



## **Vassilis NIKOLOPOULOS**

IT & Energy Governance Expert

Personal Site -> <http://www.medialab.ntua.gr/vnikolop>

R&D Group -> <http://www.intelen.gr>

**Profile** **Vassilis NIKOLOPOULOS** was born in 1975 in Athens and graduated from the French School "Lycee Leonin". He graduated in 2000 as Valedictorian of 3 Engineering departments (Civil, Electrical, Mechanical) from the Polytechnic School of Dundee University (Scotland), with a 1st class 4year Scottish honours in Electrical Engineering, having gained 2 class medals, British Association scholarship, Duff & Garland Prize and the IEE prize 2000. He also obtained a 1st class MSc and Diploma in Control from Imperial College, certificates in Management and Marketing from LSE and after preparing the French classe preparatoire (Maths Sup-Spe) and succeeding in entrance exams (concours PI) he entered Ecole Polytechnique of Paris (promotion X99), from where he obtained the "Majeures d'Ingenieur de l' Ecole polytechnique" in applied mathematics and informatics, with mention "Honorable". He gained scholarship from the "Fondation de l'Ecole Polytechnique" due to high grades in maths and physics. Currently he is a PhD candidate at Multimedia Technology Laboratory of the National Technical University of Athens, working for a PhD in the domain of Optimal Energy Knowledge Engineering. His research objective is to create a new mathematical philosophy, based on differential topology, in order to describe and model Energy knowledge. As a result, current web-based Energy Information Systems (ie. EMIR system) will be able to model, retrieve and analyze Energy stream data over Internet and dynamic profiles, correlating environmental parameters, in order to extract useful knowledge for Energy savings and CO2 control. He has also worked for big multinational companies as an IT Consultant, Innovative Business Development Engineer and Project manager in big EU commercial and R&D projects (FP6, FP7, eTen, etc). He is a member of the Technical Chamber of Greece, IEE, BCS, InstMC, SEE, French Mathematical Society, IFAC, IEEE, SEPE, founding member of AFREL (Association Franco-Hellenique in Greece), member of the Greek-French Chamber of Commerce and holds two official patents in Energy algorithms. He has numerous Conference, Journal and Technical publications. His patented method (EMIR EnergyRank) won the 2nd Greek National Innovation Prize from OTENET in 2007. It has to do with on-line ADSL-based analysis and automatic ranking of energy customers, based on remote LBS (Location-based Services).

He is also the founder of the spin-off R&D Group INTELEN (<http://www.intelen.gr>) a strong research team that will lead and create advanced Energy Web Services for the Greek and European sector. A result from this Group is the <http://www.plugme.eu> portal, in order to manage energy and environmental data in an intelligent web-based way (PlugME@EMIR Sustenergy Project)

## Experience

- [R&D Innovation Manager @ Intellisolutions SA \(2006 - now\)](#)
- [Responsible for IT and Energy governance](#)
- **Project E.M.I.R.** : energy management and Intelligent Reporting information system. Analysis, conception and design of a web-based Energy Decision support system for energy analysis and cost management for the Greek sector. Matlab-based core intelligence (MSP) and JSP/Servlet container environment (Tomcat). Dynamic DSS portal for energy data mining and energy semantic-based reasoning. Submitted and protected with two Patent Numbers with no 20060100249 and 20060100287 at OBI. Second National Prize of Innovation 2006 contest of OTENET gaining 25.000 Euros and innovation dissemination opportunities in International level. Design of national and international dissemination strategy for promotion and business development. **Founder of spin-off group INTELEN** focusing on intelligent web-based Energy Information Systems and energy knowledge management. Creation and design of the first Energy Portal of optimal energy management for medium and low voltage customers
- [IT consultant @ European Dynamics SA \(2005 - 2006\)](#)
- [Responsible for IT procedures and R&D projects of the Company](#)
- IT Infrastructure Library specialist and IT Service Management responsible. Knowledge of **ITIL**, **Prince2** and **CoBIT** specifications and procedures for optimal IT management & support. Creation and organization of the e-Business Division's Helpdesk, serving five concurrent framework projects (CMDDB). Extensive knowledge of COCOMO II method for effective project organization and optimal base-effort calculation. Took part in the tendering procedure of EU research-based projects (IST - FP6 - PASR - eTEN)
- **Project SEIBUD** : The project concerns the maintenance and further development of the SEI-BUD that is the editorial and publishing system for budget documents of the EU. Took part in the project management, the tracking activities procedure, quality control and the provision of status and technical reports. The project was a J2EE based project, with SOFTWARE AG (Belgium), which involved XML tools (Xalan, Xerces), Open source software (JBoss, Tomcat, Eclipse), SUN Solaris, Oracle 9i, JBoss, Tomcat. Attended various meetings in Brussels and Luxembourg
- **Project eRMIONE** : An e-learning Resource Management internet-based environment, delivering on-line services for specific educational programs on European cultural heritage domain. Took part in the overall project and technical management, quality control, e-learning interoperability analysis based on Ontology and Reusable Learning Objects, LMS design and analysis, the tracking activities procedure, quality control and the preparation of various project deliverables and work package tasks. Attended numerous meetings and conferences in Riga, Vienna, Brussels, Leuven, Madrid and Barcelona
- **Project EUR-Lex** : The purpose of EUR-Lex was to keep the public informed of the legislation in force in the European Union and of new legislative acts as they are issued. The service is currently in production, is updated daily, and has a very high availability rate. Took part as a deputy Project Manager in this framework contract, in the Communication and co-ordination, performance management and the

continuous improvement of the system. Attended numerous meetings and training in Luxembourg. The project is a J2EE-based system with Oracle Data guard, BEA Weblogic application server and Eversuite.

