# **CURRICULUM VITAE**

# ATHANASIOS LOUKAS

Associate Professor of Hydrology and Water Resources Department of Rural and Surveying Engineering Aristotle University of Thessaloniki 54124 Thessaloniki

**Visiting Professor** 

Department of Civil and Environmental Engineering Colorado State University

Laboratoire d'étude des Transferts en Hydrologie et Environnement Physique, Ingenierie, Terre, Environment, Mécanique Joseph Fourier Université-Grenoble I

October 2018

#### I.1. PERSONAL

Name: Athanasios Loukas
Birth Date: 4<sup>th</sup> December 1964
Birth Place: Thessaloniki

Marital Status: Widowad with

Marital Status: Widowed with one child Home Address: 28 Agamemonos Str.

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#### I. 2. EDUCATION

#### a) The University of British Columbia, 1991-1994

Ph.D. in Hydrology and Water Resources Supervisor: Dr. Michael C. Quick, Professor

Ph.D. Dissertation Title: Mountain Precipitation Analysis for the Estimation of Flood Runoff in

Coastal British Columbia.

# b) The University of British Columbia, 1989-1991

M.A.Sc. in Hydrology and Water Resources

Supervisor: Dr. Michael C. Quick, Professor

M.A.Sc. Thesis Title: Analysis of the Response and the Rainfall Distribution in a Mountainous Watershed.

# c) Aristotle University of Thessaloniki, 1983-1988

Diploma in Rural and Surveying Engineering (Dipl. Eng.)

Supervisor: Dr. Panagiotis Tolikas, Associate Professor

Dipl. Eng. Thesis Title: Simplified Techniques for the Solution of Horizontal Soil Moisture Transfer in Unsaturated Porous Media

# I. 3. SCHOLARSHIPS AND ACADEMIC PRIZES

# 1) Postgraduate Studies

- University of British Columbia Graduate Fellowship, 1989-1994
- Scholarship of the Scientific Program of N.A.T.O., 1989-1991
- Scholarship of Public Benefit Foundation "Alexander S. Onassis", 1989-1990
- Earl R. Peterson Memorial Scholarship in Civil Engineering, 1991
- Scholarship of the Scientific Program of N.A.T.O., 1991-1994

# 2) Undergraduate Studies

- Scholarship of Greek State Scholaships Foundation, 1984-1988
- Scholarship of K. Velliou-Baronou Foundation, 1984-1988
- Academic Prize of Workers Centre, 1984-1988
- Academic Prize of Technical Chamber of Greece, 1988

#### 3) Professional Academic Period

- Fulbright Foundation Research Scholar Scholarship, Colorado State University, Department of Civil and Environmental Engineering, 2013
- Joseph Fourier University, Laboratoire d'étude des Transferts en Hydrologie et Environnement (LTHE), Invited Researcher (Professor 1st class), 2013

