# Demetris Koutsoyiannis – Short curriculum vitae

# **Professional profile**

Demetris Koutsoyiannis is professor emeritus for *Hydrology and Analysis of Hydrosystems* in the *National Technical University of Athens*. He has served as Dean of the *School of Civil Engineering*, Head of the *Department of Water Resources and Environmental Engineering*, and Head of the *Laboratory of Hydrology and Water Resources Development*. He was Editor of *Hydrological Sciences Journal* for 12 years (2006-18), and member of the editorial boards of *Hydrology and Earth System Sciences*, *Journal of Hydrology, Water Resources Research*, *Hydrology* and *Sci*. He has been awarded the International Hydrology Prize – Dooge medal (2014) by the International Association of Hydrological Sciences (IAHS), UNESCO and World Meteorological Organization (WMO), and the Henry Darcy Medal (2009) by



the <u>European Geosciences Union (EGU)</u>. His distinctions include the <u>Lorenz Lecture</u> of the <u>American Geophysical Union (AGU)</u> (San Francisco, USA, 2014) and the <u>Union Plenary Lecture</u> of the <u>International Union of Geodesy and Geophysics (IUGG)</u> (Melbourne, Australia, 2011). He has served as professor of *Hydraulics* at the Hellenic Army's Postgraduate School of Technical Education of Officers Engineers (Athens, 2007-10). He has been visiting academic/professor at the Imperial College (London, 1999-2000), Hydrologic Research Center (San Diego, 2005), Georgia Institute of Technology (Atlanta, 2005-06), University of Bologna (2006 & 2019) and Sapienza University of Rome (2008 & 2019).

#### Personal data

Birth info Village of Mesounta, Province of Arta, Greece, 27 April 1955

Nationality Greek

Professional Certification Civil Engineer

Employment Department of Water Resources and Environmental Engineering, School of Civil

Engineering, National Technical University of Athens (NTUA)

Contact info

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# **Education and degrees conferred**

1983-88 Doctoral thesis in the School of Civil Engineering, NTUA. (Doctor Engineer degree in 1988; title of thesis: *A disaggregation model of point rainfall*; advisor Th. Xanthopoulos).

1973-78 Undergraduate studies in the School of Civil Engineering, NTUA. (Diploma degree in 1978; top graduate of 1978; state scholarship during 1973-78; three university and state awards for high achievements).

## **Employment Record**

# **Academic employment**

- 2008-22 Professor in *Hydrology and Analysis of Hydrosystems*, Department of Water Resources and Environmental Engineering, School of Civil Engineering, NTUA.
- 2007-10 Professor of *Hydraulics*, The Hellenic Army's Postgraduate School of Technical Education of Officers Engineers.

Associate Professor in Analysis and modelling of hydrological processes and hydrosystems,
 Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering,
 NTUA.
 Assistant Professor in Engineering Hydrology: Information management and stochastic modelling,
 Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering.
 Lecturer, Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil
 Engineering, NTUA.
 Research Assistant, Department of Water Resources, Hydraulic and Maritime Engineering, School

## **Engineering employment**

- 1986-2014 Consulting Engineer in hydrologic engineering, hydraulic works and water resources engineering and management.
- 1982-85 Faculty member, BIOMETER Ltd (consulting company for wastewater treatment).
- 1981-83 Faculty member, METER Ltd (consulting company for hydraulic, structural and surveying engineering).
- 1978-85 Faculty member, Polytechnike Co. (consulting company for private engineering constructions, also co-operating with other Greek and international companies in hydraulic, structural and surveying engineering).

## **Participative employment**

- 2016-21 Head of the Laboratory of Hydrology and Water Resources Development
- 2014-18 Dean of the School of Civil Engineering of the NTUA.
- 2014-18 Senate member, NTUA (also, member in 2004-05 and associate member in 1993-94, 2002-03).
- 2010-12 Head of the Department of Water Resources and Environmental Engineering of the NTUA.
- 2009-10 Member of the Board of the Association of Academic Staff of the NTUA.
- 2007-18 Editor, Hydrology and Earth System Sciences.

of Civil Engineering, NTUA.

- 2007-09 Associate editor, Water Resources Research.
- 2006-18 Co-Editor (started as Deputy Editor up to 2008), <u>Hydrological Sciences Journal</u> and member of the Bureau of the *International Association of Hydrological Sciences*.
- 2006-10 Chair of Sub-Division on Precipitation & Climate of the Division on Hydrological Sciences of the *European Geosciences Union*.
- 2003-06 Associate editor, Hydrological Sciences Journal.
- 2003-10 Member of the Board of Directors of the *Organization for the Management and Restoration of the Kephisos River and its Tributaries*.
- 2000-08 Associate editor, *Journal of Hydrology*.
- 1997-2004 Member of the Special Inter-department Committee of the postgraduate programme <u>Water</u>

  <u>Resources Science and Technology</u> and deputy responsible for the management and economics of the project for the creation and operation of the programme. (Also, member of the same Committee in 2010-13 and 2016-17.)

## **Experience record**

#### **Teaching Experience**

Forty-three years experience in teaching undergraduate and postgraduate courses in *Hydrometeorology*, *Engineering Hydrology*, *Advanced Hydrology*, *Hydraulics*, *Urban Hydraulic Works*, *Sediment Transport*,

Hydropower, Stochastic Methods, Water Resource Systems Optimization, Water Resource Management, Integrated Project of Hydraulic Engineering and Laboratory of Humanitarian Studies (unit: Introduction to the Scientific Method). Advisor of 160 diploma and postgraduate theses, and 28 doctoral theses, among which 13 completed.

