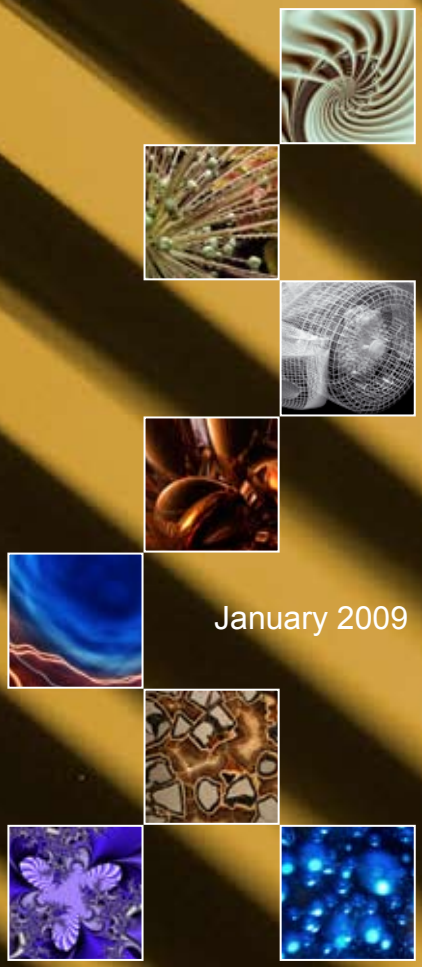
# Hellenic Institute of Transport annual report 2008

Centre for Research and Technology Hellas
CE.R.T.H.

Hellenic Institute of Transport
H.I.T.



January 2009

**HELLENIC INSTITUTE OF TRANSPORT**
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# NOTE BY THE INSTITUTE DIRECTOR



One more annual report, the one for 2008, reaches the many friends and associates of the Hellenic Institute of Transport (H.I.T.) of the National Center for Research and Technology of Greece (CE.R.T.H.). In 2008, like in previous years, H.I.T. has continued to grow. It extended its research infrastructures and started the construction of its new building for offices and laboratories in Thessaloniki. It also continued its upward trend with regard to research projects which, as you will see in the following pages, reached nearly 60 active projects for the whole 2008. At the same time, HIT has also expanded geographically by opening a second office in Athens, while in mid-September 2008 it got permission by the Governing Board of CE.R.T.H. to open a new branch for the region of Thessaly with offices in the city of Volos.

In 2008, HIT has continued to enrich and expand its Internet based portal offering data and services in the field of Transport in Greece. The portal, known as HITPORTAL- PORTAL FOR DATA AND SERVICES IN THE FIELD OF TRANSPORT IN GREECE www.hitportal.gr offers a central internet based and operated platform for Transport data and transport related software to all interested users, as well as a test bed for testing new systems and software packages using Greek transport data. This portal is considered by many as a unique tool for gathering, analyzing, and presenting data in the field of Transport, intended to form a much needed support for transport research as well as transport operations in Greece.

H.I.T. has also continued in 2008 its comprehensive drives for public awareness in transport related issues like road safety, traffic education, and the like. We have cooperated with many local traffic police departments and mass media and organized special events like Conferences or Seminars. At the same time the H.I.T. undertook (through one of its senior researchers) the chair of FERSI the European Organisation of Road Safety Institutes, as well as the chair of the Transport Advisory Group of DGs RTD and TREN of the EU that advises these two DGs of the Commission, on transport research issues. It also undertook the Editor-in-chief position of the new scientific magazine European Transport Research Review – ETRR issued by Springer.

I would like to thank most warmly the scientific and administrative personnel of H.I.T. as well as our external collaborators and experts, because it is due to their work that makes the Institute an internationally recognized and respected Organization, in its field, and produces its rapid growth.

*Prof. G.A. Giannopoulos*
*Director, Hellenic Institute of Transport*

annual report 2008

# TABLE OF CONTENTS


**a. FOREWORD** ..... 3

**b. THE HELLENIC INSTITUTE OF TRANSPORT** ..... 4

Legal Status / Headquarters ..... 4

H.I.T.'s Mission ..... 4

**c. THE INSTITUTE'S STRUCTURE** ..... 5

Organization Chart ..... 5

H.I.T. Management ..... 6

Human Resources in 2008 ..... 6

**d. RESEARCH INFRASTRUCTURES 2008** ..... 8

Premises ..... 8

Mobile Lab for Environmental and Traffic Measurement ..... 8

H.I.T. Portal: Data Management and Process ..... 8

MobiNET - Mobility Center Network ..... 9

Research Vehicle for Driving Behaviour ..... 10

Mobile Driving Simulator under the influence of alcohol abuse ..... 10

Virtual Reality System ..... 10

Driving Simulator ..... 11

Research Vehicles ..... 11

Electrically Assisted Bicycles ..... 11

Electrical Mopeds ..... 11

Hybrid Vehicle Toyota Prius ..... 11

**e. SCIENTIFIC WORK** ..... 12

Research Projects ..... 12

2008 Publications by H.I.T.'s Scientists ..... 17

**f. EDUCATIONAL WORK** ..... 19

H.I.T.'s Involvement in the «Planning, Organising and Managing Transportation Systems» Postgraduated Studies Programme ..... 19

**g. FINANCIAL REPORT FOR 2008** ..... 20

**h. INTERNATIONAL PARTNERSHIPS AND PROMOTIONAL ACTIVITIES** ..... 21

International Partnership ..... 21

Cooperations in Greece ..... 22

Other Promotional and Public Awareness Activities ..... 23

Organization of Conferences & Seminars ..... 23

Cooperation with Scientific Journals ..... 24

Participation in Exhibitions and Events ..... 24

H.I.T. in the Media (Selected Interviews and Presentations) ..... 25



# FOREWORD

Transport research in Greece, as in many other sectors, relies on strong research institutions that will be able to catalyse and coordinate research activity, assuming appropriate infrastructure is in place.

In 2008, the Hellenic Institute of Transport (H.I.T.) was active in the areas below:

- Applications of new technologies in Transport, as part of developing the «Intelligent Transport Systems» (ITS) of the future;
- Promotion of innovative practices in co-modal transport;
- Road safety improvement research and applications, with activities concerning drivers, pedestrians and vehicles;
- Urban and interurban Public Transit improvement research and applications;
- Information systems applications for making travelling easier for passengers, particularly with multi-modal transport;
- Optimisations in terminal station access for passengers.

During 2008, HIT managed to build up its research infrastructure by completing the implementation of its online portal PORTAL FOR DATA AND SERVICES IN THE FIELD OF TRANSPORT IN GREECE - HITPORTAL (www.hitportal.gr), a multi-faceted system, pioneering by Greek and European standards, for providing Transport-related information, data and services. At the same time, HIT obtained European Economic Area (EEA) funding in order to develop an up-to-date traffic management centre and urban mobility center for the city of Thessaloniki in cooperation with main stakeholders of the Perfecture and other scientific Institutes.

In terms of overall output, 2008 saw increased activity across the Institute's sectors and subsectors, with ongoing research projects from earlier years, as well as the initiation of a significant number of new projects. The Institute's total research work was marginally higher in quantity compared to 2007, with 56 active research projects.

In parallel with doing research and running research projects, H.I.T.'s scientists published a total of 35 papers in scientific journals, conferences or seminars in 2008. Additionally, they promoted the Intistute's work with a series of interviews or presentations to the Press and the Media.

At the same time, H.I.T. continued to participate in purely educational work in 2008, through its ongoing involvement in the Aristotle University of Thessaloniki's cross-discipline *«Planning, Organising and Managing Transport Systems»* Postgraduate Studies Programme (Msc).

Construction of H.I.T.'s new office and laboratory building is already in progress on a site right next to CE.R.T.H.'s (Greek: E.K.E.T.A.) in Thessaloniki's Technology Park, in the 6th klm of the Thessaloniki – Thermi Rd. Completion is expected by mid-2009.

With these new offices, H.I.T. will have the space it needs for housing its Departments and for even more activity thereof across the board.



# THE HELLENIC INSTITUTE OF TRANSPORT



*Figure 1: The Thessaloniki Offices of H.I.T.*

## Legal Status/Headquarters

The Hellenic Institute of Transport (Greek: *Ellinikó Institoúto Metaforón - I.MET.*) was established with Presidential Decree 77/2000. That same Decree unified 4 Institutes, namely the Chemical Process Engineering Research Institute, the Informatics and Telematics Institute, the Institute of Agrobiotechnology, and the Transport Institute, into a single not-for-profit private-status legal entity named «Centre for Research and Technology Hellas - CE.R.T.H.» (Greek: *Ethnikó Kéntro Éreynas kai Technologikís Anáptyxis - E.K.E.T.A.*). CE.R.T.H./H.I.T. is under the supervision of the Ministry for Development's General Secretariat for Research and Technology.

H.I.T.'s headquarters and main buildings are in Thessaloniki, comprising office space and laboratories, located within the Thessaloniki Technology Park. Completion of the Insitute's new buildings is expected in 2009, to cater for its ever-growing requirements for staff and infrastructure.

H.I.T.'s Athens branch has been operating since 2004 with offices originally in the Alimos area and (since mid-2007) at 287, Mesogeion Str., Athens. The new H.I.T. Thessaly Region Branch is under construction in the city of Volos.

## H.I.T.'s Mission

H.I.T.'s mission is to provide research and research support services, as well as to support policymaking and decision-making in matters of land, maritime, air and intermodal transport operation, organisation, planning, standardisation, economic analysis, management, mode technology, and impact thereof, in Greece. Also included is the provision of expert research services in the above areas to third parties. H.I.T. may provide private organisations with scientific support and documentation in these areas.



*Figure 2: The CE.R.T.H. Building Complex in Thessaloniki.*

Additionally, H.I.T. collaborates with established Transport institutions abroad and represents Greece in relevant fora.