- [PhD Candidate & Research Associate of Medialab - NTUA \(2004\)](#)
- Postgraduate courses on Data Mining, OLAP, ROLAP, Communications Technology and Information Retrieval, Algorithms and HCI. Applied research in Data Base optimization, intelligent CRM systems, **web-based Energy Information Systems (energy portals, prediction analysis)**, Knowledge Engineering and knowledge grids from data banks, RDBM and ERD design, OLAP, distributed semantic control

#### Honors & Prizes

- Receive full scholarship from the Fondation de l'Ecole Polytechnique due to top grades in Maths and Physics
- Selected and admitted from the competitive international program for top European and overseas students to study in Polytechnique. Admitted through Pr. International (Concours) with a strict selection from top international students worldwide
- Finished the final specialization year with a high average "Honorable"
- Completed the research stage with the highest mark "A"
- National Prize for top performance "**IEE PRIZE 2000**" of IEE
- Exempt grades (1997, 1998) in first 2 years (core subjects in maths, physics, and engineering) due to high performance in the 1st and 2nd year class exams with exceptional grades
- Class Medal (1999) for best 3rd year student (rank 1st)
- British Association Prize for best 3rd year student
- British Association Scholarship for the Science Festival (Sheffield 99)
- Duff & Garland Prize (£100) for top academic performance
- Class Medal (2000) for best 4th year student (rank 1st)
- Prize of Institution of Electrical Engineers (IEE) in 2000 for best graduate Electrical Engineer and for best Honours project
- Offered a PhD position with scholarship at Cambridge University, domain of Robust Control under Prof. Glover, which I turned out...
- Admitted for an MS and PhD at Massachusetts Institute of Technology (MIT) dept. of EECS, which I turned out for personal reasons...
- Second National Prize of Innovation from OTENET in 2007
- Ranked the best new entry Researcher for 2007 in Greece from the STATUS Greek Magazine
- Candidate for the Sustenergy Award 2007
- Creator of the <http://www.plugme.eu> portal for energy and environmental knowledge management

#### Selected Publications

1. Technical Chamber of Greece Bulletin, No 2309, 6 September 2004  
"HAARP, Psychotronics and Weather Manipulation"
2. Technical Chamber of Greece Bulletin, No 2338, 4 April 2005

*"Technology Applications for Environmental purposes"*

3. On-line MAG 2005 of Computer Engineers Bulletin, No 7, 1 November 2005  
*"Web-based Intelligence: A new approach..."*
4. Bulletin of Electrical and Mechanical Engineers Bulletin, No 382, 1 December 2005 - *"EMIR - Energy Management and Intelligent Reporting"*
5. N.E.O. Magazine - New Economy Observer Bulletin of February 2006  
*"Future Knowledge Management trends"*
6. White Research Paper, Medialab NTUA  
*"A new approach for optimal knowledge extraction from heterogeneous web sources, using hypercubic clustering"*  
National Technical University of Athens, Medialab NTUA, 2005
7. Technical Chamber of Greece (TEE) Research Conference 2006, Athens  
*"A Web-based system for optimal Energy Sources Management, through Ontologies and Semantic Clustering"*
8. *"A Web-based Information System for Optimal Energy Sources Management through Ontologies and Hypercubic Clustering"*, Vassilis Nikolopoulos, Vassili Loumos, Energy 2006 International Conference, Athens
9. *"A Web-based Information System for Optimal Energy Management"*, Vassilis Nikolopoulos, Vassili Loumos, T.E.E. Energy Minimization Research Day 2006, Academy of Sciences
10. *"Web-based energy information system for optimal bi-directional behavioural control of various energy customers using ADSL hypercubic clustering and internet services (emir system)"*, **Vassilis Nikolopoulos**, Vassili Loumos, Power Systems Modeling Conference 2007, ([PSM 2007](#)), June in Athens GREECE
11. *"A complete Ontological Model for effective web-based Energy Management through a Hypercubic Semantic Grid"*, Vassilis Nikolopoulos, Vassili Loumos, 2nd Panhellenic Conference of [PSDMH](#), May 2007, Athens GREECE
12. Holder of Patent application with ref.no. **20060100249** with title : *A web-based Energy Search Machine and Decision Support System for optimal management and cost estimation of energy sources.*
13. Holder of Patent application with ref.no. **20060100287** with title : *A web-based system to implement energy transactions and energy load commerce for home users through automatic energy management and energy credit-coupons*

**Memberships**

- Technical Chamber of Greece (TEE)
- Hellenic Society of Computer Engineers & Informatics
- French-Hellenic Chamber of Commerce and Industry
- Institution of Electrical Engineers (IEE)
- Institute of Measurement and Control (IMC)
- British Computer Society (BCS)
- Institute of Electrical and Electronics Engineers (IEEE)
- French Mathematical Society (SMF)
- Association Française d'Intelligence Artificielle (AFIA)
- Société de l'Électricité et de l'Électronique de France
- Member of the EU Sustener Campaign
- Member of the Manage Energy Network EU

**Personal Statement** *To propose new EU Best Practices and new National Standards for Energy Governance and combine IT with Energy in order to provide adaptive Energy Services and efficient Environmental control of the planet and the CO2*



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