## Research experience

Research in the areas of hydrological modelling, hydrological stochastics, hydroclimatology, analysis of hydrosystems, water resources engineering and management, water and energy, and hydroinformatics. Favourite research topics: entropic-stochastic representation of hydrological processes; hydroclimatic variability and Hurst-Kolmogorov dynamics; extreme rainfall and flood; parameterization, simulation and optimization of hydrosystems; water resource management; ancient water science, technology and management. Participation in 49 research projects, in 19 of which as project leader and in other 12 as principal investigator.

## Representative research projects:

- Modernization of the supervision and management of the water resource system of Athens
   (Commissioned by: Water Supply and Sewerage Company of Athens, Budget: 700 000 €, Project leader: D. Koutsoyiannis, 1999-2003).
- Hydroscope: Creation of a National Databank for Hydrological and Meteorological Information (Commissioned and funded by: General Secretariat of Research and Technology in the framework of the STRIDE EU programme and 8 governmental bodies, Partners: 13 academic, research and administrative bodies of Greece, Budget: 1 600 000 €, Project leader: D. Koutsoyiannis, 1992-1993).

#### **Engineering experience**

Participation in 65 engineering studies, 12 of which dealing with the hydrological design of dams in Greece (for hydro-electric energy, water supply and irrigation), 20 with hydrological and/or hydraulic design of hydraulic works in Greece (water supply, sewerage, flood protection, irrigation), and 6 with water resources management and environmental impacts. Structural design of several buildings and special constructions. Surveying engineering in the framework of several public and private works.

# Representative engineering studies:

- General outline of the Acheloos River diversion project (Commissioned by: Ministry of Environment, Planning and Public Works, Consultants: G. Kalaouzis, ELECTROWATT, P. Marinos, D. Koutsoyiannis, 1996).
- Engineering study for improving the water supply of Athens with the construction of a dam at the Evinos River (Commissioned by: Ministry of Environment, Planning and Public Works, Contractors: OTME, Ydroilektriki, YDROTEK, D. Constantinidis, G. Karavokiris, Th. Gofas and Partners, Consultant: D. Koutsoyiannis, 1991).

#### Participative experience

Participation in 11 international and national scientific organizations and 6 bodies and thematic committees. Member of the editorial boards of 6 scientific journals (*Hydrological Sciences Journal, Hydrology and Earth System Sciences, Water Resources Research, Journal of Hydrology, Hydrology* and *Sci*); also, Guest editor in 6 special issues of scientific journals. Reviewing and/or editing of over 680 papers in 45 journals. Reviewing of over 140 other items including articles in books and conference proceedings, and research and book proposals. Participation in organizing committees of over 70 conferences and scientific workshops. Participation in over 60 reviewing committees for awarding doctorate degrees, election in academic positions or awarding prizes. Participation in 5 administrative bodies and 30 committees and work groups in NTUA.

#### **Published work**

229 publications in scientific journals, 8 books (6 of which are textbooks), 518 publications and talks in conferences and workshops, 40 series of lecture notes, 2 university theses, 98 research project reports, 93 technical reports of engineering studies, 74 miscellaneous publications (1069 scientific and technological contributions in total).

#### Representative publications:

- Koutsoyiannis, D., 2020. Revisiting the global hydrological cycle: is it intensifying?. Hydrology and Earth System Sciences, 24, 3899-3932.
- Koutsoyiannis, D., 2010. A random walk on water. Hydrology and Earth System Sciences, 14, 585-601.
- Koutsoyiannis, D., 2020. <u>Stochastics of Hydroclimatic Extremes A Cool Look at Risk</u>, 330 pages, National Technical University of Athens, Athens.

Bibliometric data (In parentheses are data excluding self-citations, whenever provided by the Source)

Source	Number of registered publications	Number of cited publications	Number of citations	<u>H-index</u>	Harzing index*
Google Scholar	914	578	17602	70	49
ResearchGate	940		15 607	65	
Scopus	223	220	9235 (7824)	53 (48)	35
ISI Web of Science	236	212	8546	50	

<sup>\*</sup> Note: In the Harzing index (else denoted HI-norm) the citations are normalized by the number of authors.

# Awards, honours and biographical citations

<u>International Hydrology Prize – Dooge medal</u> (2014) by <u>International Association of Hydrological Sciences</u> (IAHS), <u>UNESCO and World Meteorological Organization (WMO)</u> for outstanding and fundamental contributions to the science of hydrology.

<u>Henry Darcy Medal</u> (2009) by the <u>European Geosciences Union (EGU)</u> for outstanding contributions to the study of hydrometeorological variability and to water resources management.

Lorenz Lecture, American Geophysical Union (San Francisco, USA, 2014).

Lectio Inauguralis, Pontificia Universidad Javeriana (Bogotá, Colombia, 2014).

<u>Invited lecturer</u> for the Opening Ceremony of the XXXIII Conference of Hydraulics and Hydraulic Engineering (Brescia, Italy, 2012).

<u>Union Plenary Speaker</u> of the <u>International Union of Geodesy and Geophysics (IUGG)</u> (Melbourne, Australia, 2011).

Invited speaker in more than 30 other conferences and workshops.

Water Resources Research Editor's Citation for Excellence in Refereeing (2000).

Who's Who in the World (2001); Who's Who in Science and Engineering (1998-99).

# Other biographical data

Military record Seaman, Hellenic Navy, Greece (25 months: 1984-86).

Languages Greek, English.

Computer skills Programming languages: Pascal, Object Pascal, C, BASIC, Visual BASIC, FORTRAN; Operating

systems: MS-DOS, MS-Windows, Unix (Linux); Office automation applications; Mathematical

applications.

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#### Bibliometric data as of 2022-12-10

