



## **George S. Kochilakis**

FOundation for Research and Technology - Hellas  
Institute of Applied and Computational Mathematics  
Remote Sensing Lab

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### **A. Studies**

- M.Sc. in Computer Vision and Parallel and Distributed Systems from University of Crete (1994)
- B.Sc. in Computer Science from University of Crete (1991)
- B.Sc. in Mathematics from University of Crete (1988)

### **B. Research Interests**

Design and development of:

- a) Web based GIS tools and applications
- b) Algorithms for spatial data processing
- c) Data management systems
- d) Web based tools for data dissemination

### **C. Involved in projects:**

Remote Sensing Lab (Institute of Applied and Computational Mathematics - FORTH) (2011 - ...):

- Urbisphere, funded by the European Research Council (ERC-Synergy) under the European Union's Horizon 2020 research and innovation programme (Grant agreement No. 855005) (2021 - ...)
- CURE (Copernicus for Urban Resilience in Europe), funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 870337 (2020 - 2021)

- URBANFLUXES (URBan ANthropogenic heat FLUX from Earth observation Satellites), funded by the European Union's Horizon 2020 research and innovation programme (2016 - 2019)
- SEN4RUS (exploiting Sentinels for supporting urban planning applications at city and regional levels in Russia), funded by the ERA.Net-RUS Plus (2015 - 2019)
- ECOPOTENTIAL: IMPROVING FUTURE ECOSYSTEM BENEFITS THROUGH EARTH OBSERVATIONS, funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 641762 (2015 - 2019)
- FLIRE (Floods and Fire risk assessment and management), co-financed by "LIFE+ Environment Policy and Governance" financial instrument of the European Union (2012 - 2015)

## Regional Analysis Division (Institute of Applied and Computational Mathematics - FORTH) (1991 - 2011):

- Data processing of the Hellenic Statistical Authority and production of maps  
Project SUME (2011)
- Integrated, Decision Support system with Capabilities of valid and Continuous Real-time information for multiple transportation modes  
Project ENOSIS (2005 - 2006)
- Development of a Web site for the National Statistical Service for disseminating of statistical information about the 2001 census of population  
Project ATHENA 2001. (2003 - 2004)
- Development of a health map for Greece and web site  
Project HEALTH MAP (2001)
- Development of an advanced traveller's information system for the municipality of Chania  
Project OMNI (2000 - 2002)
- Information system for ambulance tracking and route guidance  
Project TRACKING (1999 - 2001)
- Development of a CD-ROM and Web site for the National Statistical Service for disseminating statistical information about the 1991 census of population  
Project ATHINA-91 (1997 - 1998)
- Territorial Multimedia Information System on Industrial Areas  
Project TEMISIA (1997 - 1999)

- Improvement of the efficiency of the prevention and suppression system in Greece  
Project FOREST FIRES (1995 - 1998)
- Development of the Web based Geographic Information System of Athens metropolitan area  
Project Gaea Map Server (1996 - 1997)
- Design and Development of programming tools for web based G.I.S. applications  
Project Gaea Map Server (1996)
- Design and Development of Web based information system for tourism  
Project Web XENIOS (1996)
- Map supported area information service based on GIS  
Project MAGIS (1993 - 1996)
- Development of databanks, information systems for tourism  
Project XENIOS (1991 - 1993)
- Design of databanks with information on the manufacturing companies in Crete  
Project HFAISTOS (1990 - 1992)
- Development of a hypertext system for investment laws  
Project KINHTRIO (1991)

## **D. Publications**

### Conference Abstracts

Poursanidis, D., Kochilakis, G., Chrysoulakis, N., Kotroni, V., Eftychidis, G., Papathanasiou, C. and Mimikou, M., 2016. An EO based DSS for combined flood and fire risk assessment in periurban areas. The case study of the FLIRE DSS. Book of Abstracts of the European Space Agency Living Planet Symposium, held in Prague, Czech Republic, May 9-13.

Poursanidis D., Kochilakis G., Chrysoulakis N., Varella V., Kotroni V., Eftychidis G., Lagouvardos K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2015. FLIRE: an EO-based DSS for combined flood and fire risk assessment in peri-urban areas. In Book of Abstracts of the Mapping Urban Areas from Space (MUAS 2015) Conference, organized by the European Space Agency in Frascati, Italy, November 4 - 5, pp. 42 - 43.

Poursanidis D., Kochilakis G., Chrysoulakis N., Varella V., Kotroni V., Eftychidis G., Lagouvardos K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2015. FLIRE DSS, a web service system for the management of wildfires and floods in urban and periurban areas. In Book of Abstracts of the 13th International Symposium on Geo-disaster Reduction, organized by the International Consortium on Geo-disasters (ICGdR) in Prague, Czech Republic, August 9 - 11.

