

# Demetris Koutsoyiannis – Short curriculum vitae

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## 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*, *Sci* and *Science of Climate Change*. 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 [European Geosciences Union \(EGU\)](#). His distinctions include the [Lorenz Lecture](#) of the [American Geophysical Union \(AGU\)](#) (San Francisco, USA, 2014) and the [Union Plenary Lecture](#) of the [International Union of Geodesy and Geophysics \(IUGG\)](#) (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	Professor Emeritus, National Technical University of Athens (NTUA)
Contact info	Heroon Polytechniou 5, GR-157 72 Zographou, Greece, tel. +30 210 772 2831, email <a href="mailto:dk@itia.ntua.gr">dk@itia.ntua.gr</a> , URL <a href="http://www.itia.ntua.gr/dk/">http://www.itia.ntua.gr/dk/</a>

## Education and degrees conferred

1983-88	Doctoral thesis in the School of Civil Engineering, NTUA. (Doctor Engineer degree in 1988; title of thesis: <i>A disaggregation model of point rainfall</i> ; 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

2023-	Professor Emeritus, NTUA.
2008-22	Professor in <i>Hydrology and Analysis of Hydrosystems</i> , Department of Water Resources and Environmental Engineering, School of Civil Engineering, NTUA.
2007-10	Professor of <i>Hydraulics</i> , The Hellenic Army's Postgraduate School of Technical Education of Officers Engineers.

- 2003-08 Associate Professor in *Analysis and modelling of hydrological processes and hydrosystems*, Dept. of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering, NTUA.
- 1995-2003 Assistant Professor in *Engineering Hydrology: Information management and stochastic modelling*, Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering.
- 1990-95 Lecturer, Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering, NTUA.
- 1979-90 Research Assistant, Department of Water Resources, Hydraulic and Maritime Engineering, School of Civil Engineering, NTUA.

### **Visiting academic**

- 2008 & 2019 Sapienza University of Rome (Italy)
- 2006 & 2019 University of Bologna (Italy)
- 2005-06 Georgia Institute of Technology (Atlanta, USA)
- 2005 Hydrologic Research Center (San Diego, USA)
- 1999-2000 Imperial College (London, UK)

### **Engineering employment**

- 2022- Independent science consultant.
- 2022- Faculty member, IRMA\_SYS (consulting company for water resource management).
- 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, Polytechnique 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*.
- 2007-09 Associate editor, *Water Resources Research*.
- 2006-18 Co-Editor (started as Deputy Editor up to 2008), [\*Hydrological Sciences Journal\*](#) 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 [Water Resources Science and Technology](#) 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 (13 completed, 15 in progress).

### 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 20 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 7 scientific journals (*Hydrological Sciences Journal*, *Hydrology and Earth System Sciences*, *Water Resources Research*, *Journal of Hydrology*, *Hydrology*, *Sci* and *Science of Climate Change*); also, Guest editor in 6 special issues of scientific journals. Reviewing and/or editing of about 700 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

262 publications in scientific journals, 10 books (6 of which are textbooks), 555 publications and talks in conferences and workshops, 41 series of lecture notes, 2 university theses, 98 research project reports, 93 technical reports of engineering studies, 104 miscellaneous publications (1172 [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., 2023. [Stochastics of Hydroclimatic Extremes - A Cool Look at Risk](#), Edition 4, ISBN: 978-618-85370-0-2, 400 pages, doi: 10.57713/kallipos-1, Kallipos Open Academic Editions, Athens.

*Bibliometric data as of 2024-12-31 (In parentheses are data excluding self-citations, whenever provided by the Source)*

Source	Number of registered publications	Number of cited publications	Number of citations	H-index	Harzing index*
<a href="#">Google Scholar</a>	1000	640	21 562	75	52
<a href="#">ResearchGate</a>	1017		19 186	72 (63)	
<a href="#">Scopus</a>	277	256	11 676 (9 876)	59 (52)	38
<a href="#">ISI Web of Science</a>	568	234	10 519	55	

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

## Awards, honours and biographical citations

- [International Hydrology Prize – Dooge medal](#) (2014) by [International Association of Hydrological Sciences \(IAHS\)](#), [UNESCO](#) and [World Meteorological Organization \(WMO\)](#) for outstanding and fundamental contributions to the science of hydrology.
- [Henry Darcy Medal](#) (2009) by the [European Geosciences Union \(EGU\)](#) 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).
- [Invited lecturer](#) for the Opening Ceremony of the XXXIII Conference of Hydraulics and Hydraulic Engineering (Brescia, Italy, 2012).
- [Union Plenary Speaker](#) of the [International Union of Geodesy and Geophysics \(IUGG\)](#) (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.

*Updated: 30 December 2024*