# I. 4. TEACHING AND RESEARCH EXPERIENCE

- 1) Associate Professor, Department of Rural and Surveying Engineering, Aristotle University of Thessaloniki, 2018-today
- Teaching Courses: Engineering Hydrology, Hydraulics of Open Channel Flow, Groundwater Hydraulics, Surface Water Resources (post-graduate course), Probability Theory-Statistical Methods (post-graduate course), Groundwater Resources (post-graduate course), Applications of Geoinformatics on Water Resources Issues (post-graduate course).
- 2) Visiting Professor, Department of Civil Engineering, University of Thessaly, 2018-today.
  - Teaching Courses: Design of Reservoir and Hydroelectric Power (post-graduate course).
- 3) Professor, Department of Civil Engineering, University of Thessaly, 2011 2018
- Teaching Courses: Hydrology, Dams and Reservoirs, Applications of Hydrosystems Simulation (post-graduate course), Risk Analysis and Decision Making in Water Resources Systems (post-graduate course), Floods (post-graduate course), Forecasting of Hydrohazards (post-graduate course), Reservoir Design and Hydroelectric Power (post-graduate course).
- 4) Visiting Professor, Department of Rural and Surveying Engineering, Aristotle University of Thessaloniki, 2015-today
  - Teaching Courses: Engineering Hydrology and Open Channel Hydraulics
- 5) Associate Professor, Department of Civil Engineering, University of Thessaly, 2005 2011
- Teaching Courses: Hydrology, Stochastic Hydrology, Dams and Reservoirs, Applications of Hydrosystems Simulation (post-graduate course), Risk Analysis and Decision Making in Water Resources Systems (post-graduate course), Floods (post-graduate course), Forecasting of Hydrohazards (post-graduate course), Droughts (post-graduate course).
- 6) Sessional Lecturer / Assistant Professor / Associate Professor (under contract), Department of Civil Engineering, University of Thessaly, 1997 2005
- Teaching Courses:: Hydrology, Hydrology II, River Training and Engineering, Geodesy I, Geodesy II, Surveying Practice, History of Technology.
- 7) Sessional Associate Professor (under contract), Department of Agriculture Plant Production and Rural Environment, University of Thessaly, 2004 2005
  - Teaching Course: Surveying
- 8) Sessional Assistant Professor (under contract), Department of Agriculture Animal Production and Water Environment, University of Thessaly, 2003 2004
  - Teaching Courses: Surveying and Cartography, Sustainable Water Resources Management
- 9) Sessional Assistant Professor (under contract), Department of Management of Rural Environment and Natural Resources, University of Thessaly, 1998 2003
- Teaching Courses: Hydrology, Water Resources Management, Climatic Variability and Natural Resources, Natural Environmental Hazards, Erosion and Protection of Land Resources Sedimentation, Applications of New Technologies in the Development and Planning of Rural Environment, Surveying and Cartography, Waste Water Disposal and Protection of Water Environment
- 10) Scientific Associate (under contract), Department of Civil Works, Technological Educational Institution of Larisa, 1997 2000
  - Teaching courses: Hydrodynamic Works Dams and Reservoirs
- 11) Teaching Personnel (under contract), 1996-1998
- 1<sup>st</sup> Institute of Professional Education of Thessaloniki, 1996- 1998: Teaching courses of professional specialization «Expert in Geographical Information Systems».
- Military School of Air Force, 1996- 1998: Teaching courses: Surveying, Surveying and Mapping.
- 12) Post Doctoral Research Associate, Department of Civil Engineering, University of British Columbia, 1994 1995
- 13) Teaching Assistant, Department of Civil Engineering, University of British Columbia, 1989-1995
- Teaching the laboratory sessions of courses: Hydraulics of Open and Closed Conduits, Fluid Mechanics, Surveying.

#### I. 5. SUPERVISION OF PHD DISSERTATIONS MASTER AND DIPLOMA THESES

Main supervisor of seven (7) Ph.D. Dissertations and twenty (20) Master Theses. Member of supervisory committee of fifteen (15) Ph.D. Dissertations and ten (10) Master Theses.

Main supervisor of twenty two (22) Diploma Theses.

#### I. 6. ACADEMIC ADMINISTRATIVE EXPERIENCE

- 1) Director of the Postgraduate Studies Program "Water Resources", Department of Rural and Surveying Engineering, Aristotle University of Thessaloniki, 2018-today.
- 2) Dean of the School Engineering, University of Thessaly, 2015-2018
- 3) Chairman of the Civil Engineering Department, University of Thessaly, 2008 2012
- 4) Director (Greek side) of the common Greek-French Postgraduate Studies Program "Management of Hydrometeorological Hazards-HYDROHASARDS", 2010 2018
- 5) Director of Laboratory of Hydrology and Aquatic Systems Analysis, Department of Civil Engineering, University of Thessaly, 2008-2018
- 6) Member of the University of Thessaly Senate, 2008-2012; 2015-2018
- 7) Member of University of Thessaly committees, such as Strategic Development Committee, Committee of European Programs and International Affairs (Erasmus), University of Thessaly Property Management Company S.A. among others, 2008-2018
- 8) Academic Departmental Coordinator of Erasmus+ program, Department of Civil Engineering, University of Thessaly, 2006-2018

#### I. 7. PROFESSIONAL EXPERIENCE

1) Administrative and Financial Director and Project Manager, Program of Elective Studies «Management of Rural Environment and Natural Resources», University of Thessaly, 1998 – 2003

#### 2) Professional Engineering Consultant, Thessaloniki, 1996 – 2005

- Scientific Associate-Consultant in: a) fifteen (15) hydrological and hydraulic projects (study and design of dams, design of urban water supply and waste water networks, river training, etc.), b) fourteen (14) environmental impact studies, c) six (6) surveying studies.