Specifically, the Hellenic Institute of Transport undertakes the following activities:

- Research projects or specialized studies (basic and applied research).
- Organising and running a Transport documentation centre, focusing on documenting the Institute's research activities and publications in Greece.
- Formulating and proposing standards and model processes within its relevant field, without supplanting the role of standards production bodies.
- Implementing and maintaining databases and data within Transport.
- Translating and publishing international Transport-related regulations.
- Disseminating the results of research carried out in the Institute to Greek organisations, especially in the Public Sector.
- Promoting bilateral or multilateral partnerships with similar research institutes and organisations in Greece and abroad, particularly in Southeastern Europe.
- Representing Greece on international bodies and committees on the fields of its expertise.
- Organising conferences and international events.
- Organising programmes of professional development and training for specific user groups in the area of Transport, in fair competition on the market.
- Sharing in the quality control of services offered in Transport, and issuing certificates thereof.
- Publishing its research results in Greek- or international journals and conferences.
- Producing regular reports (annual or biennial) documenting developments in Greece's overall system of transport, as well as its various subsystems (road, rail, maritime, air).

# THE INSTITUTE'S STRUCTURE

## Organization Chart

As of 31 December 2008, HIT's organisational structure (including the new Thessaly Region Branch) and staff are shown on Figure 3:

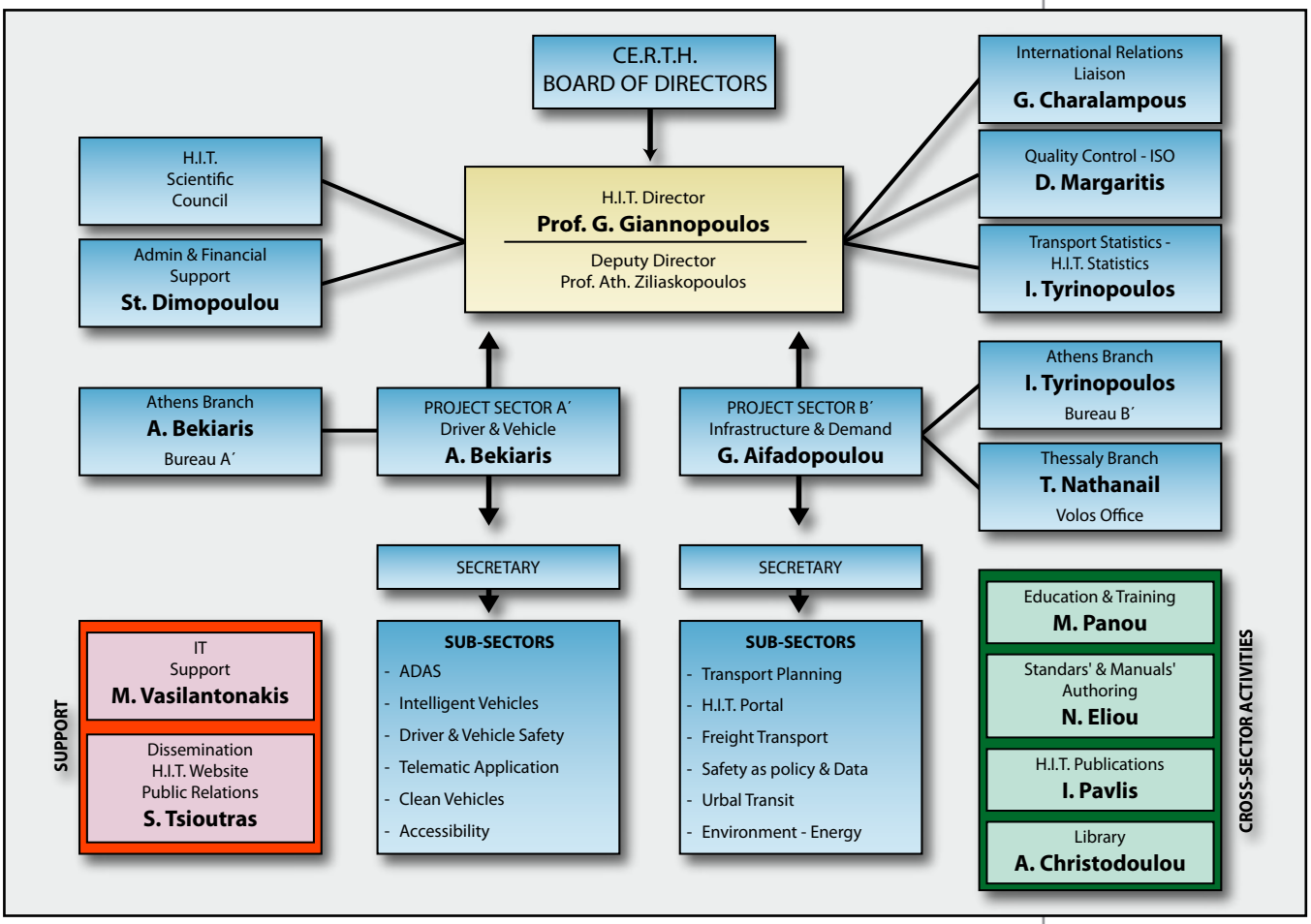



*Figure 3: HIT organization chart*

As shown on the Chart, H.I.T.'s organisational structure consists of two vertical Project Sectors (a unit equivalent to a General Directorate) which carry out all research projects, and of a series of «horizontal sectors» also known as «actions», equivalent to «Bureaus». The two Project Sectors are:

- Project Sector A: ***Driver & Vehicle***, Director: Dr. E. Bekiaris.
- Project Sector B: ***Infrastructure & Demand,*** Director: Dr. G. Aifadopoulou.

*IT* and *Dissemination & Public Relations* are horizontal support departments, a fact reflecting the emphasis placed on these two horizontal activities.

The remaining bureaus supporting the Institute's activities are those concerned with:

- Staff Education & Training;
- H.I.T. Publications;
- Authoring standards and model processes for Transport in Greece, and
- Library.

H.I.T. is led by its Director, who is elected following an international open call for candidacies and selection by an 11-member Committee appointed by the government's General Secretariat for Research

and Technology, upon a National Council for Research and Technology (Greek: ESET) recommendation. The Director of the Hellenic Institute of Transport is supported by:

- the *Scientific Council*, whose operation is provided for by law and which is primarily a strategic body for science policymaking;
- a *Deputy Director* appointed by CE.R.T.H.'s Board upon the Director's recommendation; and
- three Bureaus, one each for *International Relations Liaison, Quality Control* (of the Institute's Departments) and Statistics, the latter also responsible for in-house statistics on the scientific staff's performance.

## H.I.T. Management

The Institute is managed by its **Director** (or, when required, the Deputy Director). Specifically, the Director is responsible for creating the Institute's research and development programme, executing recruitment decisions, appointing staff and, generally, staff status and disciplinary matters, preparing the budget, annual report and balance statement, and presenting these to the Scientific Council, and finally for all other matters pertaining to the Institute's management and operations.

The Director is elected following an open call for candidates for the post, submission of candidacies and assessment thereof by an independent 5-member committee. He/she is formally appointed for a five-year period by decision of the Minister for Development and in accordance with the procedure desribed in Law no. 1514/85, article 11, paragraphs 3, 4 and 5. This procedure was first enacted in 2003. Prof. G. Giannopoulos has been HIT's Director since the Institute started off.

In case of post vacancy, Director absence or inability, the Director's duties are perfomed by the Deputy Director, appointed by CE.R.T.H.'s Board and qualified to Institute Researcher Grade A* as a minimum. Prof. Ath. Ziliaskopoulos of the University of Thessaly was H.I.T.'s Deputy Director for 2008.

The **Institute's Scientific Council** (Greek: ESI) has as members at least five scientists who must be Institute Researchers Grade A or B, or lower in seniority only in case of insufficient Grade A or B Researchers. ESI members are elected by secret ballot among all Institute Researchers. According to the law, the Scientific Council is responsible for approving the Institute's budget, annual report and balance statement presented by the Director, advising on scientific policy matters and Institute objectives, and assisting the Director in discharging his/her responsibilities, particularly in creating the Institute's research and development programme, monitoring that programme and reporting on it to the Minister for Development as dictated by law.

The members of H.I.T.'s Scientific Council for 2008 were:

- Prof. G. Giannopoulos, Director;
- Prof. Ath. Ziliaskopoulos, Deputy Director;
- Dr. E. Bekiaris, Researcher Grade A, Director of Research, H.I.T.;
- Dr. Maria Boile, Researcher Grade A;
- Dr. Georgia Aifadopoulou, Researcher Grade B;
- Dr. Ioannis Tyrinopoulos, Researcher Grade C;
- Dr. Mary Panou, Researcher Grade C;
- Dr Ioannis Pavlis, Researcher Grade D.

As of 2008, by decision of H.I.T. Director Prof. G. Giannopoulos, all other H.I.T. Researchers or Special Operational Scientists (Greek: ELE) are also invited to and attend ESI meetings, without the right to vote.

## Human Resources in 2008

In 2008, H.I.T. employed:

- Elected research staff (Researchers at Grades A, B, C and D);
- Management and technical scientists on fixed-term contracts;
- External scientists or experts on a project contract basis.

Staff in the former two groups, together with selected key contractors for 2008, are listed below:

* *Equivalent to Principal Researcher. (translator's note)*

## A. Management - Researchers

- Prof. G. Giannopoulos, Civil & Transport Engineer, H.I.T. Director
- Ass't Prof. A. Ziliaskopoulos, Civil & Transport Engineer, H.I.T. Deputy Director
- Dr. E. Bekiaris, Mechanical Engineer, Researcher A
- Dr. Maria Boile, Civil & Transport Engineer, Researcher A.
- Dr. G. Aifadopoulou, Civil & Transport Engineer, Researcher B.
- Dr. G. Tyrinopoulos, Transport Engineer, Researcher C.
- Dr. M. Morfoulaki, Civil & Transport Engineer, Special Operational Scientist (ELE) B.
- Dr. M. Panou, Computer & Electronics Engineer, Researcher C.
- Dr. I. Pavlis, Production Engineering & Management, Researcher D.

