

Dr. Maria Morfoulaki  
Transportation Engineer

## **Detailed Curriculum Vitae**

Thessaloniki  
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## 1 PERSONAL DATA

Date of Birth: 12 April 1971  
Profession: Civil engineer, Transportation  
Current Position: Center for research and Technology Hellas/Hellenic Institute of transport (CERTH/HIT)  
Application Scientist B'  
Nationality: Greek  
Marital Status: Married with two children  
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Foreign Languages: English (Certificate of Proficiency in English-University of Michigan, July 2006), German (Grundstufe Zertifikat Deutsch-Goethe Institut, September 1997)  
Computer Skills:

### MICROSOFT OFFICE

Holder Certificate ECDL (July 2006)

- Microsoft Word,
- Microsoft Excel,
- Internet Explorer
- Outlook Express.

Excellent handling Power Point.

### EMME2

Expert user, especially in the simulation, design and analysis of urban areas and in the development of models for traffic prediction.

### SPSS

Excellent Knowledge of all the basic tools, relating to the statistical processing and analysis of a large amount of data.

## 2 STUDIES

November 1995 Graduation from the Department of Civil Engineering, of the Polytechnic School of AUTH.

- November 2004      Acquisition of her Ph.d in the Department of Civil Engineering of AUTH Title of PHD: “Exploring the interaction between quality indicators and operational efficiency in public transport system”
- July 2010            Acquisition of her Postgraduate Diploma in the Department of Civil Engineering, University of Thessaly in Engineering and Simulation Systems. The title of her Thesis is “Analysis and forecasting of traffic volumes using advanced methods of statistical analysis, modeling and simulation”

### **3      ACADEMIC – EDUCATIONAL ACTIVITIES**

#### **March 2010-August 2010**

Six-month contract with the University of Thessaly for the teaching of the course ' Traffic Engineering ' in the Department of civil engineering.

#### **September 2009 - February 2010**

Six-month contract with the University of Thessaly for the teaching of the course ' Transportation Planning' in the Department of Civil Engineering.

#### **March 2009 - August 2009**

Six-month contract with the University of Thessaly for the teaching of the course ' Road Safety' in the Department of Civil Engineering.

#### **February 2007 - March 2008**

Trainer in seven seminars of the educational programme "Traffic Control in Urban Areas" organized by the National Institute of Training for engineers of the public sector in Athens, Thessaloniki, Patra, Larisa and Kozani. Subject of the seminar «Work Zone Safety:The educational Project PREVENT '.

### **4      RESEARCH - SCIENTIFIC WORK**

From September 2001 until today, Mrs Morfoulaki is working as a scientific partner (present position: Specific Functional Scientist, grade B ') of the Hellenic Institute of Transport (HIT) of the National Centre for Research and Technological Development (CERTH). CERTH is currently supervised by the General Secretariat for research and Technology (GSRT) of the Ministry of Lifelong Education, Learning and Religious Affairs. The basic research and scientific work of hers has focused on:

#### **4.1      Research Programs and Services Providing Projets**

Since the beginning of her employment at the Institute of Transport, Mrs Morfoulaki has participated in many research programs and projects that provided services, in

particular in the field of Public Transport-Urban mobility, Traffic Engineering, Road Safety and Transport Planning. The most important research programs and projects that she has participated to, together with her role in the implementation of the project are listed below :

