagreb. The circulation was 500 copies. The Senate of the University of Zagreb made a decision on the 19th of November, 2014 that the book is also a university textbook (memo class: 032-01/14-01/35, registry no.: 380-061/117-14-2), i.e. *Manualia Universitatis Studiorum Zagradiensis* (books of the University of Zagreb).

The book’s format (see **Figure 1**) format is B5 (170 x 240 mm), including 538 pages with a prologue to the first edition, a prologue to the second edition, the main text with 5 chapters, English and German names and an interpretation of the basic hydrological terms, references, an index of names and an index of terms. The chapter titles are: 1. Study area and development of hydrology, 2. Basics of Fluid Mechanics; 3. Basics of Meteorology; 4. Groundwater; 5. Hydrology of surface waters. The book includes 272 figures, 68 tables and 600 equations.

A CIP record is available in the computer catalogue of the National and University in Zagreb under no. 000912846, and the book’s ISBN is 978-953-6923-32-8. The reviewers were Full Professors Željko Andreić, Ph. D., MSc. Phys. and Andrea Bačani, Ph. D., MSc. Geol. at the Faculty of Mining, Geology and Petroleum Engineering of the University of Zagreb and Full Professor Nevenka Ožanić, Ph. D., MSc. Civ. Eng. at the Faculty of Civil Engineering of the University of Rijeka. The book was published by Denon Ltd. Zagreb.

The book is a valuable university textbook, created as a substantial expansion of the first edition of “Hydrology” in 2000, using years of the author’s experience in teaching the course Hydrology 1 and 2 at the Department of Geology and Geological Engineering at the Faculty of Mining, Geology and Petroleum Engineering, but also using years of experience of making expert analyses and technical reports. This university textbook will help students and engineers gain a clearer understanding of the basic principles of hydrology and learn approaches to solving engineering problems. In the first chapter, the author has clearly and concisely explained the field of study of hydrology, its historical development in the world and Croatia, and its tasks and application. In the second, third and fourth chapters, the basics of fluid mechanics, meteorology and groundwater are given, which are closely related to hydrology. In the central fifth chapter, which is also the most extensive, the author deals with surface water hydrology. All essential phenomena and concepts are explained and appropriate practical examples are given. The sixth chapter has a dictionary and an interpretation of English and German basic hydrological terms. The book is available in the Faculty’s library for loan or purchase, where it can also be ordered at special rates for students and others.

About author:

Ranko Žugaj is a retired Professor of the Faculty of Mining, Geology and Petroleum Engineering of the University of Zagreb, Department of Geology and Geological Engineering. He holds collegiums Hydrology 1 and 2 for Faculty of Mining, Geology and Petroleum Engineering students and Faculty of Science students. He is the author of the monography “The regional hydrological analysis in the Croatian Karst” (1995) with 139 pages and the first edition of university textbook “Hydrology” (in Croatian, 2000) with 407 pages. His bibliography is available at: <http://bib.irb.hr/lista-radova?autor=178432>.