

CURRICULUM VITAE OF: **Prof. JOHN N. HATZOPOULOS**

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**URL:** [http://www.env.aegean.gr/labs/Remote\\_sensing/EnglishBlock/Remote\\_sensing2.htm](http://www.env.aegean.gr/labs/Remote_sensing/EnglishBlock/Remote_sensing2.htm)

**POSITION**

Professor, of Topographic Mapping (Geospatial Information Science and Technology) at the University of the Aegean, Department of the Environment, Director of the Laboratory of Remote Sensing & GIS.

## EMPLOYMENT

**1989 - Present:** Professor, of Topographic Mapping at the University of the Aegean, Department of the Environment, Greece.

**2011 Spring semester:** Visiting Professor at Chapman University, Orange, CA, USA, Coordinator of an interdisciplinary research team from several US and International Universities, Institutes and Organizations for Fire management projects.

**1995 – Today** Initiator and Director of the Remote Sensing & GIS Laboratory (RSLUA), at the University of the Aegean.

**1998 – 2001** Initiator, chairman and director of studies of the Department of “Environmental Cartography”, at the University of the Aegean.

**Spring/Fall 1987:** On a sabbatical leave

(a) Visiting professor NTUA - Polytechnion, teaching Remote Sensing and Photogrammetry.

(b) Part time professor at the School of Topography of the Army Geographical Service of Greece teaching Photogrammetry and Remote Sensing.

**1984 - 1989:** Professor (with tenure) of Civil and Surveying Engineering at the California State University, Fresno USA.

**1980 - 1984:** Associate Professor of Civil and Surveying Engineering at the California State

University, Fresno USA.

**1978 - 1979:** Part time Instructor of Photogrammetry and Remote Sensing at South Seattle Community College. Seattle Washington.

**1975 - 1979:** Research and Teaching Assistantship Post Graduate Student, worked in several Photogrammetric Research projects at the University of Washington. Seattle Washington.

## EDUCATION

**1976 - 1979** Ph.D. in Civil Engineering (Photogrammetry).University of Washington, Seattle, WA.

**1975 - 1976:** Masters of Science in Civil Engineering (Photogrammetry). University of Washington, Seattle, WA.

**1971:** Diploma in Rural and Surveying Engineering, with honors ranking the first among the graduates. National Technical University of Athens Greece (Polytechnion).

## CERTIFICATES

**1986** Certified Photogrammetrist by the American Society for Photogrammetry and Remote

Sensing.

## **AWARDS**

**1993** “Timis Eneken” Army Geographical Service of Greece.

**1982** Outstanding Professor Award. California State University, Fresno, School of Engineering.

**1971** Hrysovergion Prize as having the highest rank among the graduates. National Technical University of Athens Greece (Polytechnion).

## **PROFESSIONAL EXPERIENCE**

**1989 – Present:** Consultant on Topographic Mapping and Environmental Applications.

**1984 – 1989:** Initiator and vice president of HHM Consulting Engineering, a California based firm developing software for Topographic Mapping.

**1980 - 1989:** Consultant in Photogrammetry and Remote Sensing, GIS, Surveying and Computer Applications. Completed several contracts with various firms and agencies as follows:

**1987 - 1988** Aerial Data Services, Tulsa Oklahoma, installed on a PC-computer system the software package: NAXIAPC for aerial triangulation.

**1986 - 1987** Pacific Aerial Surveys Company (PASCO Corporation) Tokyo Japan Branch, Developed and installed on a PC-AT computer system a complete software package for Analytical Aerial Triangulation with Bundle Block Adjustment. The contract included visit to Tokyo Japan and one week training of the PASCO corporation personnel to operate the software.

**1987** Koogle and Pouls Engineering, Inc. New Mexico, prepared ready for installation software packages

(a) Least squares adjustment of plane networks

(b) Least squares adjustment of level networks.

**1985 - 1986** Greiner Engineering at Phoenix Arizona. Developed a software package PLSUR7 for rigorous least squares adjustment of planimetric networks. Installed the package on a Micro-VAX computer system.

**1984** Pacific Gas and Electric Company (PG and E) San Francisco, California. Completed a technical study "The aerial and Terrestrial Photogrammetry as an Alternative to the Traditional Surveying Methods". Contract No. 2-16-0023-84.