1. DEVELOP A TRAINING PROGRAMME TO IMPROVE WORK ZONE SAFETY, PREVENT, LEONARDO DA VINCI PROGRAMME, 2003-2005. General Coordinator of the project in order to develop a training programme for the enhancement of road safety in road work zones.
2. SCIENTIFIC FORUM ON TRANSPORT FORECAST VALIDATION AND POLICY ASSESSMENT, (TRANSFORUM), 6F.P, E.U. Programme, 2003-2005. Participation in the evaluation of research projects that had developed methodologies for assessing transport policy.
3. "INTEGRATED SYSTEM FOR THE QUALITY ASSESSMENT OF THE OASA PASSENGER SERVICES", OASA, 2004. Participation in the project's core study team, focusing on the creation of the methodological framework for assessing indicators of quality of OASA system.
4. "MANAGEMENT AND MAINTENANCE OF THE THREE YEARS DURATION INTEGRATED CONTROL SYSTEM OF THE PASSENGER TRANSPORT OF OSE", OSE, 2004-2006. Participation in the core study team and more specific in the organisation and planning of the data collection and in the creation of the methodological framework for assessing the operational indicators system.
5. "FEASIBILITY STUDY OF THESSALONIKI METRO LINES ", ATTIKO METRO, March 2005. Participation in the study team and in particular to the assessment of the demand for the new transport mode using specialised traffic planning and analysis models.
6. " CORRIDOR FEASIBILITY STUDY OF THE VERTICAL SIATISTA - KRISTALOPIGI'", EGNATIA ΟΔΟΣ Α.Ε, June 2005. Responsible for the development of the Traffic Model for traffic prediction in the Egnatia highway.
7. "INTEGRATED SYSTEM FOR THE QUALITY ASSESSMENT OF THE SASTH PASSENGER SERVICES", SASTH, May 2005. Participation in the project's core study team, focusing on the creation of the methodological framework for assessing indicators of quality for the public transport system of Thessaloniki.
8. IMPLEMENTING CHANGE IN THE EUROPEAN RAILWAY SYSTEM, REORIENT, 6F.P, E.U. Programme, 2005-2007. Responsible for the collection and analysis of data relating to the implementation of the specifications for interoperability of the rail network in Greece, Bulgaria, Romania.
9. " ITS CONSULTING SERVICES PROVISION FOR THE DEVELOPMENT OF A TRAFFIC MANAGEMENT SYSTEM IN TRIKALA'", Municipality of Trikala, December 2005. Participation in the recording of the existing infrastructure and traffic conditions in the municipality and the formulation of key proposals for upgrading them by using new technologies of information and traffic management.
10. "DEVELOPMENT OF AN INTEGRATED SYSTEM IN ORDER TO PROVIDE SCHEDULING AND SUPPLY PLANNING SERVICES", GSRT, AKMON program, 2005-2007. Participation in the creation of urban routing algorithms for all means of transport on the metropolitan area of Thessaloniki.
11. " DEVELOPMENT OF AN INTERNET PORTAL OF HIT IN ORDER TO ORGANIZE AND PROVIDE TRANSPORTATION DATA AND SERVICES", GSRT, ANTAGONISTIKOTITA

- program, 2005-2007. Participation in the management of the project and responsible for the development of the National Transport Data Observatory.
12. “DANGEROUS GOODS TRANSPORTATION ROUTING, MONITORING AND ENFORCEMENT - GOODROUTE”, 7th F.P, E.U. Programme, 2006-2008. Participation in the development of the transport model for assigning the Heavy Vehicle volumes to the network.
  13. “NEW MOBILITY SCENERIES IN THE FREE TRADE ZONE IN MEDITERRANEAN BASIN, FREEMED”, INTERREG III B-ARCHIMED, 2006-2007. Participation in the investigation of the influence of the free trade zones and the corresponding agreements in the freight volumes of Greece.
  14. “TOWARDS A POLYCENTRIC METROPOLITAN EUROPE- POLYMETREX PLUS”, INTERREG IIIC, 2006-2007. Support the work of the Organizations of Environmental Protection of Athens and Thessaloniki regarding the collection and analysis of data concerning growth and interregional relations between the two cities and the other cities of the Eastern Europe.
  15. “EXPANDING PUBLIC TRANSPORT NETWORK OF THESSALONIKI”, TEDK, 2007-2008. Participation to the surveys regarding the recording of the existing problems and to the development and evaluation of the alternative scenarios for the extension of OASTH lines.
  16. “EXPLORING THE ACCESIBILITY OF THE NEW INTERURBAN TERMINAL OF HALKIDIKI IN THESSALONIKI”, Greek Ministry of Transport, 2008. Responsible for the management and elaboration of the project with prime responsibility the collection and evaluation of data regarding the requirements of passengers and the development and evaluation of alternative scenarios of the passenger terminals offered services.
  17. “SHOW ME HOW SLOW - SHLOW”, FP7, 2008-2010. Scientific responsible of the project for the HIT. Participation in the training activities concerning the effect of speed on road safety, as well as in the pilot application held in Greece.
  18. “DEVELOPMENT OF THE SPECIFICATIONS FOR IMPLEMENTED THE THSSALONIKI PUBLIC TRANSPORT STRATEGIC PLAN”, Greek Ministry of Transport, 2009. Technical Coordinator of the project and responsible for creating the specifications for all major investigations should be prepared for the growth of the public transport system of Thessaloniki strategic plan.
  19. «INTERGATED MOBILITY MASTER PLAN OF NICOSIA», Cyprus Ministry of Transport, 2009. In charge of collecting and processing data for capturing the current situation and the requirements of passengers and operators. Participation in the development of the alternative scenarios.
  20. HERMES «HIGH EFFICIENT AND RELIABLE ARRANGEMENTS FOR CROSSMODAL TRANSPORT», 7 F.P. 2010-2012. Scientific responsible of the project for HIT. Responsible for reviewing previous best practices as regards combined passenger transport in Europe, and for exploring the problems of combined passenger trips at the port of Patras.
  21. «TRAFFIC VOLULME FORECASTS IN THE NETWORK OF ATHENS USING TIME SERIES MODELS» MLS A.E, 2010. Scientific responsible of the project. Responsible for the development of a methodology for forecasting road traffic data (speed, load) using time series models.
  22. «INTELLIGENT URBAN MOBILITY MANAGEMENT AND TRAFFIC CONTROL SYSTEM FOR THE IMPROVEMENT OF THE URBAN ENVIRONMENT QUALITY IN THE CENTRAL