## B. Technical and magement scientific staff (On Fixed-Term Contracts - in alphabetical order)

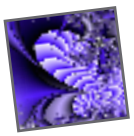
- K. Agnantis, BSc in Computer Programming
- M. B. Vasilantonakis, Integrated Control Systems & Computer Engineer, MSc in Computer Systems & Networks
- A. Vataki, BA in Psychology
- O. Vlachou, BA in Geography
- E. Gagatsi, BEng in Civil Engineering, MSc in Transport Engineering
- E. Gaitanidou, Civil Engineer, MSc in Transport Engineering
- P. Georgopoulos, MSc in Mechanical Engineering
- M. Gemou, Mechanical and Aeronautics Engineer
- St. Dimopoulou, Lawyer
- K. Kalogirou, Software Engineer, MSc in Digital Signal Processing
- A. Kortsari, BEng in Civil Engineering
- P. Liapis, BA in Economics (Alimos branch, for part of 2008)
- K. Linaras, MSc in Computer Engineering (Contractor Researcher)
- I. Mantadis, BA in Economics
- D. Margaritis, Vehicle Mechanic
- E. Mitsakis, BEng in Civil Engineering
- A. Mourouzis, BSc in Software Engineering
- St. Nikolaou, Software Developer
- V. Papadimitropoulou, Business Management
- E. Portouli, BEng in Mechanical Engineer
- P. Spanidis, BSc in Sofware Engineering, MSc in IT and Data Communications, Analyst/Programmer
- Aik. Touliou, BA in Psychology
- G. Tsakou, Research Project Analyst, Philologist-Linguist
- T. Tsaprounis, BSc in Computer Programming
- A. Tsioutras, BEng in Civil Engineering, MSc in Environmental Studies & Transport Engineering
- E. Chalkia, BEng in Civil Engineering
- G. Charalampous, BEng in Civil Engineering, MSc in Transport Engineering
- E. Chrysochoou, BA in Mathematics, MSc in Statistics & Operational Research

## C. SECRETARIAL STAFF (in alphabetical order)

- S. Adam, Athens (Alimou) Branch Secretary (for part of 2008)
- M. Karatza, Athens (Alimou) Branch Secretary (for part of 2008)
- A. Kostouli, Project Sector A Secretary (Thessaloniki)
- A. Christodoulou, Management Secretary / Project Sector B Secretary (Thessaloniki).

In addition to the above, 46 scientists were also employed as project contractors during 2008 (including 6 academic staff from other Greek Universities).

In total, HIT's scientific staff for 2008 numbered 82 people, regardless of contract type.



# RESEARCH INFRASTRUCTURES 2008



*Figure 4: Virtual representation of CE.R.T.H.'s future premises with H.I.T.'s building in the front.*



*Figure 5: Virtual representation of CE.R.T.H.'s future premises (the first being H.I.T.'s building).*







## Premises

H.I.T. is housed in different buildings in Athens and Thessaloniki, but its headquarters are housed in the 6th km of the Charilaou - Thermi Road in the so-called "Thomas building", which near the Technology Park, in Thessaloniki. However, the current premises of headquarters is considered to be temporary, and the necessary procedures (reinforced by the Centre for Research and Technology Hellas) for the construction of the new building facilities in a 20 acre plot of land have already been initiated. Specifically, the area purchased is next to the premises of the Technological Park.

Complete erection of the new building facilities will definitely comprise offices of a total surface area of approximately 1500m$^2$, along with underground state-of-the-art laboratories of a surface area of 1000m$^2$, while the eventual long-term objective involves the acquisition of the necessary outdoor space of a surface area of approximately 6000m$^2$, with the intention of developing facilities of circulation simulators, as well as appropriate installations related to the control of the manufacture materials used for infrastructures of transports.

## Mobile Lab for Environmental and Traffic Measurement

H.I.T., in order to promote transportation / environmental research in Greece and to support the relevant authorities, has created a Mobile Lab for Environmental and Traffic Measurements. It has been financially supported by PEP of Central Macedonia and by the support program for Competitiveness of EPAN, in the framework of the initiative for "Excellence within the technological research". The Lab has the goal to provide the tools for collecting and analyzing data, which will assist actions for the reduction of environmental pollution and traffic related problems

The Mobile Lab includes a number of scientific environmental and traffic measurement instruments, as well as the proper supportive equipment. More specifically:

- A static base which carries HORIBA CO, $SO_2$, NO, $NO_2$, $O_3$ & $NO_x$ analysts on air, a sampling and a calibration HORIBA system
- Air humidity and temperature measurement sensor
- Wind-gauge and wind-vane sensor
- Road profile recording georadar of high quality and analysis, with a 900MHz sensor
- Traffic parameters measurement sensors and traffic volume measurement radar
- Digital noise measurement instrument Class 1 IEC 61672
- Processing and tele-transmission system for the data collected by the environmental instruments and traffic measurements
- Power supply generator of alternative current (measurements can be done during Lab motion)
- The Lab can perform the following:
- Gas emission – pollution measurements
- Weather condition measurements (temperature, humidity, wind direction and speed)
- Sub-surface profile plotting
- Traffic parameters registration and traffic volume measurements
- Noise measurements.

## H.I.T. Portal: Data Management and Process

The H.I.T. TransPortal is a web based portal which provides Transport Data Management and Process services, supporting thus the Transport Research Community in Greece.

The H.I.T. TransPortal, currently hosted by the Hellenic Institute of Transport, addresses identified gaps in the collection and administering of data vital to the modern management of Transportation Systems, listed below:

- Fragmented and not sufficiently up-to-date information on the development and management of transportation systems in the country.

- Lack of knowledge and skill in the use of specialized Information and Communication Technologies (ICT) tools for the planning, management and control of Traffic and Transportation Systems by the relevant authorities.
- Slow adaptation to and adoption of innovative solutions and research results by the transportation sector.

The H.I.T. TransPortal, manages raw and ICT processed data to offer the following services to the users:

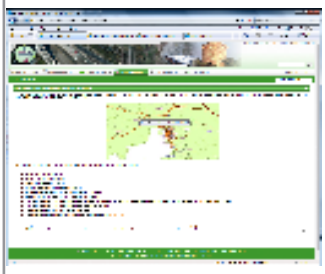
- Observatory
- Routing
- Transport planning and simulation tools
- Infomobility Centre
- Innovation Incubation
- Test Platform

The H.I.T. TransPortal, is installed on hi-tech hardware including Powerful Servers, Distributed Systems, Desktop and Mobile Workstations, Mobile Phones, Palmtops, GPS Receivers. Data and applications are protected with the aid of critical modern network security procedures.

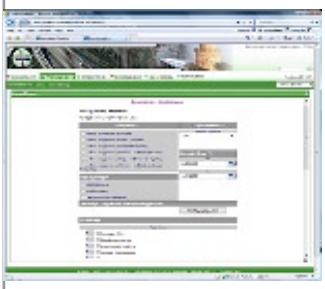
The equipment run under the Windows and Linux operating systems, with each workstation being dedicated to a specific operational task, using the relevant set of specialized ICT tools to process raw data in order to provide the users with the requested information or specific service.

The H.I.T. TransPortal, uses state-of-the-art databases to store and distribute the traffic and transportation data. These databases are organized, depending on the data they manage, either by service function or by type of data and, when required, they interface with other database services such as the GIS server and the Web server.

The server systems and applications administration is performed by expert server and network administration tools and is under constant scrutiny so as to ensure satisfactory and uninterrupted operation of both systems and applications.







## MobiNET – Mobility Center Network

In the context of the European project «MobiNET - Mobility Center Network», H.I.T. has designed, developed and hosts the on-line services of the first Mobility Center Network in Greece, which operates in the Municipality of Kalamaria. The services developed include:

- Information on stops, time-schedules and itineraries of the municipal public transport service of Kalamaria
- Information on time-schedules and itineraries for KTEL (suburban public transport)
- Combined guidance with public transport from/to each direction, stop or other point of interest
- Information on points of interest via web GIS
- Information on mobility impaired persons' trips
- Information on ticket prices
- Information on ticket selling counters
- On-line communication and complaint form

The Center's e-services are hosted by the HITPORTAL infrastructures.



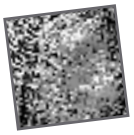


## Research Vehicle for Driving Behaviour

Within the framework of the operational programme COMPETITIVENESS of the Ministry of Development, Measure 3.3, Action line 3.3.1, Act 3.3.1.2 "Excellence in Research and Technological Organizations supervised by the Greek General Secretariat for Research and Development" a Centre of Excellence on driving behavior issues was created within the Hellenic Institute of Transport. The Centre is equipped with a research vehicle able to record and analyze on-line driving behavioral parameters as well as able to simulate advanced driving assistance systems, a semi-dynamic driving simulator and a virtual reality system with software specific for transport applications.

The research vehicle is a Lancia Thesis 2.4 20V Emblema model. It is equipped as follows:

- Front obstacle detection radar, providing information about front obstacles (distance, relative speed).
- Lane recognition camera, providing information about vehicle position relevant to the lane.





*The touch screen.*



*The central mirror.*



*The eyelid sensor.*

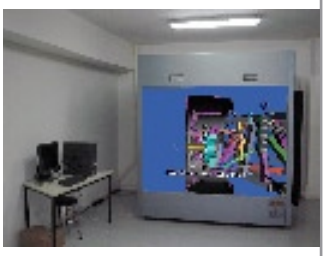
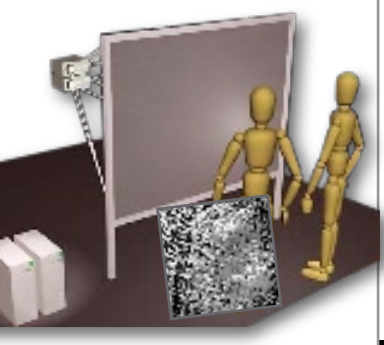


*Figure 7: General overview of the H.I.T. virtual reality system.*



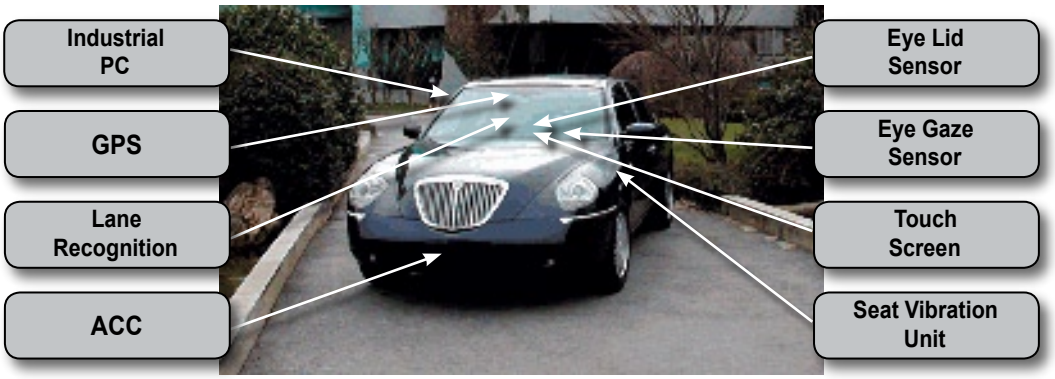



*Figure 6: Overview of the research vehicle for driving behaviour.*

- GPS.
- Eyelid sensor and software, providing information regarding eyelid movements, which are useful to estimate level of driver's hypovigilance.
- Eye gaze sensor and software, providing information on the focus of attention of the driver at each specific time moment.
- Electronic unit, which collects information from the vehicle electronic system and exports them to the central PC for processing. Such information include: acceleration pedal position, brake cylinder pressure, vehicle longitudinal speed and acceleration, yaw rate, steering wheel angle, lights status, wipers status, external temperature, etc.
- Main PC to record and store all information as well as on-line process it.
- Touch screen integrated in the vehicle dashboard driven by the main PC, so as to provide warnings to the driver.
- Special warning lights integrated in the central mirror and seat vibration unit, both driven by the main PC so as to provide adequate warnings to the driver.