## **TEACHING EXPERIENCE**

**A. Undergraduate program– University of the Aegean (1989-today)**

1. Introduction to Topographic Mapping and GIS, 2. Introduction to Remote Sensing, 3. Environmental Applications of GIS, 4. Environmental Applications of Remote Sensing, 5. Computer Programming (VISUAL BASIC), 6. Independent study research in Remote Sensing
  
7. Independent study research in GIS, 8. Senior projects

**B. Post Graduate program– University of the Aegean (1989-today)**

1. Methods and Techniques (Numerical methods and computer applications in Environmental Studies Research), 2. Sampling and Processing Techniques, 3. Land cover applications of Remote Sensing, 4. Geographic Information Systems (GIS), 5. Geographic Information & Analysis
  
6. Photogrammetry, 7. Applications of Advanced Information Technology for the Environment, 8. Independent study research, 9. Ph.D. projects.

**C. Extended University program(PSE) – University of the Aegean (1999 – 2006)**

- T.1** Introduction to Remote Sensing, **P.1** Introduction to Photogrammetry, **P.2** Digital Photogrammetry,  
**P.3**  
Photogrammetric Production of Manuscript map,  
**P.4.1**  
Non Topographic Photogrammetry, Industrial Applications,  
**P.4.2**  
GPS – An Introduction,  
**E.2.1**  
Computer Programming – VISUAL BASIC,  
**E.2.3**  
Object Oriented Programming,

**E.4.2**

Topographic Drawing,

**E.2.4**

Algorithmic and Mathematical Bases in Geomatics

***D. Surveying Engineering Program - California State University, Fresno (1980-1989)***

1. SE11 Plane Surveying (Basic Surveying),
2. SE21 Photographic Processes in Engineering,
3. SE23 Photogrammetry,
4. SE34 Surveying Computations,
5. EE70 Fortran 77 Computer Programming,
6. SE123 Advanced Photogrammetric Instrumentation,
7. SE125L Advance Photogrammetry Lab,
8. SE126 Map Design and Reproduction (with emphasis on automated mapping, digital terrain modeling and Geographic Information Systems),
9. SE135 Advanced Surveying Computations (advanced application of least-squares, optimum algorithm analysis of applications in surveying and Photogrammetry,
10. SE140 Remote Sensing on Earth's Resources Surveying,
11. SE161 Data collector interface,
12. ENGR205 Computing in Engineering Analysis (Post Graduate course involving numerical methods and computer applications in engineering.

**REVIEWS**

Has been reviewer in the following Journals:

1. Photogrammetric Engineering and Remote Sensing, published by the American Society for Photogrammetry and Remote Sensing.
2. Surveying and Mapping, published by the American Congress on Surveying and Mapping

### **EVALUATOR ON RESEARCH PROJECT PROPOSALS**

Evaluator on the following projects involving Remote Sensing and GIS:

1. General Secretariat on Research and Technology, Greece: ΕΠΕΤ-2, Pythagoras
2. E.U. DG-XII Training and Mobility Marie Curie grants - Earth Sciences
3. INTAS

### **SOCIETIES MEMBER**

1. American Society for Photogrammetry and Remote Sensing ASPRS (since 1976)



2. American Society of Civil Engineers (1985)

3. Technical Chamber of Greece – TEE # 16140, professional Rural and Surveying Engineer (since 1971)

## RECENT PUBLICATIONS

### A. Single author

1. Hatzopoulos J. N., 2002, “Geographic Information Systems (GIS) in Water Management” Proceedings of the 3<sup>rd</sup>

International Forum “Integrated Water Management: The key to Sustainable Water Resources”, March 21 – 22, 2002.

2. Hatzopoulos J. N., 2002, «The automation of the geographical space and the impact to the efficient management», Eupalinos TEE N.E. Aegean No. 9, pp. 4 – 11.

3. Hatzopoulos J. N., 2002, «Fast access to information on the geographical space using Remote Sensing methods», Eupalinos TEE N.E. Aegean No. 10, pp. 30 - 39.

4. Hatzopoulos J. N., 2003, Invited paper, “The Olympic spirit in Education and proposals on the progress and prosperity of modern mankind”, Proceedings of the IDISIEEP International Conference on the “Impact of Olympism on Human Progress”, Thessalonica, Dec. 5 – 7, Greece.

5. Hatzopoulos J. N., 2004, "Geospatial Information & Technology and the Engineer - Photogrammetry" Eupalinos TCG – NE - Aegean No 21, pp. 30 – 37.
  
6. Hatzopoulos J. N., 2005, "Distant learning on Geospatial Information Science and Technology" Proceedings of the ASPRS 2005 Annual Conference March 7-11 2005 Baltimore. Maryland, USA.
  