# I. 8. PARTICIPATION IN RESEARCH AND EDUCATIONAL PROJECTS

- 1) "Management Plans of Flood Risks for River Basins in Thessaly and Epirus Regions, Greece", Special Secretariat of Water, Ministry of Environment and Climate Change, Consortium J. Karavokyris and Associates Consulting Engineers S.A. Scientific Responsible: Prof. A. Loukas. Budget: 100,000 €(2015-2018).
- 2) "Evaluation of Alternative Scenarios of Irrigation Withdrawals from Pinios River for the LALR Pinios-Pumping Station B", Region of Thessaly, Coordinator: K. Iakovakis, Scientific Responsible: Prof. A. Loukas, Budget: 10,000 €(2014).
- 3) "MAthematical Modeling of Microcystis aeruginosa as a KEy-player in Lakes under REconstruction (LAKEREMAKE)", Greek Ministry of Education G.S.R.T., Action ARISTEIA II, Coordinator: Ass. Prof. Ch. Laspidou, Budget: 200,000 € (2014-2016) (<a href="http://www.lakeremake.uth.gr/">http://www.lakeremake.uth.gr/</a>).
- 4) "Contemporary Environmental and Technological Applications for the Monitoring, Management and Evaluation of Water Resources Systems" Long Life Education Programme for Updating Knowledge of University Graduates (PEGA), Ministry of Education and Religious Affairs-Project: 144\_20\_1.2\_2. Coordinator: Prof. A. Loukas, Budget: 235,000 € (2013-2015). (http://www.edulll.gr/?p=21645).
- 5) "Assessment of EUROpean AGRIculture WATer use and trade under climate change (EURO-AGRIWAT)" COST Action ES1106. National Representative (2012-2016).
- 6) "Development of an Integrated Water Resources Environmental and Socioeconomic Modeling System – Application of the System to the Restored Lake Karla (DIWRESMSARLKT)". Greek

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- Ministry of Education. Program Archimedes III, Coordinator: Prof. N. Samaras, Budget: 100,000 €(2012-2014).
- 7) "Development of an Integrated System for the Water Resources Quality and Quantity Monitoring and Management of Agricultural Watersheds Under Climate Change Conditions. Application to Lake Karla Watershed (HYDROMENTOR)", General Secretariat for Research and Technology. National Action "Cooperation", Coordinator: Prof. A. Loukas, Budget: 450,000 €(2011-2015).
- 8) "European procedures for flood frequency estimation (FloodFreq)" COST Action ES0901. National Representative (**2010-2013**).
- 9) "Climate Change Effects Estimation on Hydrometeorological Data in Thessaly, Epirus and West Sterea Ellada", Special Secretariat of Water, Ministry of Environment and Climate Change, Consortium J. Karavokyris and Associates Consulting Engineers S.A. Scientific Responsible: Assoc. Prof. N. Mylopoulos. Budget:58,000 €(2011)
- 10) "Agricultural Innovations in Mediterranean Regions (NOVAGRIMED)" Interreg IV MED programme. Scientific Responsible: Conseil Régional Provence-Alpes-Côte d'Azur Provence Alpes Côte d'Azur (France). Budget: 1,850,000 €(2009-2011).
- 11) "Sustainable Use of Irrigation Water in the Mediterranean Region (SIRRIMED)" FP7-KBBE-2009-3 Proposal Reference Number: FP7-245159. Scientific Responsible: Dr. Juan José Alarcón, Budget: 4,050,000 €(2010-2013).
- 12) "Reconnaissance Study of Land Subsidence in Karla Municipality". Municipality of Karla. Scientific Responsible: Assoc. Prof. A. Loukas, Budget: 10,000 €(2010).
- 13) "An Exercise to assess research needs and policy choices in areas of drought (XERICHORE)" 7th Framework Program FP7-ENV-2007-1 (ENV.2007.1.3.3.3.) Grant agreement no.: 211837. Scientific Responsible: Dr. Anil Markandya, Budget: 1,800,000 €(2008-2010).
- 14) "Reconnaissance Study of Dam and Reservoir Development in the Position of Gavroneri Stomiou". Municipality of Evrimenon. Scientific Responsible: Assoc. Prof. N. Mylopoulos, Budget: 12,000 €(2009).
- 15) "OpenMI-Life". EC Life Environment Program. Scientific Responsiple: Dr. R. Moore, Budget: 4,000,000 €(2006-2009).
- 16) "Investigation and Development Hybrid Methodologies of Statistical Downscalling of Meteorological Parameters for the Estimation of Climate Change Impacts on Drought Severity", Research Committee, University of Thessaly. Scientific Responsible: Assoc. Prof. A. Loukas (2007-2008).
- 17) "The Water Diversion from Acheloos River in the Perspective of Integrated Water Resources Management of Thessaly". Regional Municipality Union of Thessaly. Scientific Responsible and Project Lead Partner: Ass. Prof. N. Mylopoulos. Budget: 35,400 € (2003-2005).
- 18) "Database Development of Surface Water and Groundwater Measurements and Evaluation of Reclamation Works in Thessaly". Regional Development Fund of Thessaly. Scientific Responsiple: Prof. Y. Mylopoulos. Budget: 120,000 € (2003-2005).
- 19) "DEMonstration of Earth observation Technologies in Routine irrigation advisory services (DEMETER)". 5<sup>th</sup> Framework, Energy, Environment and Sustainable Development, RTD Network Program. Scientific Responsible: Dr. Alfonso Calera Belmonte. Budget: 2,800,000 € (2002-2005).
- 20) "Program of Elective Studies Management of Rural Environment and Natural Resources". Greek Ministry of Education and Religious Affairs. Scientific Responsible: Prof. N.R. Dalezios. Budget: 1,000,000 € (2002-2005).
- 21) "Network of Study and Research for Water Resources with Applications in Cyprus and Greece". Greek General Secretariat of Research and Technology. Scientific Responsible for Greece: Ass. Prof. E. Sidiropoulos. Budget: 18,000 €. (2002-2003).
- 22) "Project for the Training of Elementary and High School Teachers in Environmental Education" Greek Ministry of Education and Religious Affairs. Scientific Responsible: Prof. N.R. Dalezios. Budget: 300,000 € (1999-2001).

