

**Antonis D. Koussis**

Director of Research IERSD

Dr. – Ing., Water resources engineering, Technische Hochschule Darmstadt, Germany, 2/1974  
Dipl. Ing., Civil Engineering, Technische Hochschule Darmstadt, Germany, 11/1970

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web: [http://members.noa.gr/akoussis/ADKcv\\_ENG.pdf](http://members.noa.gr/akoussis/ADKcv_ENG.pdf)**PROFESSIONAL EXPERIENCE**

- 12/1995 – present: Director of Research, IERSD/National Observatory of Athens
- 2/2012 – 7/2012 & 5/2013, 10-11/2013 Visiting Researcher, Dept. Natural Geography & Quaternary Geology, Stockholm University
- 9/2006 – 1/2007 Visiting Professor, Dept. Civil & Env. Eng., University of Cyprus
- 6/1998 – 10/2000 Director General, Institute of Geology & Mineral Exploration of Greece
- 1995 Visiting Professor, Dept. Ingeniería Química, Universidad de Málaga
- 1991 – 1994 Prof. Hydrogeology & Water Resources Engineering, University of Kansas
- 1/ – 6/1985 Visiting Fellow, Dept. Civil Engineering, Princeton University
- 1982 – 1991 Associate Professor and 1980-1982 Assistant Professor of Civil and Environmental Engineering, Vanderbilt University, Nashville, Tennessee
- 1976 – 1980 Assistant Professor of Civil Engineering, Northeastern University, Boston, & University of Florida; 3/ – 6/1976 Visiting Fellow, Dpt. Mech. Eng., Wayne State U
- 11/1970 – 3/1975 *Dozent* (8/1973-3/1975) and Staff Scientist (11/1970-7/1973), Institut für Hydraulik und Hydrologie, Technische Hochschule Darmstadt, Germany
- 1975 Military Service, Greek Air Force

**AREAS OF EXPERTISE**

Water Resources Engineering & Management: Analytical and Numerical Modelling of Flow & Transport in Groundwater – Sea Intrusion in Coastal Aquifers; Flood Routing & Watershed Hydrology – Hydrometry; Regulatory: Civil Protection/Flood Emergencies – EC WFD.

**HONORS / FELLOWSHIPS / OTHER RELEVANT EXPERIENCE**

- Scholarship, 1968-1970, German Academic Exchange Service (DAAD)
- Chi Epsilon “ $\chi\epsilon$ ” Honour Society Membership (Civil Engineering, USA)
- Scholarship, 1995, Dirección General de Investigaciones Científicas y Técnicas, Spain
- Associate Editor, 2007 – 2013, *Hydrological Sciences Journal*
- Member (at various times) American Geophysical Union; American Society of Civil Engineers; National Ground Water Association; European Geophysical Union
- Professional Licenses: Federal Republic of Germany (VDI); Greece (TEE)

**PUBLICATIONS**

Authored/co-authored 62 papers published in refereed journals; ~600 citations in the Web of Science DB; SCI *h-index* = 15. Guest co-editor of the Special Issue *Groundwater & Climate in Africa*, *Hydrological Sciences Journal*; two book chapters. Representative papers:

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- Syriopoulou, D. and A. D. Koussis (1991) 2-D modeling of advection-dominated solute transport in groundwater by the matched artificial dispersivity method, *Water Resour. Res.*, **27**(5): 865-872.
- Sophocleous, M., A. D. Koussis, J. L. Martin and S. P. Perkins (1995) Evaluation of simplified stream-aquifer depletion models for water rights administration, *Ground Water*, **33**(4): 579-588.
- Koussis, A. D. *et al.* (2003) Flood forecasts for an urban basin with integrated hydro-meteorological model, *J. Hydrologic Engineering*, **8**(1): 1-11.
- Koussis, A.D. *et al.* (2010a,b) Cost-efficient management of coastal aquifers via recharge with treated wastewater and desalination of brackish groundwater: (a) General framework, (b) Application to Akrotiri basin and aquifer, Cyprus, *Hydrol. Sci. J.*, **55**(7): 1217–1233, 1234–1245.
- Koussis, A. D., K. Mazi and G. Destouni (2012) Analytical single-potential, sharp-interface solutions for regional seawater intrusion in sloping unconfined coastal aquifers, with pumping and recharge, *J. Hydrology*, **416–417**: 1–11.

#### STUDENT AND POSTDOC SUPERVISION

Supervision of 6 Post-docs, 3 PhD and 11 MSc students; external referee for 1 PhD thesis (Monash U., Australia); currently co-supervising 2 PhD students (Stockholm University and Cyprus University of Technology).

#### CURRENT RESEARCH FUNDING (CAREER FUNDING ~ 2 M€)

- DEUCALION – Estimation of flood discharges in Greece under conditions of hydro-climatic variability: Development of physics-based conceptual-probabilistic framework and computational tools, GSRT Contract 09ΣYN-31-798, 2011-2014; € 120000 (NOA).
- PRIMA: Particle Representation in Modeling Applications, Marie Curie Reintegration Grant of E. Akylas, €45000, 9/2008–8/2011; A.D. Koussis Supervising Scientist.

#### OTHER

- Member, Senate of Vanderbilt University, 1986-1989
  - External evaluator for promotion (academic: from Assistant to Associate Professor – USA, and research: a National Geological Survey)
  - Member of scientific committees in international conferences
  - Referee for scientific journals, mainly *Journal of Hydraulic Eng.* (ASCE), *Water Resources Research* (AGU), *Journal of Hydrology*, *Hydrology & Earth Systems Sciences* (HESS).
  - Reviewer of research proposals for EC, US-NSF, USEPA, GSRT (Greece)
  - Member: committees of American Soc. Civil Eng. (ASCE) and of IAHR/IAWPRC
  - Consulting activity (USA, Greece, Colombia); EC Expert and Expert to CEDEX, Spain
  - Dir. General - Institute of Geology & Mineral Exploration of Greece: secured ~53 M€ from the 3rd European Community Support Framework (CSF) for the Operational Programme of the Institute for Geology & Mineral Exploration of Greece 2000-2006 (Institute's activities and construction of a new facility to house the administration, the scientific and the technical support units of the Institute); also secured Drs. 1 Billion (~M€ 3) from the 2<sup>nd</sup> CSF for establishing the Greek Groundwater Monitoring Network.
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