7. Ioannis (John) N. Hatzopoulos, 2006, "New technologies in geoinformation science and technology for sustainable management and development in the mountainous area of Naxos", proceedings of International Conference on "Sustainable Management and Development of Mountainous and Island Areas" September 29, 30 and October 1, 2006  
,  
Naxos Island, Cyclades, Greece.
  
8. John N. Hatzopoulos, 2007, "Ideals and modern tools to achieve sustainability in higher education", proceedings of International Conference on "Higher Education and the Challenge of Sustainability: Problems, Promises and Good Practice", Orestiada  
-  
Soufli, Prefecture of Evros, Greece, 5  
- 7  
October 2007.
  
9. John N. Hatzopoulos 2008, "New Technologies and Sustainability Methods - the Case of Komiaki of Naxos", presented and to be published in the Proceedings of the Conference: "The Island of Naxos through the Centuries", Komiaki of Naxos, September 4-7, 2008.
  
10. Hatzopoulos, John N., 2009, "The boundaries of right and wrong - Learning and the human brain", ACSM BULLETIN, February 2009, pp. 20 – 22.
  
11. John N. Hatzopoulos, 2010, "Remote sensing systems and methods used to detect sea water pollution", (in Greek). Proceedings of the meeting "The use of remote sensing to monitor

sea water pollution in Eastern Mediterranean”, Febr. 2, University of Athens.

12. John N. Hatzopoulos, 2010, "Education and Neuron Network Based Systems", Presented at the 6th National & International Conference "Systemic Approaches in Social Structures" organized by the Hellenic Society for Systemic Studies (HSSS) & University of the Aegean, Department of Sociology, 23-26 June 2010 Mytilene, Greece.

## **B. Co-author**

13. J. N. Hatzopoulos, E. G. Papapanagiotou, , 2000: “Photogrammetric Sea Wave Mapping for Harbor Design” Proceedings of the ASPRS / 2000Annual Convention Washington DC.

14. Hatzichristofas F. S., Kitsiou D., Hatzopoulos I. & Karydis M., 2000, “Spatial distribution of chlorophyll – a concentrations using satellite data”, Proceedings of the 6<sup>th</sup> Pan-Hellenic Symposium of Oceanography and Fisheries, Chios, Greece, Vol. I.

15. Papapanagiotou E. G., Hatzopoulos J. N., 2000. «Automatic Extraction of 3D Model Coordinates Using Digital Stereo Images», ISPRS International Archives of Photogrammetry and Remote Sensing, XIXth ISPRS Congress, 16-23 July 2000, Amsterdam, The Netherlands, Vol. XXXIII, Part B4/2, pp. 805-812.

16. Hatzopoulos John N., Xoriatelli Xrysomalli, Kallos George, Katsafados Petros, & Papadopoulos Anastasios, 2002, “Monitoring of Desert Dust Aerosols over the Mediterranean from NOAA-AVHRR and Skiron Forecasting System”, Proceedings of the ASPRS - FIG 2002 joint Conference Washington DC.

17. C. Vasilakos, J. Hatzopoulos, K. Kalabokidis, K. Koutsovillis, A. Thomaidou, 2004,

“Classification of the Agricultural Fields by Using Landsat TM and Quick Bird Sensors. The Case Study of olive Trees in Lesvos Island”, Proceedings of the HAICTA 2004, pp. 324 – 332, Thessaloniki Greece.

18. Hatzopoulos John N., S. Karafillis and D. Gitakou, 2005, “Digital elevation data and the use of Archydro to locate places for creation of small dams in the N. E. part of the Greek island of Naxos”, proceedings of 9<sup>th</sup> International Conference on Environmental Science and Technology, Rhodes Island, Greece, September 1-3, 2005.

19. Hatzopoulos John N., Christos Vasilakos, Sevastos Christofidis, Sotoris Htouris, Athina-Christiane Loupou, 2006, “Photogrammetric Mapping of Mediterranean Defense Structures Using an Amateur Digital Camera, GPS and Theodolite”, Proceedings of the ASPRS annual conference, May 1-5, 2006, Reno, Nevada, USA.

20. Vasilakos, C., Kalabokidis, K., Hatzopoulos J., Kallos G., & Matsinos I. (2007). Integrating New Methods and Tools in Fire Danger Rating

.  
*International Journal of Wildland Fire*,  
2007, 16, 306–316, [www.publish.csiro.au/journals/ijwf](http://www.publish.csiro.au/journals/ijwf).