23) "Program of Elective Studies – Management of Rural Environment and Natural Resources". Greek Ministry of Education and Religious Affairs. Scientific Responsible: Prof. N.R. Dalezios. Budget: 900,000 € (1998-2000).

- 24) "Adaptation of the UBC Watershed System for Water Quality Modelling and Use with Meteorological Forecast Models". British Columbia Science Council. Scientific Responsible: Dr. J. David Cattanach, B.C. Hydropower Authority. Budget: 240,000 CAD\$ (1995-1996).
- 25) "Hydrologic Simulation Model Development for the Sooke Lake Watershed" (Greater Victoria Water District). Scientific Responsible: Prof. M.C. Quick. Budget: 65,000 CAD\$ (1995).

# I. 9. MEMBER OF SCIENTIFIC COMMITTES EDITORIAL BOARDS AND ORGANISATIONS

- Editor-in-Chief of European Water (2013-)
- Associate Editor of European Water (2010-2013)
- Section Editor-in-Chief "Water Resources Management and Governance" of Water (2018-)
- Associate Editor of Water (2009-2017)
- Member of Editorial Board of Scientific Review Engineering and Environmental Sciences (2013- )
- Member of Editorial Board of GeoHazards (2018-)
- Associate Editor-in-Chief of *Journal of Spatial Hydrology* (2007-2010)
- -Guest Editor of *Environmental Process (ENVPR)* for the special issue "Water Quality and Environmental Technology"
- -Guest Editor of *Natural Hazards and Earth System Sciences (NHESS-EGU)* for the special issue "Diagnosis, modelling and forecasting of meteorological and hydrological hazards produced by extreme weather and climate change"
- Guest Editor of *Hydrological Processes* for the special issue "S138 Climate Change, Land Cover Dynamics and Eco-Hydrology of the Nile River Basin"
- -Guest Editor of *Natural Hazards and Earth System Sciences (NHESS-EGU)* for the special issue "Extreme Events Induced by Weather and Climate Change: Evaluation, Forecasting and Proactive Planning"
- -Guest Editor of *Natural Hazards and Earth System Sciences (NHESS-EGU)* for the special issue "Assessment and Forecasting of Disaster Risk and Proactive Planning of Extreme Hydrometeorological Events"
- -Guest Editor of *Natural Hazards and Earth System Sciences* (NHESS-EGU) for the special issue "Advanced methods for flood estimation in a variable and changing environment"
- Reviewer of IPCC Special Report "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)" and Abstract for Policymakers (SPM) and IPCC Assessment Report AR5
- -Reviewer of research proposals in the areas of Water Resources Management and Management of Natural Hazards, Directorate General XII, Science, Research and Development.
- Reviewer of research proposals in the areas of Environment and Water Resources for National Greek and Cyprian Calls
- Member: Technical Chamber of Greece, Greek Union of Rural and Surveying Engineers, International Association of Hydrological Science (IAHS), European Geophysical Union (EGU), Greek Association of Water Resources Management (Elected officer 2005-today), European Water Resources Association (EWRA), Greek Laboratory Network for Hydrology and Environmental Water Resources Management "HydroMedon" (Secretary 2008-today), Global Nest
- National Representative in Steering Committee for Education for Sustainable Development of United Nations (UNECE) (2017-)
- National Representative in COST 719 The Use of Geographic Information Systems in Climatology and Meteorology

- National Representative in COST ES0901 - National Procedures for Flood Frequency Analysis (FloodFreq)