Using the systems of this research vehicle, the functionalities of several advanced driving assistance systems can be simulated as well as their HMI. In this way, it is possible to perform ergonomic studies for such systems as well as studies on user acceptance. Furthermore, the driving behavior can be analyzed in detail and safety studies regarding vehicle and road interventions can be conducted.

## Mobile Driving Simulator under the influence of alcohol abuse

Within the framework of BOB-Campaign in Greece (Alcohol - Not Tonight - I am Driving), HIT has also equipped a mini-van with a «drunk driving» simulator, the combination of which will demonstrate the direct negative drawbacks of driving under the influence of alcohol, allowing HIT to promote systematically a pioneering, for the Greek standards, educational campaign.

## Virtual Reality System

CE.R.T.H./H.I.T. possesses a Virtual Reality System, which is in fact a single wall cave system, and is generally intended for the realization of designing, performing structural studies, and ergonomic or other safety assessment analyses that require the simulation of a series of various procedures. Towards the achievement of such goals, the use of the software package "Virtual Anthropos" and its subsystems are required.

For the implementation of the above research scopes, the VR system has adapted a number of software tools, which give the potential for the visualization and manipulation of 2D and 3D CAD files in immersive environment, which includes cuts, disassemblies, measurements, rotations, lightning, etc. in real time. This application framework may prove to be useful for engineers during the phase of design and revision and moreover for the products marketing and exploitation, by means of their demonstration.

By means of the use of human models and their multiple parameterizations, there is also the potential for Human Factor and Risk Analyses, before the final physical product is to be produced and commercially exploited. It is a cost-effective and flexible tool, aiming at the qualitative product advancement.

There are a lot of software tools that could be adapted in the HIT VR system aiming at the implementation of more complex and sophisticated analyses, whereas the potentials for the system advancement to a three, four, five or six walls system (VR cave) is considered as a foreseen and feasible perspective within near future.

## Driving Simulator

The H.I.T. driving simulator is built around a Smart cabin equipped with sensors. The position of all control levers, windshield wipers, blinker, ignition key and light switch is transmitted to the driving computer. All operational elements, steering wheel, accelerator pedal, brake pedal, gearshift lever and handbrake lever, provide nature-true force reactions. The gearshift functions like in the real car either as automatic or "softtip" with incrementing and decrementing the six gears and with reverse gear.

The sight system includes five large-screens, each having a width of 2m. There is on-screen projection with consumer video projectors with 2500 ANSI-lumen. The sound system generates original sounds according to the situation (starter, engine noise, horn, screeching of tires, drive wind, rain, etc.). The vibration device creates nature true vibrations of the car according to the revolvation of the simulated engine.

The simulator is equipped with specialized software which allows the development of special driving scenarios, according to the purposes of each study. There is surrounding traffic with at the most 30 road users with artificial intelligence, comprising passenger cars, trucks, pedestrians and cyclists. They observe the traffic rules, the distance from the foregoing vehicle and observe the speed limits, come to a stop before red lights and crossing traffic, accelerate and decelerate in a natural way and may be passed. For traffic education and training the behavior patterns may be modified, so that aggressive, very slow, unskilled or drunken drivers may be simulated.

The software includes various courses (standard course, hill course, round course, roadnet, highway), sight- and road surface conditions (nice weather, fog, rain, snow, night) and various modes (i.e. driving under various alcohol consumption rates). There are also specific software modules related to elderly drivers' behavior assessment.

The simulator is adequate to study dangerous situations, which would not be safe to test on real traffic conditions, like for example overtaking, driving under the influence of alcohol, etc.



*General overview of the driving simulator.*



*Driver's field of view.*

## Research Vehicles

H.I.T.'s main vehicle research equipment is a number of clean vehicles that are used to serve Institute's research needs; namely to survey the impacts on the wide public from the introduction of clean vehicles in the urban traffic. These vehicles are described below.

### Electrically Assisted Bicycles

The electrically assisted bicycles are used so as to assist the rider in propulsion. Each bicycle weights approximately 38.5 kg and can carry up to 80 kg. The maximum speed is 20 km/h and the maximum driving range is 35-50 km.



*Figure 8: The electrically assisted bicycles.*

### Electrical Mopeds

The electrical moped EVT combines high technology with environment protection, easi-ness of use, smooth acceleration and portable charges. It includes a motor on the wheel for greater efficiency and reduced power consumption, a smart digital controller, over-heating protection systems and two modes of operation (economy and reinforced), energy level LEDs and negligible noise.



*Figure 9: Electrical moped during charging.*

### Hybrid Vehicle Toyota Prius

The hybrid vehicle TOYOTA PRIUS is being used – in parallel to the electric two-wheelers – in surveys regarding technologies of clean vehicles as well as for drivers' pilot training.

A special recording device was installed on the vehicle, which stores data regarding fuel consumption and driving behavior. This data can be sent via GPS to a center for monitoring and consulting purposes. The vehicle was also equipped with a wireless smart card reader. This smart card is used so as to activate the automatic operation of the entrance bar to a dedicated parking place.



*Figure 10: HIT's hybrid vehicle.*

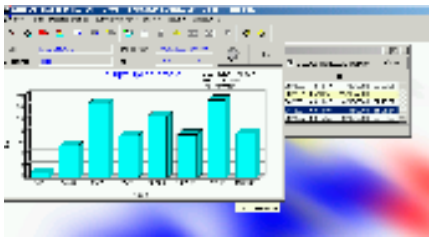


*Figure 11: Analysis of driving data.*



*Figure 12: System recording driving and consumption data.*

# SCIENTIFIC WORK

## Research Projects

An overview of H.I.T.'s scientific work in 2008 is presented in Table 1. During 2008, H.I.T. had 56 active projects, 19 of which were initiated in 2008 and the remaining 37 have been progressing since prior to 2008.

Also in 2008, 48 proposals were submitted, 11 of which have been accepted to date. Finally, 13 ongoing projects will end in 2009.

**TABLE 1: Overview of 2008 project activity**

| OVERVIEW OF HIT'S 2008 PROJECTS | |
|---|---|
| ACTIVE PROJECTS IN 2008 | 56 |
| PROJECTS INITIATED IN 2008 | 19 |
| PROJECTS INITIATED BETWEEN 2004-2008 | 53 |
| SUBMITTED PROJECT PROPOSALS IN 2008 | 43 |
| ACCEPTED PROPOSALS IN 2008 | 11 |
| PROJECTS TO END IN 2009 | 13 |

H.I.T.'s full active project breakdown is presented in Table 2 below.

**TABLE 2: Active projects in 2008**

| ACTIVE PROJECTS IN 2008 | | | | | | | |
|---|---|---|---|---|---|---|---|
| NO. | PROJECT MNEMONIC | PROGRAMME / CONTRACT NO. | PROJECT TITLE | LEAD SCIENTIST | HIT BUDGET (in Euros) | START DATE - END DATE | HIT'S ROLE |
| 1. | SENSATION | 6th FP IST | Advanced Sensor Creation for Attention, Stress, Vigilance and Sleep/Wakefulness Monitoring | E. Bekiaris | 1.346.685 | 1/1/2004 31/04/2008 | COORDINATOR |
| 2. | PReVENT | 6th FP | Active safety and accident prevention applications | E. Bekiaris | 598.755 | 1/2/2004 31/1/2008 | PARTNER |
| 3. | HUMANIST | 6th FPNOE | Human-centred design for Information Society Technologies | E. Bekiaris | 180,645 | 1/3/2004 29/2/2008 | PARTNER |
| 4. | ASK-IT | 6th FP | Intelligent Agent System for integrated services suitable for users with movement disabilities | E. Bekiaris | 795,178 | 1/10/2004 31/12/2008 | PARTNER |
| 5. | INTUITION (NOE) | 6th FP | Network of excellece on Virtual Reality and Virtual Reality Applications for Future Workspaces | E. Bekiaris | 216,500 | 1/9/2004 31/8/2008 | PARTNER |