AREA OF THESSALONIKI'S AGGLOMERATION», Co-funding EEA & National Funding, 2010. Responsible for the technical support of the project and the development of the urban Mobility center. Responsible for the traffic model development in order to predict the traffic volumes in the study area.

## 5 PROFESSIONAL ACTIVITIES

From September 1995 until September of 1997, Mrs Morfoulaki worked as a research associate in the company TRIAS Studies S.A. and from October 1997 to September 2001 in the Transeuropean Consultants of Thessaloniki S.A. (TRUTH), in research and development programmes in the field of transport.

Indicatively reported the following projects that she has participated:

- ◆ EUROBUS/POPINS.-A PASSENGER INFORMATION SYSTEM AND OTHER TELEMATICS APPLICATIONS FOR URBAN BUS OPERATIONS, DRIVE II E.U. Programme, 1992-1995.
- ◆ INFOPOLIS - ADVANCED PASSENGER INFORMATION SYSTEMS IN EUROPEAN CITIES, Telematics and Applications E.U. Programme, 1996-97.
- ◆ MUSIC MANAGEMENT OF TRAFFIC USING TRAFFIC FLOW CONTROL AND OTHER MEASURES, Transport Research and Development E.U. Programme, 1996-1999. .
- ◆ PARKING MASTER PLAN OF THESSALONIKI, PHASE B', Municipality of Thessaloniki, 1997-1998.
- ◆ EXPANDING THE PUBLIC TRANSPORT NETWORK OF THESSALONIKI TO THE NEW KAPODISTRIAN MUNICIPALITIES, 2000.
- ◆ "MASTER PLAN OF THE GREATER AREA OF THESSALONIKI - PHASE B'", ORTHE, August 1997.
- ◆ "FEASIBILITY STUDY FOR THE NEW SEA MOTORWAY «ADTIATIKI-IONION"», Greek Ministry of Shipping, December 1999.
- ◆ "EXTENTION OF THE CONTRUCT FOR THE MASTER PLAN OF THE GREATER AREA OF THESSALONIKI, PHASE B'", ORTHE, August 2000.
- ◆ "PREPERATION OF ADDITIONAL STUDIES FOR FEASIBILITY STUDY OF THE SEA TRANSPORT IN THESSALONIKI", RCM, December 2003.

## **6 ΕΠΙΣΤΗΜΟΝΙΚΕΣ ΕΡΓΑΣΙΕΣ**

### **6.1 Publications in International Scientific journals**

1. M. Morfoulaki, J. Tyrinopoulos, G. Aifandopoulou, "ESTIMATION OF SATISFIED CUSTOMERS IN PUBLIC TRANSPORT SYSTEMS: A NEW METHODOLOGICAL APPROACH" Περιοδικό Journal of the Transportation Research Forum, Volume 46, Number 1, Spring 2007.
2. Maria Morfoulaki, Panos Papaioannou and Christos Pirgidis, "ACCIDENT PREDICTION AT RAILWAY GRADE CROSSINGS APPLICATION TO THE GREEK RAILWAY NETWORK", Περιοδικό Rail Engineering International, Σεπτέμβριος 1994.