- National Representative in COST ES1106 Assessment of EUROpean AGRIculture WATer use and trade under climate change (EURO-AGRIWAT)
- National Representative in COST CA 15206 Payments for Ecosystem Services (Forests for Water) (PES)
- Regular reviewer of scientific journals: Journal of Hydrology, Journal Physics and Chemistry of the Earth, Natural Hazards and Earth System Sciences, Hydrology and Earth System Sciences, Water Resources Management, Hydrological Processes, Journal of Theoretical and Applied Climatology, Journal of River Basin Management, Sensors, Forest and Agricultural Meteorology, Hydrology Research, Climate Change, Agricultural Water Management, Annals of the American Association of Geographers, Environmental Modelling & Software, Stochastic Environmental Research and Risk Assessment, Environmental Processes, Natural Hazards, Υδροτεχνικά.
- Organizer and member of organizing and scientific committees of international conferences

# I. 10. RESEARCH INTERESTS

Random listing of research interests of Dr. Athanasios Loukas:

- Hydrologic simulation of watersheds with conceptual and stochastic models,
- Methodologies for the runoff estimation in ungauged watersheds,
- Methodologies for the estimation and study of floods and droughts,
- Hydrodynamic flood routing modeling,
- Impacts of climate change on hydrological processes, extremes and water resources,
- Integrated water resources management,
- Applications of G.I.S. and Remote Sensing in hydrology and water resources management,
- Impacts of land use changes on water resources,
- Mountain hydrology,
- Temporal and spatial distribution of hydrometeorological parameters,
- Design and simulation of water works operation,
- Watershed water quality simulation,
- Natural environmental hazards and their impacts.

# II. 1. PUBLICATIONS

#### A. Dissertation and Theses

- A.1. **Loukas, A.** (1988). "Simplified Techniques for the Solution of Horizontal Soil Moisture Transfer in Unsaturated Porous Media". Dipl. Eng. Thesis, Aristotle University of Thessaloniki, Greece, 131 pp. (in Greek)
- A.2. **Loukas, A.** (1991). "Analysis of the Response and the Rainfall Distribution in a Mountainous Watershed". M.A.Sc. Thesis, University of British Columbia, Canada, 159 pp.
- A.3. **Loukas, A.** (1994). "Mountain Precipitation Analysis for the Estimation of Flood Runoff in Coastal British Columbia." Ph.D. Dissertation, University of British Columbia, Canada, 321 pp.

# **B. Papers in International Refereed Journals**

- B.1. **Loukas, A.** and M.C. Quick (1993). "Hydrologic Behaviour of a Mountainous Watershed." *Canadian Journal of Civil Engineering*, **20**(1), pp. 1-8.
- B.2. **Loukas, A.** and M.C. Quick (1993). "Rain Distribution in a Mountainous Watershed." *Nordic Hydrology*, **24**(4), pp. 225-242.
- B.3. **Loukas, A.** and M.C. Quick (1994). "Precipitation Distribution in Coastal British Columbia." *Water Resources Bulletin*, **30**(4), pp. 705-727.
- B.4. **Loukas, A.** and M.C. Quick (1995). "Comparison of Six Extreme Flood Estimation Techniques for Ungaged Watersheds in Coastal British Columbia." *Canadian Water Resources Journal*, **20**(1), pp. 17-30.
- B.5. **Loukas, A.** and M.C. Quick (1995). "Spatial and Temporal Distribution of Storm Precipitation in Southwestern British Columbia." *Journal of Hydrology*, **174**, pp. 37-56.
- B.6. **Loukas, A.** and M.C. Quick (1995). "24-hour Design Storm for Coastal British Columbia." *ASCE Journal of Hydraulic Engineering*, **121**(12), pp. 889-899.
- B.7. **Loukas, A.** and M.C. Quick (1996). "Physically-Based Estimation of Lag Time for Forested Mountainous Watersheds." *IAHS Hydrological Sciences Journal*, **41**(1), pp. 1-19.
- B.8. **Loukas, A.**, M.C. Quick and S.O. Russell (1996). "A Physically-Based Stochastic-Deterministic Procedure for the Estimation of Flood Frequency." *Water Resources Management*, **10**, pp. 415-437.
- B.9. **Loukas, A.** and M.C. Quick (1996). "The Effect of Climate Change on Hydrologic Regime of Two Climatically Different Watersheds." *ASCE Journal of Hydrologic Engineering*, **1**(2), pp. 77-87.
- B.10. **Loukas, A.** and M.C. Quick (1999). "The Effect of Climate Change on Floods in British Columbia." *Nordic Hydrology*, **30**(3), pp. 231-256.
- B.11. **Loukas**, A., L. Vasiliades and N.R. Dalezios (2000). "Flood Producing Mechanisms Identification in Southern British Columbia, Canada" *Journal of Hydrology*, **227**(1-4), pp. 218-235.
- B.12. **Loukas, A.** and N.R. Dalezios (2000). "Response Time of Forested Mountainous Watersheds in Humid Regions." *Nordic Hydrology,* **31**(3), pp. 149-168.
- B.13. Dalezios, N.R., **A. Loukas**, L. Vasiliades and E. Liakopoulos (2000). "Severity-Duration-Frequency Analysis of Droughts and Wet Periods in Greece." *IAHS Hydrological Sciences Journal*, **45**(5), pp. 751-770.
- B.14. **Loukas**, **A**, L. Vasiliades, N.R. Dalezios and C. Domenikiotis (2001). "Rainfall Frequency Mapping for Greece." *Physics and Chemistry of the Earth-Part B-Hydrology, Oceans & Atmosphere*, **26**(9), pp.669-674.
- B.15. Dalezios, N.R., C. Domenikiotis, **A. Loukas**, S.T. Tzortzios and C. Kalaitzidis (2001). "Cotton Yield Estimation Based on NOAA/AVHRR Produced NDVI", *Physics and Chemistry of the Earth-Part B-Hydrology, Oceans & Atmosphere*, **26**(3), pp.247-251.
- B.16. Domenikiotis, C., N.R. Dalezios, **A. Loukas** and M. Karteris (2002). "Agreement Assessment of NOAA/AVHRR NDVI with Landsat TM NDVI for Mapping Burned Forested Areas." *International Journal of Remote Sensing*, **23**(20), pp. 4235-4246.
- B.17. **Loukas, A.** (2002). "Flood Frequency Estimation by a Derived Distribution Procedure." *Journal of Hydrology*, **255**(1-4), pp. 69-89.