| NO. | ACRONYM | FINANCIAL INITIATIVE & PROGRAM | FULL TITLE OF PROJECT | RESPONSIBLE FOR HIT | HIT BUDGET (EURO) | DUR. | ROLE OF HIT |
|---|---|---|---|---|---|---|---|
| 6. | AIDE | 6th FP (EUCAR) | Adaptive Integrated Driver-Vehicle Interface | E. Bekiaris | 546,810 | 1/3/2004 28/2/2008 | PARTNER |
| 7. | IN-SAFETY | 6th FP-SUSTDEV | Road Infrastructure and Safety | E. Bekiaris | 443,285 | 1/2/2005 31/1/2008 | COORDINATOR |
| 8. | Management Portal | General Secretariat for Research and Technology | Support infrastructure for transport research: CERTH/HIT's data management and processing Portal | G. Aifadopoulou | 1,275,039 | 1/10/2005 31/10/2007 | PROJECT LEADER |
| 9. | TRANS-AID | EU | Transfer of Knowledge in Transport Infrastructure Financing | I. Tyrinopoulos | 39,531 | 26/4/2005 25/4/2008 | PARTNER |
| 10. | HILAS | EU | Human integration into the Lifecycle of Aviation Systems | E. Bekiaris | 142.250 | 1/6/2005 31/5/2009 | PARTNER |
| 11. | VIRTHUALIS | EU | Virtual Reality and Human Factors Applications in Improving Safety | E. Bekiaris | 433,560 | 1/5/2005 30/4/2009 | PARTNER |
| 12. | GOODROUTE | EU | Dangerous Goods Transportation Routing, Monitoring and Enforcement | E. Bekiaris | 682,430 | 1/1/2006 31/12/2008 | COORDINATOR |
| 13. | HUMABIO | EU | Human Monitoring and Authentication using Biodynamic Indicators and Behavioural analysis | E. Bekiaris | 327,640 | 1/1/2006 30/6/2008 | COORDINATOR |
| 14. | ARISTEIA (Excellence) | General Secretariat for Research & Technology | Building up the Institute's infrastructure for Excellence | G. Giannopoulos | 365,920 | 1/1/2006 31/12/2007 | MAIN CONTRACTOR |
| 15. | SAFESPOT | EU | Cooperative systems for road safety "Smart Vehicles on Smart Roads" | G. Aifadopoulou | 200,845 | 1/1/2006 31/12/2009 | PARTNER |
| 16. | PEPPER | EU | Police enforcement policy and programmes on European roads | E. Bekiaris | 357,347 | 1/3/2006 31/8/2008 | PARTNER |
| 17. | PROMIT | EU | Promoting Innovative Intermodal Freight Transport | I. Tyrinopoulos | 245,824 | 1/3/2006 28/2/2009 | PARTNER |
| 18. | WATCH-OVER | EU | Vehicle-to-Vulnerable road user cooperative communication and sensing technologies to improve transport safety | E. Bekiaris | 255,443 | 1/1/2006 31/12/2008 | PARTNER |
| 19. | REVITA | INTERREG III B-CADSES | Development of small and medium-sized railway stations into multipurpose local service centers | G. Giannopoulos | 188,840 | 1/5/2006 1/6/2008 | PARTNER |

| NO. | ACRONYM | FINANCIAL INITIATIVE & PROGRAM | FULL TITLE OF PROJECT | RESPONSIBLE FOR HIT | HIT BUDGET (EURO) | DUR. | ROLE OF HIT |
|---|---|---|---|---|---|---|---|
| 20. | FREEMED | INTERREG III B-ARCHIMED | New mobility scenarios in the FREE trade zone in the MEDiterranean basin | G. Aifadopoulou | 433.560 | 1/6/2006 31/12/2007 | PARTNER |
| 21. | MULTIGATE | INTERREG III B-ARCHIMED | MULTI-modal transport passenger information systems for metropolitan GATEways | G. Aifadopoulou | 197,900 | 1/6/2006 31/12/2007 | PARTNER |
| 22. | CATER | EU | Computerized Automotive Technology Reconfiguration System | E. Bekiaris | 517,069 | 1/9/2006 31/8/2009 | PARTNER |
| 23. | TrainAll | SUSTDEV-FP6 | An integrated system for driver training and assessment using interactive training tools and new training programmes for all types of road transport | E. Bekiaris | 312,619 | 1/11/2006 31/10/2009 | COORDINATOR |
| 24. | FREIGHTWISE | EU | Management framework for Intelligent Intermodal Transport | G. Giannopoulos | 272,052 | 1/11/2006 30/4/2010 | PARTNER |
| 25. | LIMES | EU | Reinforcing security in Europe by integrated monitoring of coastal areas | G. Aifadopoulou | 28,300 | 1/12/2006 31/5/2010 | PARTNER |
| 26. | Information campaign | | Public awareness campaign for road safety | E. Bekiaris | | 14/12/2006 31/12/2009 | |
| 27. | IN MOSION | SSP FP6 | Science Shop for Innovative Mobility Solutions for Mobility Challenged Europeans | G. Aifadopoulou | 50,000 | 1/1/2007 30/6/2009 | PARTNER |
| 28. | DRUID | EC FP 6 | Driving under the Influence of Drugs, Alcohol and Medicine | E. Bekiaris | 431,834 | 15/10/2006 14/10/2010 | PARTNER |
| 29. | Eabilities | FP6-2005-IST-5 | A virtual platform to enhance and organise the coordination among centers for accessibility resources and support | E. Bekiaris | 136,725 | 1/9/2006 31/8/2008 | PARTNER |
| 30. | OSE - DIAVALKANIKI | OSE (Greek Railways) | Providing technical support to OSE (Greek Railways) for the South East European Cooperation Process | G. Aifadopoulou | 157,500 | 14/11/2006 13/9/2008 | MAIN CONTRACTOR |
| 31. | PERSONA | ANKO S.A. | PERceptive Spaces prOmoting iNdependent Aging «PERSONA» | E. Bekiaris | 20,000 | 2/4/2007 31/5/2010 | SUBCONTRACTOR |
| 32. | Koinonia tis Pliroforias (Information Society) | Institute for Technology & Research | Access for Disabled Persons to «Information Society's» e-Government services | E. Bekiaris | 90,000 | 6/7/2007 5/1/2009 | SUBCONTRACTOR |

| NO. | ACRONYM | FINANCIAL INITIATIVE & PROGRAM | FULL TITLE OF PROJECT | RESPONSIBLE FOR HIT | HIT BUDGET (EURO) | DUR. | ROLE OF HIT |
|---|---|---|---|---|---|---|---|
| 33. | Efyeis Odikes Metafores (Intelligent Road Transport) | Corfu Intercity Coaches (Greek: KTEL) | Consultancy Services for the «Intelligent Road Transport» project | I. Tyrinopoulos | 14,000 | 15/7/2007 31/1/2008 | SUBCONTRACTOR |
| 34. | TEO | National Road Construction Fund (Greek: TEO) | Appointed to carry out a study on handling dangerous goods passing through tunnels | G. Giannopoulos | 125,000 | 4/6/2007 4/3/2008 | SUBCONTRACTOR |
| 35. | PROOHF | INTERREG III B-ARCHIMED | PROtect Our Heritage from Fire | G. Aifadopoulou | 70,000 | 1/5/2007 31/7/2008 | PARTNER |
| 36. | MobineT | Anatoliki S.A. | Project team support for the set-up and operation of a pilot mobility centre in the City of Kalamaria, as part of the IIE-Mobine project | I. Tyrinopoulos | 15,000 | 1/12/2007 30/6/2009 | SUBCONTRACTOR |
| 37. | | Association of Local Authorities (TEDK) | Extending Thessaloniki Urban Transport Organisation's (OASTh) bus routes to Local Authorities within Thessaloniki County not served by the bus network at present | G. Aifadopoulou | 20,000 | 1/12/2007 31/1/2008 | SUBCONTRACTOR |
| 38. | KOMODA | FP 7 | Co-modality Towards optimised integrated chains in freight transport logistics | G. Aifadopoulou | 129,800 | 1/1/2008 31/12/2009 | PARTNER |
| 39. | OASIS | FP 7 | Open Architecture for Accessible Services Integration and Standardisation | E. Bekiaris | 854,898 | 1/1/2008 31/12/2010 | PARTNER |
| 40. | Saferider | FP 7 | Advanced Telematics for enhancing the safety and comfort of motorcycle riders | E. Bekiaris | 424,000 | 1/1/2008 31/12/2010 | COORDINATOR |
| 41. | METRONOME | FP 7 | An Evaluation methodology for the FP projects' impact in the field of transport | I. Tyrinopoulos | 53,466 | 1/2/2008 31/7/2009 | PARTNER |
| 42. | iTravel | FP 7 | Service Platform for the Connected Traveller | E. Bekiaris | 29,976 | 1/1/2008 30/6/2009 | PARTNER |
| 43. | ACTIBIO | 7 F.P. - Specific Targeted Research and Innovation Project (STRIP) | ACTIBIO, UNOBTRUSIVE AUTHENTICATION USING ACTIVITY RELATED AND SOFT BIOMETRICS/ 215372 | 260,000 | 136.725 | 1/3/2008 28/2/2011 | COORDINATOR |
| 44. | SHLOW | FP7 SSA | Show me How Slow | G. Giannopoulos | 29,460 | 1/3/2008 28/2/2010 | PARTNER |

| NO. | ACRONYM | FINANCIAL INITIATIVE & PROGRAM | FULL TITLE OF PROJECT | RESPONSIBLE FOR HIT | HIT BUDGET (EURO) | DUR. | ROLE OF HIT |
|---|---|---|---|---|---|---|---|
| 45. | Odiki Asfaleia (Road Safety) | University of Thessaly | Planning and organising a road safety campaign | G. Giannopoulos | 35,000 | 19/2/2008 19/6/2008 | SUBCONTRACTOR |
| 46. | MOSS | TREDIT | Project support for the project's WP 1, particularly for the development of a freight flow prediction model in the area under study (using special software) | G. Aifadopoulou | 50,000 | 18/2/2008 30/6/2008 | SUBCONTRACTOR |
| 47. | AEGIS | 7 F.P. - Integrated Project (IP) | Open Accessibility Everywhere: Groundwork, Infrastructure, Standards | E. Bekiaris | 1,538,136 | 1/6/2008 31/12/2011 | COORDINATOR |
| 48. | DRISKOS | Egnatia Odos S.A. | A risk assessment of dangerous goods passing through the Driskos tunnel | G. Giannopoulos | 20,000 | 13/6/2008 31/7/2008 | MAIN CONTRACTOR |
| 49. | Terra EPE (Terra Ltd.) | MLS | A qualitative evaluation of Terra Ltd.'s digital mapping data for navigation | E. Bekiaris | 8,403 | 23/6/2008 31/7/2008 | MAIN CONTRACTOR |
| 50. | TELEFOT | 7 F.P. - Integrated Project (IP) | Field Operational Tests of Aftermarket and Nomadic Devices in Vehicles | E. Bekiaris | 455,000 | 1/6/2008 31/5/2012 | PARTNER |
| 51. | FERSI | | | E. Bekiaris | 200,700 | 1/6/2008 31/5/2011 | |
| 52. | KTEL CHALKIDIKIS | Ministry for Transport | Accessibility review and report for the new Chalkidiki Intercity Coaches (KTEL) East Thessaloniki terminal station | G. Aifadopoulou | 37,815 | 1/8/2008 31/12/2008 | MAIN CONTRACTOR |
| 53. | SMART CM | FP 7 IP | SMART-CONTAINER CHAIN MANAGEMENT | G. Aifadopoulou | 700,147 | 1/8/2008 31/7/2011 | COORDINATOR |
| 54. | MARPOS | FP 7 Support Action | Maritime Policy Support | I. Tyrinopoulos | 170,088 | 1/12/2008 31/5/2010 | COORDINATOR |
| 55 | ACCESS2ALL | 7 F.P. - Coordination Action (CA) | Mobility Schemes Ensuring Accessibility of Public Transport for All Users | E. Bekiaris | 160,645 | 1/12/2008 30/11/2010 | PARTNER |
| 56. | ACCESSIBLE | 7 F.P. - Specific Targeted Research and Innovation Project (STRIP) | ACCESSIBLE-Accessibility Assessment Simulation Environment for New Applications Design and Development | E. Bekiaris | 372,000 | 1/9/2008 31/8/2011 | PARTNER |