### **6.2 Publications of international and National Conferences after evaluation**

1. Maria Morfoulaki, Panos Papaioannou and Christos Pirgidis, "Accident Prediction at Railway Grade Crossings Application to the Greek Railway Network", Hellenic Conference of Road Safety, Volos 1996
2. G.Aifantopoulou, M. Morfoulaki, E. Nathanail, A. Papagiannakis, "Thessaloniki Traffic Planning Model", European EMME/2 Conference, Barcelona, June 1999.
3. M. Morfoulaki, A. Papagiannakis, "Use of EMME/2 in Corridor Feasibility Study of the Vertical Axis 59 from Egnatia Highway to Thessaloniki Airport" , European EMME/2 Conference, Thessaloniki, June 2001.
4. M. Boile, M. Morfoulaki, F. Mikiki, "Develop a Training Program to Improve Work Zone Safety", 2nd International Conference for Transportation Research in Greece, March 2004.
5. Panos Papaioannou, Maria Morfoulaki, George Giannopoulos "PUBLIC TRANSPORT CUSTOMER SATISFACTION IN THESSALONIKI", 9th International Scientific Conference MOBILITA '04, Bratislava, May 6 - 7, 2004.
6. George Giannopoulos, Panos Papaioannou, Maria Morfoulaki, " QUALITY AND BENCHMARKING OF PUBLIC TRANSPORT SYSTEMS: CUSTOMER SATISFACTION SURVEY IN THESSALONIKI ", 10th WCTR, July 2004.
7. Prof. Panos Papaioannou, Dr Alexandros Deloukas, Dr Maria Morfoulaki, Dora Zissopoulou, Maria Peleka "THESSALONIKI METRO: TRAFFIC AND OPERATION ASPECTS - SOCIOECONOMIC IMPACTS", 2nd National Conference for the Rail Transport Development.
8. Foteini Mikiki, Dr. Maria Morfoulaki "Work Zone Safety: The training program PREVENT" 3d Hellenic Road Safety Conference, October 2005.
9. Dr. Georgia Aifadopoulou, Dr. Maria Morfoulaki, "DEVELOPMENT OF A PORTAL FOR TRANSPORT DATA MANAGEMENT AND PROCESSING IN HIT - THE IMPLEMENTATION OF A CONCEPT" 3d International Conference for Transportation Research in Greece, May 2006.
10. Dr. Georgia Aifadopoulou, Dr. Maria Morfoulaki, Dimitrios Margaritis, "TRAINING AND CERTIFICATION OF TRUCK DRIVERS IN GREECE" 3d International Conference for Transportation Research in Greece, May 2006.



11. M. Morfoulaki, G. Aifandopoulou, E. Chrisohoou, E. Gagatsi, "EVALUATION OF EURO-MEDITERRANEAN FREE TRADE AGREEMENTS (EMFTA) EFFECTS ON THE DEVELOPMENT OF FREIGHT FLOWS OF GREECE INTO THE MEDITERRANEAN" 4th International Conference for Transportation Research in Greece, May 2008.
12. P.Papaioannou, M. Morfoulaki, F. Mikiki, "EXPLORING ITS EFFECTS ON CUSTOMER SATISFACTION AND TRAVEL BEHAVIOUR", 10th International Conference on Applications of Advanced Technologies in Transportation, May 2008.
13. M. Morfoulaki, E. Chrysohoou, J. Salanova, " DEVELOPMENT OF A FORECASTING METHODOLOGY FOR ROAD NETWORK TRAFFIC DATA ANALYSIS USING TIMES SERIES " 5th International Conference for Transportation Research in Greece, September 2010.
14. M. Morfoulaki, E. Mitsakis, "THE CONTRIBUTION OF TH URBAN MOBILITY MANAGEMENT IN THE TRIP PLANNING AND THE ENVIRONMENTAL UPGRADE" 5th International Conference for Transportation Research in Greece, September 2010.

### **6.3 Evaluator in Scientific Conferences**

1. 5th International Conference for Transportation Research in Greece, Volos, 1-2 October 2010
2. 4th International Conference for Transportation Research in Greece, Athens, 28-30 May 2008

## **7 ADDITIONAL INFORMATION AND ACTIVITIES**

### **7.1 Member in Scientific Associations**

- Hellenic Institute of Transportation Engineers
- Greek Technical Chamber
- Hellenic Association of Civil Engineers.

### **7.2 Scientific Fields of Expertise in the Transport Domain**

The 14 years of studies and academic and research activity have given to Dr. Morfoulaki know-how, specialized in the following scientific fields:

- ✓ Public Transport Systems
- ✓ Urban Mobility
- ✓ Traffic Engineering
- ✓ Transport Planning
- ✓ Road Safety
- ✓ Transportation Systems Simulation and Analysis