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B.18. **Loukas, A.**, L. Vasiliades and N.R. Dalezios (2002). "Potential Climate Change Impacts on Flood Producing Mechanisms in Southern British Columbia, Canada Using the CGCMa1 Simulation Results." *Journal of Hydrology*, **259** (1-4), pp. 163-188.

- B.19. **Loukas, A.**, L. Vasiliades and N.R. Dalezios (2002). "Hydroclimatic Variability of Regional Droughts in Greece Using the Palmer Moisture Anomaly Index." *Nordic Hydrology*, **35**(5), pp. 425-442.
- B.20. **Loukas, A.,** L. Vasiliades, and N.R. Dalezios, (2002). "Climatic Impacts on the Runoff Generation Processes in British Columbia, Canada". *Hydrology and Earth System Sciences*, **6**(2), 211-227.
- B.21. Dalezios, N.R., **A. Loukas**, and D. Bampzelis, (2002). "Spatial Variability of Reference Evapotranspiration in Greece". *Physics and Chemistry of the Earth*, **27**(23-24), 1031-1038.
- B.22. Dalezios, N.R., **A. Loukas**, and D. Bampzelis, (2002). "Universal Kriging of Hail Impact Energy in Greece". *Physics and Chemistry of the Earth*, **27**(23-24), 1039-1043.
- B.23. Dalezios, N.R., **A. Loukas**, and D. Bampzelis, (2002). "Assessment of NDVI and Agrometeorological Indices for Major Crops in Central Greece". *Physics and Chemistry of the Earth*, **27**(23-24), 1025-1029.
- B.24. Dalezios, N.R., **A. Loukas**, and D. Bampzelis, (2002). "The role of Agrometeorological and Agrohydrological Indices in the Phenology of Wheat in Central Greece". *Physics and Chemistry of the Earth*, **27**(23-24), 1019-1023.
- B.25. Domenikiotis C., **A. Loukas**, and N.R. Dalezios, (2003). "The Use of NOAA/AVHRR Satellite Data for the Monitoring and Assessment of Forest Fires and Floods." *Natural Hazards and Earth System Sciences*, **3**(1), 115-128.
- B.26. **Loukas, A.**, L. Vasiliades, and N.R. Dalezios, (2004). "Climate Change Implications on Flood Response of a Mountainous Watershed". *Water Air and Soil Pollution: Focus*, **4**(4-5), 331-347.
- B.27. **Loukas, A.**, and L. Vasiliades, (2004). "Probabilistic Analysis of Drought Spatiotemporal Characteristics in Thessaly region, Greece". *Natural Hazards and Earth System Sciences*, **4**, 719-731.
- B.28. **Loukas, A.**, L. Vasiliades, C. Domenikiotis, and N.R. Dalezios, (2005). "Basin-wide actual evapotranspiration estimation using NOAA/AVHRR satellite data". *Physics and Chemistry of the Earth*, **30**(1), 69-79.
- B.29. **Loukas, A.**, N. Mylopoulos and L. Vasiliades, (2007). "A Modeling System for the Evaluation of Water Resources Management Scenarios in Thessaly, Greece". *Water Resources Management*, **21**(10), 1673-1702.
- B.30. **Loukas, A.**, L. Vasiliades and J. Tzabiras (2007). "Evaluation of Climate Change on Drought Impulses in Thessaly, Greece" *European Water*, **17/18** (1), 17-28.
- B.31. **Loukas, A.**, L. Vasiliades and J. Tzabiras (2008). "Climate Change Effects on Drought Severity" *Advances in Geosciences*, **17**, 23-29.
- B.32. Mylopoulos, N., E. Kolokytha, **A. Loukas** and Y. Mylopoulos (2009). "Agricultural and Water Resources Development in Thessaly, Greece in the framework of new European Union Policies." *International Journal of River Basin Management*, **7**(1), 73-89.
- B.33. Vasiliades, L. and **A. Loukas** (2009). "Hydrological Response to Meteorological Drought Using the Palmer Drought Indices in Thessaly, Greece" *Desalination*, **237** (1-3), 3-21.
- B.34. Vasiliades, L., **A. Loukas** and G. Patsonas (2009). "Evaluation of a Statistical Downscaling Procedure for the Estimation of Climate Change Impacts on Droughts" *Natural Hazards and Earth Systems Sciences*, **9**, 879-894.
- B.35 **A. Loukas** (2010). "Surface water quantity and quality assessment in Pinios River, Thessaly, Greece", *Desalination*, **250**, 266-273.
- B.36. Maris, F., L. Iliadis, S. Tachos, **A. Loukas**, I. Spartali, A. Vassileiou, and E. Pimenidis (2010). "Support Vector Machines-Kernel Algorithms for the Estimation of the Water Supply in Cyprus", *Lecture Notes in Computer Science*, **6353**, 21-29.
- B.37. Laspidou, C.S., S. E. Gialis, **A. Loukas** and A. Kungolos (2011). "Analysis and Evaluation of the Operational Status of Municipal Wastewater Treatment Plants in the Dodecanese Prefecture in Greece" *Water Policy*, **13**(2), 287-297.