## 2008 Publications by H.I.T.'s Scientists

1. **Giannopoulos G.**, "The application of co-modality in Greece: A critical appraisal of progress in the development of co-modal freight centres and logistics services", Transition Studies Review, Vol. 15, Issue 2, September 2008, pp. 289-301.
2. Naniopoulos A., **Giannopoulos G.**, Pyrgidis Chr., Gologina-Economou E. (2008), «Organisation and Management of freight transport systems", 204 pages.
3. **Giannopoulos G., Aifadopoulou G.**, Torok A., "Port choice model for the transhipment of containers in Eastern Mediterranean", 87th Transportation Research Board Annual Meeting, Washington, DC, USA, 2008.
4. **Bekiaris E., Panou M., Gaitanidou E., Mourouzis A.**, Ringbauer B., "Intelligent mobility and transportation for all". Book: The Universal Access Handbook, C. Stephanidis (ed.), Lawrence Erlbaum Associates, Inc. (LEA) In «Human Factors and Ergonomics» series (approved for publication in June 2008).
5. **Tyrinopoulos G.**, Antoniou K., "Public transit user satisfaction – Variability and policy implications". Transport Policy, Journal of the World Conference on Transport Research Society, Volume 14, Number 5, 2008 (pp. 260-272).
6. **Tyrinopoulos G., Aifadopoulou G.**, «A Complete Quality Control Methodology for the Passenger Services in the Public Transport Business», Journal of European Transport (Transporti Europei), Number 38, 2008 (pp. 1-16).
7. Amditis A., Floudas N., Kaiser-Dieckhoff U., Hackbarth T., Den Broek B., Miglietta M., Danielson, L., **Gemou M. and Bekiaris E.**, Integrated vehicle's lateral safety: the LATERAL SAFE experience, Intelligent Transport Systems, IET, Volume 2, Issue 1, March 2008 Page(s):15 – 26, Digital Object Identifier 10.1049/iet-its:20070013.
8. Winkelbauer M., **Gaitanidou E.**, "A systematic approach towards the best available road safety activities for European Member States", ICTR 2008, Athens, Greece, May 2008.
9. **Bekiaris E., Gaitanidou E.**, "Using micro-simulation modelling for driver assistance systems assessment", TRA 2008, Ljubljana, Slovenia, April 2008.
10. **Gaitanidou E., Bekiaris E.**, "Mobility Schemes Ensuring Accessibility of Public Transport for All Users (ACCESS 2 ALL)", ASK-IT International Conference, Nurremberg, Germany, June 2008.
11. **Bekiaris E., Gaitanidou E.**, Winkelbauer M., "Road operators' Manual and MMT for ITS applications", ITS World 2008, New York, USA, November 2008.
12. **Gaitanidou E., Bekiaris E.**, "Conceptual model for an EU TLE monitoring database", ITS World 2008, New York, USA, November 2008.
13. **Bekiaris E., Panou M., Vataki A.**, "ASK-IT Greek pilot services and results", ASK-IT Final International Conference, in CD proceedings, Nuremberg, June 26-27, 2008, Germany, ASK-IT 2nd Intrernational Conference.
14. **Panou M., Bekiaris E., Giannopoulos G.**, "Driver Cognitive Engineering Applications", 4th International Congress on Transport Research in Greece, pp.296-306, May 2008, 4th International Congress on Transport Research in Greece.
15. **Panou M.**, "On-the-road static & dynamic measurements of drivers' reaction time for personalised ADAS warnings", ITS Word 2008, in CD proceedings, New York, USA, ITS Word 2008.
16. **Bekiaris E., Panou M.**, Pioggia G., "An innovative framework for elderly-friendly transportation and driver support services", ITS Word 2008, in CD proceedings, New York, USA, ITS Word 2008.
17. **Tyrinopoulos G.**, Antoniou K., "Advanced information and communication technologies initiatives aiming at the efficiency of intermodal transport". 4th International Conference on Transport Research in Greece, Proceedings, pp. 246-254), Athens, 28-30 May 2008.
18. Alexopoulos A., **Gagatsi E., Tyrinopoulos G.**, «Analysis of existing systems for sustainable environmental management of ports». 4th International Conference on Transport Research in Greece, Proceedings, pp. 403-413), Athens, 28-30 May 2008.
19. **Aifadopoulou G., Giannopoulos G., Charalampous G.**, «Container trans-shipment in the Eastern Mediterranean: Analysis of demand characteristics and impact on Greek ports», 4th International Conference on Transport Research in Greece. ICTR 2008, Athens, 28-31 May 2008.



20. **Aifadopoulou G., Morfoulaki M., Mitsakis E.**, "An Online Portal for Integrated Transportation Data Management and Processing – HIT Portal", ITS World Congress, New York, USA, November 2008.
21. **Morfoulaki M., Aifadopoulou G., Chrysochoou E., Gagatsi E.**, «An evaluation of the influence of Euro-Mediterranean Association Free Trade Agreements on the growth of Greece's freight flows in the Mediterranean», 4th International Conference on Transport Research in Greece, Athens, 28-30 May 2008.
22. Papaioannou P., **Morfoulaki M.**, Mikiki F., "Exploring ITS effects on customer satisfaction and travel behaviour", 10th International Conference on Applications of Advanced Technologies in Transportation, May 2008.
23. Emmanouilidis V., Patrinos A.J., **Gemou M., Bekiaris E.** and Tzovaras D., «A real time decision support system for the safe and efficient routing of dangerous goods vehicles», TRA 2008, April 2008.
24. **Gemou M.** and **Bekiaris E.**, «Ontological Framework for the Dangerous Goods Transportation Logistic Chain», 4th International Congress on Transportation Research in Greece, May 2008.
25. Pagle k., Amditis A., **Bekiaris E., Gemou M.** and Tzovaras D., «System architecture principles for safe transportation of dangerous goods; the good route approach», ITS Europe 2008, June 2008.
26. Emmanouilidis V., Tzovaras D., **Gemou M. and Bekiaris E.**, «Decision Support System for the Safest and Most Cost-Efficient Routing of Dangerous Goods Vehicles», eChallenges 2008, October 2008.
27. **Aifadopoulou G., Margaritis D.**, «Accident Study Of City Trams In Athens», pp.575-580, 4th International Congress of Transportation Research in Greece, Athens, 2008.
28. **Aifadopoulou G., Margaritis D.**, «Training Focus For The Certification Of Heavy Vehicle Drivers», Paper No 12.4.9, TRA International Congress, Slovenia, 2008.
29. **Bekiaris E.**, Montanari R. and **Nikolaou S.**, "In-vehicle ITS adaptation and integration in Powered-Two-Wheelers: The SAFERIDER European Project", ITS World Congress '08, November 16-20, New York, USA.
30. **Nikolaou S.**, Poster presentation and demonstration of the HUMANIST Multimedia Training Tool on Drivers' Training on ITS, HUMANIST Final Conference, April 3-4 2008,Lyon, France.
31. **Charalampous G.**, «Container trans-shipment in the Eastern Mediterranean: Analysis of demand characteristics and impact on Greek ports», 4th International Conference on Transport Research in Greece (ICTR 2008), Athens, 28-31 May 2008.
32. **Charalampous G.**, «The role of European Transport Institutes in Ports' research activities», CAPOEIRA Conference, Brussels, 29 October 2008.
33. **Margaritis D., Aifadopoulou G.**, «Road Safety and Traffic Education, Municipality of Thessaloniki, City Police Deputy Mayorship, Thessaloniki, 26 November 2008.

Note: HIT staff in **bold**.

# EDUCATIONAL WORK

## H.I.T.'s Involvement in the «Planning, Organising and Managing Transportation Systems» Postgraduate Studies Programme

The areas of Planning, Organising and Managing Transportation Systems on a local, regional, national and supranational scale are of high priority for Greece. This is why H.I.T., with the Aristotle University of Thessaloniki (A.U.Th.) Schools of Civil Engineering and Rural & Survey Engineering, jointly run the Cross-discipline postgraduate programme of study (Greek: DPMS) titled "Planning, Organising and Managing Transportation Systems". The aim is to maintain a programme of study of a high standard, European in philosophy and international in outlook, with the involvement of renowned and acclaimed Institutions of Transport Education based in Greece and abroad.

For more information, you can visit **http://civil.auth.gr/pgtransport**






# FINANCIAL REPORT FOR 2008

From Table 3, it can be seen that H.I.T.'s biggest source of revenue for 2008 is European Union research projects (54%), with an additional 31% of total revenue from General Secretariat for Research and Technology research projects. As for revenue from Services and the National Budget, their share for 2008 is 9% and 5% respectively.