21. Hatzopoulos John N., Xoriatelli Xrysomalli, Kantzas Pantelis, Kallos George, Katsafados P etros, & Spyrou Christos, 2007, ( in Greek ) “ Mapping of Sahara desert dust in the atmosphere using

satellite  
images  
and  
numerical  
weather  
forecasting  
models  
”  
to  
be  
published  
in  
the  
proceedings  
of  
the  
conference  
“  
Remote  
Sensing  
:  
evolution  
and  
applications  
”

Organized by the Technical Chamber of Greece on 22 & 23 of February, 2007.

22. Christakopoulos P., J. Hatzopoulos, D. Paronis, A. Androu, 2007, (in Greek) Determination of the areas to be reforested in the National forest of Sounio by using GIS models and ICONOS satellite images, 13<sup>th</sup> Pan-Hellenic Forest Conference: Development of mountainous areas – Protection of Physical Environment, Proceedings of the Hellenic Society on Forestry, Vol. II, pp. 524 – 532, ISBN 1109-7574.

23. Christos Vasilakos, Kostas Kalabokidis, John Hatzopoulos, Ioannis Matsinos, 2008, “Identifying wildland fire ignition factors through sensitivity analysis of a neural network”, Nat Hazards, DOI 10.1007/s11069-008-9326-3.

24. Christos Vasilakos, Kostas Kalabokidis, John Hatzopoulos, Ioannis Matsinos, 2009, “Identifying wildland fire ignition factors through sensitivity analysis of a neural network”, Nat

Hazards (2009) 50:125–143.

25. John N. Hatzopoulos, Athina Santorinaiou, Dimitra Gitakou, 2010, "Coordination of public policies for flood protection using remote sensing and gis technologies for coastal urban landscapes at water territories". Proceedings of the annual conference of the ASPRS, April 26-30, San Diego, CA.

26. Kalavrouziotis I., A. Filintas, P. Koukoulakis, J. N. Hatzopoulos, 2011, "Application of multicriteria analysis in the management and planning of treated municipal wastewater and sludge reuse in agriculture and land development: the case of Sparta's wastewater treatment plant, Greece", *Fresenius Environmental Bulletin*, Vol. 20, No. 2, pp. 287 - 295.

### C. Books

**1 Hatzopoulos J. N., 2004, "Practical Philosophy of Thought and Virtue" The Bases to Develop a Philosophical Thought by the Ordinary Citizen, ISBN 1-58112-505-4, Universal Publishers, 106 pages.**

<http://www.universal-publishers.com/book.php?method=ISBN&book=1581125054>

**2 Hatzopoulos J. N., 2005, "Education: Time Zero" (in Greek) Kaktos publisher 148 pages, ISBN : 960-382-621-9.**

<http://www.kaktos.gr/default.asp?pid=5&la=1&itm=150>

**3 Hatzopoulos J. N., 2009, "Topografia" 2<sup>nd</sup> Edition, (in Greek) V-Giourdas Publisher, 900 pages. Includes 11 Chapters and two Appendices covering most area of geospatial information and technology. It is accompanied by a CD of educational computer programs written by the author and some of them can be used for professional work.**

<http://www.vgiurdas.gr/giurdasfrontend/index.aspx>

4 Hatzopoulos J. N., 2008, "Topographic Mapping" Covering the wider field of Geospatial Information Science & Technology (GIS&T) such as: Projections – CoGo – Mapping – Map design – Digital Mapping / Gis – DTM/DEM – GPS – Photogrammetry / soft copy – Remote Sensing / Digital image processing – Lidar/lfsar – Least squares adjustment, ISBN 1-58112-988-6, Universal Publishers, 740 pages.

<http://www.universal-publishers.com/book.php?method=ISBN&book=1581129866>

5. Hatzopoulos J. N., 2011, «Geospatial Information Topographic Mapping» (in Greek), Tziolas publisher, ISBN 978-960-418-353-1, 1008 pages.

#### D. Book Chapters

1. Filintas. Ag., Hatzopoulos. J. and Polyzos, S., (2008) **Assessment of surface water springs quality by the use of GIS and geostatistical techniques**, (Chapter 28) in:

##### **Natural**

Resources. (GR) Environment and Development (eds Arabatzis, G. and Polyzos, S.), Tziolas Publications. pp.698-728.

2. John N. Hatzopoulos (2008) "Photogrammetry. Applications in Archaeology" (GR) Pp.235-294, Chapter 9, in "New Technologies in Archaeognostic Sciences", Ioannis Lyritzis Editor, Gutenberg Publishers.

3. John N. Hatzopoulos (2010) "Management of the Natural Environment in Ancient Greece - Agriculture", (GR) Pp 29-46, Evangelos Manolas Editor, "The Natural Environment in Ancient

Greece”, Dept. of Forestry, Environmental Management and Natural Resources, Democritus University of Thrace .