B.38. Vasiliades, L., **A. Loukas** and G. Liberis (2011). "A Water Balance Derived Drought Index for Pinios River Basin, Greece." *Water Resources Management*, **25**(4), 1087-1101 (doi: 10.1007/s11269-010-9665-1).

- B.39. Gialis, S.E., **A. Loukas** and C.S. Laspidou (2011). "Theoretical Perspectives and Empirical Facts on Water Sector Privatization: The Greek Case against European and Global Trends." *Water Resources Management*, **25**(6), 1699-1719 (doi: 10.1007/s11269-010-9769-7).
- B.40. Laspidou, C., I. Kakoulidis and **A. Loukas** (2011). "Ecosystem Simulation Modeling of Nitrogen Dynamics in the Restored Lake Karla in Greece." *Desalination and Water Treatment*, **33**(1-3), 61-67 (doi: 10.5004/dwt.2011.2618).
- B.41. Sidiropoulos, P., T. Papadimitriou, Z. Stabouli, **A. Loukas**, N. Mylopoulos and I. Kagalou (2012). "Past, Present and Future Concepts for Conservation of the Re-constructed Lake Karla (Thessaly-Greece)." *Fresenius Environmental Bulletin*, **21**(10A), 3027-3034.
- B.42. Sidiropoulos, P., N. Mylopoulos and **A. Loukas** (2013). "Optimal Management of an Overexploited Aquifer under Climate Change: The Lake Karla Case." *Water Resources Management*, **27**(6), 1635-1649.
- B. 43. **Loukas, A.** and L. Vasiliades (2014). "Streamflow Simulation Methods for Ungauged and Poorly Gauged Watersheds", *Natural Hazards and Earth Systems Science*, **14**, 1641-1661 (doi:10.5194/nhess-14-1641-2014).
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- D.75. Paraskevas, I., L. Vasiliades and **A. Loukas** (2015). "A Generic Framework for the Identification of Hydrological Droughts through the Propagation of Runoff Generation Mechanisms in Semi-Arid Catchments." *EGU General Assembly*, 12-17 April 2015, Vienna, Austria.
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- D.82. Papaioannou, G., **A. Loukas**, L. Vasiliades, and G. Aronica (2016). "Floodplain Mapping Uncertainty Framework for Ungauged Streams." *15<sup>th</sup> EGU Plinius Conference on Mediterranean Risks*, 8-11 June 2016, Giardini-Naxos, Italy.
- D. 83. Kohnová, S., G. Papaioannou, T. Bacigál, J. Szolgay, K. Hlavčová, **A. Loukas**, and R. Výleta (2017). "On the suitability of the copula types for the joint modelling of flood peaks and volumes along the Danube River", *EGU General Assembly*, 23-28 April 2017, Vienna, Austria.
- D. 84. **Loukas, A.**, L. Vasiliades, and T. Karampatakis (2018). "Spatial and Temporal Analysis of Meteorological Droughts in Thessaly Water Department, Greece", *EGU General Assembly*, 8-13 April 2018, Vienna, Austria.

