# Artificial Intelligence Applications in Environmental Protection Workshop

25 April 2009

collocated with

## *5th IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI-2009)*    http://delab.csd.auth.gr/aiai2009

*23-25 April, Thessaloniki, Greece*

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# Program

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| 11:30-11:50 | **Invited Talk** <br> Artificial Intelligence Applications in the Atmospheric Environment: Status and Future Trends <br> *Kostas D. Karatzas* |

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| **11:50-13:00** | Session 1: **Applications of machine learning techniques in environmental protection** |

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| 11:50-12:08 | **Hydrological Neural Modeling aided by Support Vector Machines** <br> *Lazaros Iliadis, Stefanos Spartalis* |
| 12:08-12:26 | **Use of AI Techniques for Residential Fire Detection in Wireless Sensor Networks** <br> *Majid Bahrepour, Nirvana Meratnia, Paul J. M. Havinga* |
| 12:26-12:43 | **Estimation of the permeability of granular soils using neuro-fuzzy system** <br> *A. Sezer , A.B. Goktepe , S. Altun* |
| 12:43-13:00 | **A Data Mining System for Estimating a Largesize Matrix for the Environmental Accounting** <br> *Ting Yu, Manfred Lenzen, Blanca Gallego, John Debenham* |

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| 13:00-14:30 | **Lunch** (AIAI 2009) |

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| **14:30-16:00** | Session 2: **Decision support and knowledge-based systems for environmental protection** |

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| 14:30-14:48 | **Autonomous Inspection Of Complex Environments by Means of Semantic Techniques** <br><br> *M. Ziegenmeyer, K. Uhl, J.M. Zöllner, R. Dillmann* |
| 14:48-15:06 | **Abductive Reasoning in Environmental Decision Support Systems** <br> *Franz Wotawa, Ignasi Rodriguez-Roda, Joaquim Comas* |
| 15:06-15:24 | **Supporting Decision Making in Maritime Environmental Protection with a Knowledge-based Education and Awareness Approach** <br> *Konstantinos Kotis, Andreas Papasalouros, Nikitas Nikitakos* |
| 15:24-15:42 | **Validation of a knowledge-based risk model for biological foaming in anaerobic digestion simulation** <br> *J. Dalmau, J. Comas, I. Rodríguez-Roda, E. Latrille, J.P. Steyer* |
| 15:42-16:00 | **An Environmental Diagnosis Expert System** <br> *M. Oprea, D. Dunea* |