

PERSONAL STATUS

Surname: Giordano

Name: Raffaele

Birth Date: May 22rd 1974

Citizenship: Italian

Civil status: Married

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Foreign language spoken: English.

Present position:

From November 2005 researcher with temporary position at the Water Research Institute of the National Research Council of Italy (IRSA-CNR).

Academic record:

2005 Ph.D. in Civil Engineering, Polytechnic of Bari, Italy, Title of dissertation: A community Decision Support System to cope with complex problems: the logistic of Industrial Districts.

2001 B. Sc. Eng. (Hons), Civil Engineering, Polytechnic of Bari, Italy.

Research:

2000-2002 Cooperation with the research staff of Dept. of Architecture and Urban Planning of Polytechnic of Bari within the “Concerted Action on Agriculture and Urbanization in the Mediterranean Region: Enabling policies for Sustainable Use of Soil and Water”.

2002 Cooperation with the research staff of Dept. of Architecture and Urban Planning of Polytechnic of Bari concerning the research project “Spatial Planning and Knowledge engineering”, coordinated by dr. Lidia Diappi.

2002 Cooperation with the research staff of Dept. of Architecture and Urban Planning of Polytechnic of Bari, and with the IRIS – CNR concerning the research project “Protection and valorisation of the Ofanto Valley environment”.

2002 Cooperation with the research staff of Dept. of Architecture and Urban Planning of Polytechnic of Bari concerning the research project “Innovation of regional spaces: histories and futures of communities, environments and technologies along the Adriatic coasts”.

2003 Study leave within the Ph.D. course at the University of Ottawa – School of Management . During this period he worked with Prof. Gregory Kersten on the topic “On-line Community Creation and Community Decision Support System”.

2002 – 2003 Research Grant from the IRSA-CNR for studies on the hydrogeological planning and soil protection. During this period he cooperated with the research staff from the IRSA-CNR to elaborate the Regional Plan Against Drought and Desertification for the Basilicata region (South of Italy). In particular, spatial data on climate and landscape features were analysed in order to recognise more vulnerable areas.

2004 – 2008 Collaboration with the research staff from the IRSA-CNR at the EU-funded NeWater Project - “New approaches to sustainable and adaptive water management in times of increasing uncertainty”, coordinated by University of Osnabrueck. The research activities concerned the development of a Community – based monitoring system to involve local communities in soil salinisation monitoring in the Amudarya river basin (Uzbekistan).

200 – 2008 Collaboration with the research staff from the IRSA-CNR at the EU-funded AquaStress Project, coordinated by IRSA - CNR. The research activities concerned the development of Participatory Monitoring and Evaluation program to assess the effectiveness of water stress mitigation actions.

2006 – 2007 Participation at the research activities within the project “Sustainable strategies for the ecological protection and improvement of wetlands and riparian zones in the Candelaro river basin (South of Italy)” in collaboration with the Polytechnic of Bari and the Mediterranean Agronomic Institute (CIHEAM – IAM-B).

2007 – 2008 Collaboration with the research staff from the CIHEAM - Bari at the EU-funded project Scenes, “Water Scenarios for Europe and for Neighbouring States”. The activities carried out in this project concerned the development of Fuzzy Cognitive Map to represent the stakeholders understanding of the water management system and the main water stress related problems. The case study was the Candelaro river basin (South of Italy).

2009 Participation in a National Research Project (PRIN-2007) by the Italian Ministry for Education and Research (MIUR). The research project aims to develop new methodologies for drought monitoring and for managing water supply systems under water scarcity conditions. The activities currently carried out within this project concern the development of a multi – agent model to support drought monitor taking into account the stakeholders' perception of the phenomena. The case study is the Trasimeno Lake in Umbria region. The project is coordinated by prof. Cancellieri from University of Catania. The participation is undertaken within the research unit of the IRSA - CNR.

2009. Collaboration with the research staff from the IRSA-CNR at the research project involving the Dept. of Civil protection of the Italian National Government. The activities carried out in this project concern the definition of methods and tools to assess the vulnerability of water supply infrastructures adopting a multi – agent perspective.

Main publications:

2004. Giordano, R., Passarella, G., Uricchio, V.F., Vurro, M., “A Community Decision Support System to Enhance Stakeholders’ Participation in Water Resources Management”. Proceedings of the International Environmental Modelling and Software Society Conference - Complexity and Integrated Resources Management, Osnabrueck, 14-17 June 2004.

2004. Uricchio V.F., Giordano R., Lopez N., “A Fuzzy Expert System for groundwater pollution risk evaluation”, Journal of Environmental Management, 73, 189-197.

2005. Giordano, R., Passarella, G., Uricchio, V.F., Vurro, M., “Fuzzy Cognitive Maps for Issue Identification in a Water Resources Conflict Resolution System”, *Physics and Chemistry of the Earth*, 30, 463-469.
2006. Giordano, R., Vurro, M., Uricchio, V.F., “Monitoring information system to support integrated decision-making”. In “The adaptiveness of IWRM; analysing european iwrM research”. (Timmermann J.G., Sendzimir J., Moeltgen j., eds.), London - ed. IWA publishing.
2007. Giordano, R., Passarella, G., Uricchio, V.F., Vurro, M., “Integrating conflict analysis and consensus reaching in a Decision Support System for water resource management”, *Journal of Environmental Management*, 84, 213-228.
2008. Giordano, R., Liersch, S., Vurro, M, Uricchio, V.F., “The integration of Expert and Stakeholder Cognitive Model to support Environmental Monitoring”. Proceedings of the “International Congress on Environmental Modelling and Software - Integrating Sciences and Information Technology for Environmental Assessment and Decision Making”, Barcelona, 7 – 10 July 2008.
2009. Giordano, R., Passarella, G. Conflict analysis using fuzzy decision support system: a case study in Apulia region, Italy. Accepted for publication in Papathanasiou, J., Manos, B., Papanizos, K., Matsatsinis, N. (eds). *Decision support systems in agriculture, food and the environment: trends, applications and advances*, IGI Global, Hershey, USA.
2009. Giordano, R., Liersch, S., Vurro, M. Integrating local and technical knowledge to support soil salinity monitoring in the Amudarya river basin. Accepted by *Journal of Environmental Management*