**TABLE 3: H.I.T.'s finances, 2008**

| FINANCIAL REPORT 2008 | |
|---|---|
| **SOURCES OF REVENUE** | **2008** |
| Ongoing Projects (number of) | 56 |
| Revenue from European Union funded research projects | 2.210.214,72 |
| Revenue from GSRT funded research projects | 1.311.214,29 |
| 2008 National Budget allowance | 374.799,84 |
| Revenue from Services | 221.505,57 |
| Other | 48.102,96 |
| Total Annual Revenue | 4.165.837,38 |

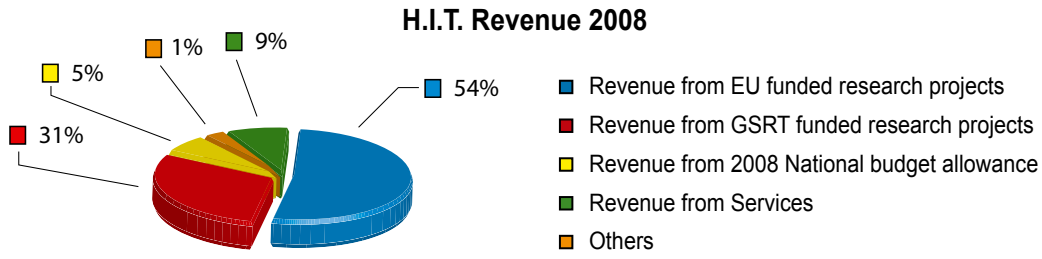



*Figure 13: H.I.T.'s income distribution by source.*

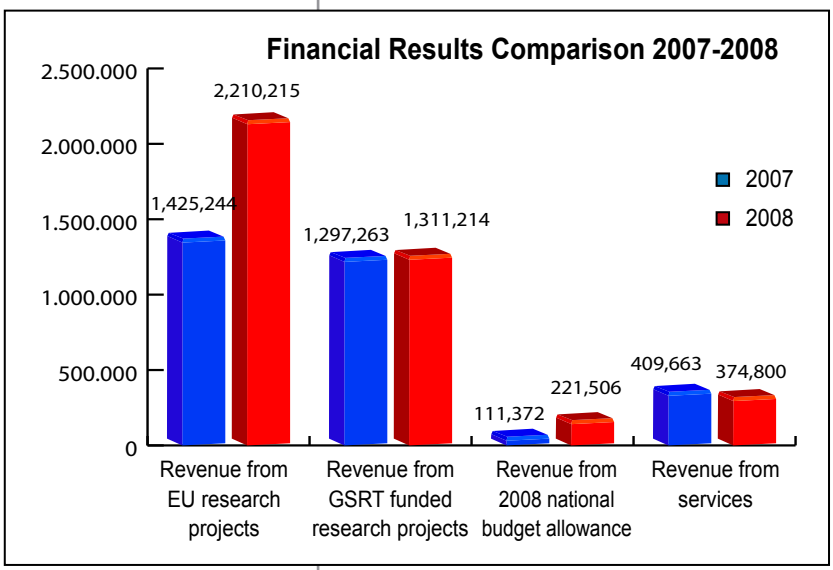



*Figure 14: H.I.T.'s revenue year on year (2007-2008).*

Perhaps the most notable conclusion drawn from this split of revenue is the very small share of the National Budget allowance (not higher than 5%).

«Services» projects, too, represent a very small percentage of total revenue (9%). These include projects assigned to H.I.T. by Ministries or other public or private organisations in Greece and abroad, although to date it almost exclusively comprises projects assigned to H.I.T. by Ministries. Therefore, the total Government contribution to H.I.T.'s revenue represents a fraction (less than 15%) of the total income, a fact that highlights the more significant inflows from the other sources of revenue.

Given most of the inflows come from successive proposals after purely competitive procedures, ie. ones won through responding to ITTs and passing technical evaluations, it is evident how highly competitive H.I.T. is on a European level.

# INTERNATIONAL PARTNERSHIPS AND PROMOTIONAL ACTIVITIES

## International Partnerships

### ECTRI – European Conference of Transport Research Institutes

In January 2003, the European Conference of Transport Research Institutes was founded as an international not-for-profit association under French law, based in Lyon, France. H.I.T. is a founding member of ECTRI.

More information can be found on the ECTRI website: http://www.ectri.org.

In January 2003, H.I.T.'s Director Prof. G. Giannopoulos was elected first ECTRI Chairman for the two-year period 2003-2005 and was then re-elected in March 2005 for the 2005-2007 period. In December 2008, following an international call for candidates and subsequent assessment thereof, H.I.T.'s Dr. E. Bekiaris (Researcher Grade A) was appointed editor-in-chief of the European Transport Research Review (ETRR) journal published by ECTRI in partnership with a major European publishing house.

### SETREF – South East European Transport Research Forum

The South East European Transport Research Forum (SETREF) is an international non-governmental, not-for-profit association of South East Europe Transport research organisations. SETREF members are active in Transport research and/or education. It was founded in Thessaloniki in April 1997 and is hosted by HIT in Greece.

Today, SETREF has 33 member Organisations, with most of which H.I.T. has close relations.

H.I.T. had held the SETREF presidency for seven years and currently holds the Forum's vice-presidency.

More information can be found on SETREF's website: http://hermes.civil.auth.gr/setref.

### ERTICO – European Road Transport Telematics Implementation Co-ordination Organization

The European Road Transport Telematics Implementation Co-ordination Organization (ERTICO) is a not-for-profit organisation with private- and public-sector stakeholders. It was founded in 1991 on a joint initiative by the European Union and Member State governments. Its mission is the advancement and application of Intelligent Transport Systems and Services (ITS), to ensure sustainable mobility, quality of transportation and high margins. By joining ERTICO, member organisations can realise significant synergies across sectors and states, in order to develop a successful Europe-wide market for Intelligent Transport Systems.

In 2003, CERTH became the first Greek ERTICO stakeholder with two of its Institutes, namely HIT and the Informatics and Telematics Institute (Greek: IPTIL).

### FERSI – Forum of European Road Safety Research Institutes

The Forum of European Road Safety Research Institutes (FERSI) was founded in 1991 as an association of the transport safety research institutions in most European countries.

H.I.T. joined FERSI in 2004. Dr E. Bekiaris (H.I.T. Researcher Grade A) was elected FERSI chairman in 2008.

### EUROPEAN ENVIRONMENT AGENCY

The Hellenic Institute of Transport has been European Environment Agency's National Focal Point for Greece since 2001. Specifically, HIT contributes to the process of commenting on data used to produce European environmental indicators evaluating the transport-environment interaction.




## European Transport Research Review - ETRR

**Advisory Board Member:** Prof. G. Giannopoulos, Director, CE.R.T.H./H.I.T.
**Editor-in-chief:** Dr. E. Bekiaris, Research Director, CE.R.T.H./H.I.T.
**Editorial Board Members:** Dr. G. Aifadopoulou, Researcher B, CE.R.T.H./H.I.T.,
Dr. Maria Panou, Researcher C, CERTH/HIT

**TOPICS**

- Freight transport and logistics
- Mobility and transport behaviour
- Safety and security
- Transport and economics
- Transport and the environment
- Transport infrastructure
- Transport planning and policy
- Transport system management
- Vehicle technology

The *European Transport Research Review – An Open Access Journal (ETRR)* is an online scientific platform aiming at disseminating research results in the field of transport. The main scope and mission of the Journal is to provide a forum for the publication of high quality scientific papers in the field of transport in general, and a dissemination medium for new ideas and developments that originate in, or are of interest to, the European transport research community. The Journal was established by the European Conference of Transport Research Institutes (ECTRI).

There are three aspects of the Journal's concept that mark a distinct difference to the other journals in the field of transport; first, it is the open access configuration that makes it easily and widely available through the internet to all readers with a minimum of constraints and costs; second, it provides focus on issues of special interest to European transport research, its funding bodies and supervising organisations; third, it is clearly oriented towards both researchers and practitioners.

The Journal considers primarily papers, on both theoretical as well as applied research, whose excellence and content represent an important contribution to transport research in Europe. Papers dealing with theoretical or applied research outside Europe are also encouraged to be submitted for publication, as long as their results are of relevance to European transport concerns, or can contribute to scientific knowledge or best practice transfer between researchers in Europe and their counterparts in other continents.

Contributors are advised to submit papers that fit at least in one of the areas of interest identified by the Journal. However, the Editorial Board can also consider papers that are not directly related to these areas but are considered of interest of or particular concern to the aims and goals of the Journal. Papers published in the Journal are subjected to peer-review in accordance with standard international practices for scholarly journals. In addition, the Journal will also periodically publish information papers, as well as book and conference reviews regarding transport policy and research in Europe.

For more information please visit: www.springer.com/12544, ISSN:1867-0717.

## Cooperations in Greece

In Greece, H.I.T. has a long-term stable cooperation with A.U.Th., and in particular with the Laboratories of Highway Engineering and Transport Engineering at the Department of Civil Enginering, as well as with the Transport Research Group of the Transport and Hydraulics Works Sector at the School of Rural & Survey Engineering. This partnership is primarily about H.I.T.'s share in organising and running the Cross-discipline Postgraduate Programme in Transport, which first admitted students in September 2003.

Also, H.I.T. collaborates systematically with the Hellenic Institute of Transportation Engineers (Greek: SES), jointly organising the biennial Conference for Transport Research in Greece. H.I.T. and SES also collaborate on many other conferences and events.

Finally, through the various studies and special research projects it undertakes, H.I.T. has worked and is working with all the major Transport players in Greece. For instance: the Ministry for Transport,

the Ministry for the Aegean, the Ministry for Public Works, Planning & the Environment, the Region of Central Macedonia, the Greek Railways (Greek: OSE), the Athens Urban Transit Organisation (OASA), the Council for Thessaloniki's Urban Transit (SASTh), and the Thessaloniki Port Authority (OLTh).

## Other Promotional and Public Awareness Activities

In promoting its work and raising public awareness of it, the Hellenic Institute of Transport organises each year conferences and seminars in areas within its scientific remit, takes part in related exhibitions and collaborates with scientific journals.

Also, H.I.T.'s views and positions as Greece's National Advisor on Transport are publicised through a multitude of interviews on the Media.

A detailed breakdown of 2008 promotional activities by the Institute is presented in the following sub-sections.

### Organization of Conferences & Seminars

***2nd Intermodal Transport Innovation Conference, Valencia, March 2008***

H.I.T. and the EU's PROMIT (Promoting Innovative Intermodal Freight Transport) Coordination Action partners, in collaboration with the European Intermodal Association (EIA), Europlatforms and ITENE, jointly organised the 2nd Intermodal Transport Innovation Conference under the heading «Co-modality: An intermodal key to sustain green logistics».

As a follow-up to the first successful Conference for this project (Antwerps, March 2007), the 2nd Intermodal Transport Innovation Conference took place in Valencia on 6 and 7 March 2008.

During the Conference, recommendations and solutions for Transport's sustainability dimension were presented by various institutions involved in intermodal transport (industry, authorities, academics and research bodies). The Conference functioned as a stage for exchanging views, discussions, promoting innovations, and opportunities to develop new partnerships in order to seek optimal solutions in "Green Logistics", a term gradually gaining prominence in European Transport policy, opening up new prospects and fields.