Poursanidis D., Kochilakis G., Chrysoulakis N., Varella V., Kotroni V., Eftychidis G., Lagouvardos K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2015. Web service systems for the management of natural disasters – The case study of the FLIRE DSS in urban and rural areas. In Book of Abstracts of the SafeChania 2015: “The knowledge triangle in the Civil Protection Service”, held in Chania, Greece, June 10 - 14.

Poursanidis, D., Kochilakis, G., Chrysoulakis, N., Varella, V., Kotroni, V., Eftychidis, G., Lagouvardos, K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2015. Land Surface Temperature and Surface Urban Heat Island characteristics and trends in 17 Mediterranean cities. In Book of Abstracts of the RSCy2015: Third International Conference on Remote Sensing and Geoinformation of Environment, held in Paphos, Cyprus, March 16 - 19.

## Publications in International Peer-reviewed Journals

Kochilakis, G., Poursanidis, D., Chrysoulakis, N., Varella, V., Kotroni, V., Eftychidis, G., Lagouvardos, K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2016. FLIRE DSS: A web tool for the management of floods and wildfires in urban and periurban areas. *Open Geosciences*, 8, 711 - 727.

Kochilakis, G., Poursanidis, D., Chrysoulakis, N., Varella, V., Kotroni, V., Eftychidis, G., Lagouvardos, K., Papathanasiou, C., Karavokyros, G., Aivazoglou, M., Makropoulos, C. and Mimikou, M., 2016. A web based DSS for the management of floods and wildfires (FLIRE) in urban and periurban areas. *Environmental Modelling & Software*, 86, 111 - 115.

## Publications in Conference Proceedings

Nikoloudakis, N., Stagakis, Σ., Mitraka, Z., Kamarianakis, Y., Chrysoulakis, N., Kochilakis, G. and Spyridakis, N., 2018. Estimation of urban air temperature spatial patterns based on sensors network observations and satellite derived predictors. *Proc. SPIE 10793, Remote Sensing Technologies and Applications in Urban Environments III*, 1079309, held in Berlin, Germany, September 10-13.

Poursanidis, D., Kochilakis, G., Chrysoulakis, N., Varella, V., Kotroni, V., Eftychidis, G. and Lagouvardos, K., 2014. Web service tools in the era of forest fire management and elimination. In: *Proceedings of SPIE Remote Sensing 2014. Proc. SPIE 9245*, Earth

Resources and Environmental Remote Sensing/GIS Applications V, 924513;  
doi:10.1117/12.2066474.

Poursanidis D., Kochilakis G., Chrysoulakis N., Varella V., Kotroni V., Eftychidis G. and Lagouvardos K., 2014. A web service for the assessment of the behavior and the spread of a forest fire. In: Kanakidou, M., Mihalopoulos, N. and Nastos, P. (Eds): e-book of Contributions of the 12th International Conference of Meteorology, Climatolog and Physics of the Atmosphere (COMECAP 2014), organized by University of Crete, Hellenic Meteorological Society and Mariolopoulos - Kanaginis Foundation for Environmental Sciences in Heraklion on May 28 - 31, Vol. 3, pp. 80 - 84.

Prastacos, P., Chrysoulakis, N. and Kochilakis, G., 2012. Spatial metrics for Greek cities using land cover information from the Urban Atlas. Proceedings of the AGILE'2012 International Conference on Geographic Information Science: Science Multidisciplinary Research on Geographical Information in Europe and Beyond, Avignon, April, 24-27, 2012 ISBN: 978-90-816960-0-5.

Prastacos, P., Chrysoulakis, N. and Kochilakis, G., 2011. Urban Atlas, land use modelling and spatial metric techniques. 51st European Congress of the Regional Science Association International. European Regional Science Association. Barcelona, Spain, August 30 - September 3.

Vazouras, C., Kogxylakis, G. and Prastacos, P., 2002. Health Map: A GIS system for monitoring public health and decision making. CD ROM Proceedings of Second Hellenic Conference of GIS applications held in Athens, February 28-March 1, 2002, HellasGIS, (in Greek).

Prastacos, P. and Kogxylakis, G., 1999. System "Phaethon" for the analysis of forest fires in Greece from 1983 to 1992. CD ROM Proceedings of First Hellenic Conference of GIS Applications held in Athens on December 9-10, 1999, HellasGIS (in Greek).

Stamou, N., Kalabokidis, K., Konstantinidis, P., Fotiou, S., Christodoulou, A., Blioumis, V., Prastacos, P., Diamandakis, M., and Kogxylakis, G., 1998. Improving the efficiency of the wildland fire prevention and suppression system in Greece, in Proceedings 3rd International Conference on Forest Fire Research and 14th Conference on Fire and Forest Meteorology, held in Luso-Coimbra, Portugal on 16-20 November 1998, Luso-Coimbra, Portugal. Published by ADAI, University of Coimbra, Portugal, pp. 203-221.