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# E. Publications in Special Issues and Book Chapters

- E.1. Tsakiris, G., **A. Loukas**, D. Pangalou, H.Vangelis, D. Tigkas, G. Rossi, and A. Cancelliere (2007). Drought characterization (Chapter 7). In Drought Management Guidelines Technical Annex (Eds: A. Iglesias, M. Moneo, A. Lopez-Francos). Series B: Etudes et Recherches, No. 58, Options Méditerranéennes, pp. 85-102.
- E.2. Sidiropoulos, E. and **A. Loukas** (2007). "Forest Fires and Floods: Disaster does not Come without a Reason". Polymichano, 20, November 2007, pp. 22-23 (in Greek).
- E.3. Gialis, S., **A. Loukas** and N. Mylopoulos (2009). "The Unequal Geographical Expansion of Water Privatization: Global and European Perspectives". Water Utility Management International, 4 (3), September 2009, pp. 20-23.
- E.4. Tzabiras, J., **A. Loukas**, Ch. Fafoutis, M. Spiliotopoulos, P. Sidiropoulos, K. Kokkinos, L. Vasiliades, G. Papapioannou and N. Mylopoulos (2016). "Development of an Integrated Information System for the Planning and Management of Water Resources in Agricultural Watersheds and Strategic Decision Making". Honorary Collective Book for Aristotle University of Thessaloniki Professor Stavros Giannopoulos (in press).
- E.5. Vasiliades, L., A. Liakopoulos, **A. Loukas** and N. Mylopoulos (2016). "Stochastic Generation of Hydro-meteorological Variables for Hydrological Applications", Honorary Collective Book for Aristotle University of Thessaloniki Professor Stavros Giannopoulos (in press).

# F. Teaching Student Notes

#### **University Student Notes**

- F.1. **Loukas, A.** and Ch. Domenikiotis, "Introduction in Geographical Information Systems", Department of Civil Engineering, University of Thessaly, 120 pages, 1999.
- F.2. **Loukas**, **A.** "Surveying-Chartography", Program of Elective Studies Management of Rural Environment and Natural Resources, University of Thessaly, 150 pages, 2000.
- F.3. **Loukas**, **A.** "Disposal of Waste Water and Water Environment Protection Disposal of Waste Water in the Groundwater", Program of Elective Studies Management of Rural Environment and Natural Resources, University of Thessaly, 42 pages, 2002.
- F.4. **Loukas, A.** "Water Quality in Reservoirs", Department of Civil Engineering, University of Thessaly, 150 pages, 2007.
- F.5. **Loukas A.** and S. Gkialis. "Introduction in Geographical Information Systems: Fundamentals, Data and International Experience", Department of Civil Engineering, University of Thessaly, 148 pages, 2007 (revised in 2010).

#### **Vocational Training Institute Student Notes**

- F.6. Loukas, A. "Digitized and Thematic Chartography", 1st V.T.I. Thessaloniki, 150 pages, 1996.
- F.7. Loukas, A., "Digital Typography", 1st V.T.I. Thessaloniki, 111 pages, 1996.
- F.8. Loukas, A. "Use of Computers", 1st V.T.I. Thessaloniki, 86 pages, 1996.
- F.9. Loukas, A. "Geographical Information Systems", 1st V.T.I. Thessaloniki, 113 pages, 1997.
- F.10. Loukas, A. "Urban and Regional Planning", 1st V.T.I. Thessaloniki, 144 pages, 1997.
- F.11. Loukas, A. "Geography", 1st V.T.I. Thessaloniki, 153 pages, 1997.
- F.12. Loukas, A. "Cadestral", 1st V.T.I. Thessaloniki, 71 pages, 1997.

#### II. 2. CITATIONS

Over 1250 citations (1080 independent citations-h-index=21), as indicated in *Scopus* data base (h-index=23, L-index=45). Over 2450 citations in *Google Scholar* data base (h-index =29, i-10=51).