Over 200 participants from the European intermodal freight transport and logistics community attended the Conference, whose themes included sessions on:

- Intermodal transport and operability, both keywords in the "Green Logistics" process;
- "Green Logistics": Results with business models;
- The role of technology in the growth of "Green Logistics";
- Education and research activity in "Green Logistics"; and
- Selected examples of best practices by major industry players in Europe.

The attendees had the opportunity to experience a technical visit and a relevant show of examples reflecting some "green" solutions of sustainable and energy-efficient intermodal freight transport in Europe.

***4th International Conference for Transport Research in Greece, Athens, 28-30 May 2008***

After 3 successful International Conferences for Transport Research in Greece, the 4th Conference took place in 2008 at the Divani Caravel Hotel Athens, organised in collaboration with the National Technical University of Athens (NTUA).

The 4th Conference was held concurrently with the 10th International Advanced Applications in Transport Technology (AATT) Conference, organised by the NTUA, the American Society of Civil Engineers (ASCE) and the US Transport Research Board (TRB).

The concurrent running of these two Conferences allowed the attendees numerous opportunities to learn of the latest developments and exchange views with the Greek and the international scientific community on Transport research and innovation.

The 4th Conference's aim was to present Transport research activity in Greece and Europe finding applications in Greece. A second aim was to offer Greek researchers and scholars the possibility of

exchanging views, opinions and experiences on Transport research issues with Greek and foreign colleagues.

The Conference programme was split into a total of 11 Sessions, to cover key issues in Transport such as: Urban and Intercity Traffic Management, Transport Policy, Freight Transport and Logistics, Transport Safety, Maritime Transport, Air Transport, Railway Transport & Track-based Modes.

***«Mediterranean Free Trade Zones: Limitations and Prospects», 30th October 2008***

The National Technical University of Athens (NTUA) and the Hellenic Institute of Transport jointly organised the international conference titled «Mediterranean Free Trade Zones: Limitations and Prospects», as part of the FREEMED («New mobility scenerios in the FREE trade zone in MEDiterranean basin») project funded by the Archimed-INTERREG IIIB Programme.

The Conference took place at the Park Hotel in Athens on 30 October 2008. Its main aim was to present the development and operation of free trade zones, as well as their influence on freight flows between Mediterranean countries.

The event was attended by senior representatives from Greece's major ports and Italian representatives as well. The major scenarios for the development of free trade zones in the two countries were also presented. The project's results were made public, as well, and the Conference ended with a session for open discussion and exchange of views among the attendees.

More information can be found on the Conference website http://www.freemedconf.imet.gr.

## Cooperation with Scientific Journals

As part of its communications policy and contribution to freight transport and logistics research and developoment, the Hellenic Institute of Transport has a permanent column in Supply Chain and Logistics (formerly: Warehouse & Transportation), a (Greek) magazine targeted at a broad audience in the freight transport and logistics market and industry. This column reflects H.I.T.'s positions and views on topical issues, whilst also publicising the Institute's research results.

During 2008, five articles were published, namely:

- «Maritime transportation of dangerous goods in the Aegean: Island port environmental and safety issues lamentably still not dealt with», March 2008.
- «The future of Greek Container Terminals in the context of changes in the global and, particularly, the East Mediterranean container market», June 2008.
- «The future of transport in Greece': Conclusions from a week of events and brainstorming», June 2008.
- «Central Macedonia's Freight Centre in Thessaloniki», September 2008.
- «The need for a fresh start in addressing Greece's Transport problems», October 2008.

## Participation in Exhibitions and Events

In 2008, H.I.T. participated in various exhibitions and events, where the wider public had the opportunity to become aware of the Institute's work and see its research equipment, mainly the driving simulator. Such events were:

- Xanthi County Police Show, 29 January 2008, Xanthi Municipal Amphitheatre.
- 4X4 Vehicle Club of Kilkis County in partnership with Radio Ekfrasi, 24 February 2008, S.T.E.V.E. racetrack, Kilkis.
- "Days of emergency pre-hospital care", 11-12 April 2008, University Hospital of Larissa.
- "Motorcycles and road safety", 16 April 2008, Municipality of Edessa and Local Delinquency Prevention Council.
- "The future of Transport in Greece and globally", 5-8 May 2008, NOESIS.
- "Drinking and Driving". Three days of events in partnership with the Local Young People's Council of the Municipality of Kastoria city, 16-18 July 2008.
- 73rd Thessaloniki International Trade Fair, 6-14 September 2008. H.I.T.'s van was present at concerts in Kosmoradio 95.1 FM radio station's pavillion.
- Research and Technology Festival, Zappeion, Athens, 27-30 November 2008.
- Informing citizens on the digital strategy of Operational Programme Information Society, City of

Veroia, 3 December 2008.

- Informing citizens on the digital strategy of Operational Programme Information Society, City of Xanthi, 5-9 December 2008.
- Briefing students on road safety, 2nd state Vocational Lykeio* of Polygyros, 10 December 2008.

### H.I.T. in the Media (Selected Interviews and Presentations)

1. «Road safety made in Greece». An in-depth presentation of CE.R.T.H./H.I.T., of the driver drowsiness detection technologies led by Dr. E. Bekiaris, and road safety awareness campaigns. An interview with A. Tsioutras, by Kostas Stefos of Car and Driver magazine, December 2008.
2. «Seminar on driving safely: Learning to drive safely in order to live. Raising students' awareness with H.I.T.'s driving simulator, in partnership with the Thessaloniki Drivers Club (Greek: AOTh)». An interview with A. Partalios, D. Baltoumas, S. Charizonas and A. Tsioutras, by Chalkidiki TV and Super TV channels, news bulletins, 10 December 2008.
3. «H.I.T.'s participation with its 1st generation hybrid car and driving simulator in the 1st Eco-Vehicles Show, held at the American Farm School of Thessaloniki in September 2008». In Auto Business Review magazine, Iss. 13, Oct.-Dec. 2008, pp.6-15.
4. «H.I.T.'s technological achievements at the Science and Technology Festival held at Zappeion, Athens». An interview with A. Tsioutras on Crete TV's news bulletin, 28 November 2008.
5. «An interview with George Giannopoulos. Hellenic Institute of Transport: Greek ports can be transformed into modern freight shipment hubs». An interview with Prof. G. Giannopoulos, by Mary Efthymiatou, Supply Chain and Logistics magazine, Iss. 19, 15 November 2008, pp.30-35.
6. «Road safety in Greece», CE.R.T.H./H.I.T.'s positions. By Prof. G. Giannopoulos, Supply Chain and Logistics magazine, Iss. 19, 15 November 2008, pp.108-109.
7. «Seminar on driving safely: Learning to drive safely in order to live.» A joint effort by the Thessaloniki Drivers Club (AOTh) and CE.R.T.H./H.I.T., held at the Polygyros Vocational Lykeio on 10 December. Speakers: Mr. Ant. Partalios, AOTh Chairman, and Mr. A. Tsioutras, Transport Engineer. Website: www.R40.gr.
8. «Seminar on driving safely: Learning to drive safely in order to live.» A joint effort by the Thessaloniki Drivers Club (A.O.Th.) and CE.R.T.H./H.I.T., held at the Polygyros Vocational Lykeio on 10 December. Speakers: Mr. Ant. Partalios, A.O.Th. Chairman, and Mr. A. Tsioutras, Transport Engineer. Website: www.xwmatinos.gr.
9. «Road accidents in Greece rise dramatically - but fall in Thessaloniki, according to Traffic Police». An interview with A. Tsioutras, Simera sti Thessaloniki (Today in Thessaloniki) newspaper, 1 November 2008.
10. «H.I.T.'s smart car and Greek researchers' contribution to driver support systems development, aiming for higher road safety». An interview with K. Kalogirou, by Giorgos Rodakoglou. Studio appearance of A. Tsioutras on G. Rodakoglou's Maties sto simera (A glance at today) show on 4E TV channel.
11. «H.I.T.'s smart car». An interview with A. Tsioutras, by Popi Tsapanidou and Maria Kechagia, live on the Symvainei Tora (Happening Now) show, NET TV channel, 24 October 2008.
12. «The car that detects its driver's state of drowsiness, and its contribution to road safety». An interview with A. Tsioutras live on Ekfrasi radio station, 24 October 2008.
13. «The H.I.T. smart car that alerts the driver». Interview with E. Bekiaris, A. Tsioutras, by Fotis Koutsamparis, Makedonia newspaper, 21 October 2008.
14. «Kavala County Traffic Police Week: H.I.T.'s simulator; Ways of avoiding accidents; The vehicle that detects its driver's drowsiness; How and whether transport studies are utilised by Local Authorities». A discussion between A. Tsioutras and Sakis Laios on Channel 7, city of Kavala, 30 September 2008.
15. «Mobility Week 2008: H.I.T.'s recommendations for smart alternative transit in the Athens and Thessaloniki city centres.» An interview with Prof. G. Giannopoulos on ET-3 TV channel, 22 September 2008.

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* *A «Vocational Lykeio» is a non-compulsory 3-year stage in Greek secondary education, upon completion of which students can take part in University entry exams. (translator's note)*

16. «Mobility Week 2008: H.I.T.'s recommendations for smart alternative transit in the Athens and Thessaloniki city centres.» An interview with A. Tsioutras, by Dimitris Manis, SKAI Radio 100,4, 22 September 2008.
17. «Simulating 'eco-driving' using H.I.T.'s simulator at the Eco-Cars show». An interview with A. Tsioutras on the TV Makedonia channel news bulletin, 20 September 2008.
18. H.I.T.'s participation in an international conference on protecting monuments from natural disasters, as part of research project PROOHF. Online briefing by E. Mitsakis, www.in.gr, 12 September 2008.
19. H.I.T. within CE.R.T.H. Prime Minister K. Karamanlis's visit to CE.R.T.H.'s headquarters. An interview with Prof. G. Giannopoulos, by Nikoleta Georgiopoulou, on the NET TV channel news bulletin, 5 September 2008.
20. H.I.T. within CE.R.T.H. Prime Minister K. Karamanlis's visit to CE.R.T.H.'s headquarters. An interview with Prof. G. Giannopoulos, by Nikoleta Georgiopoulou, on the ET-3 TV channel news bulletin, 5 September 2008.
21. Broadcasts of three TV adverts against drink-driving, as part of the road safety campaign titled «Alcohol? Not tonight, I'm driving», on the three state-run TV stations, on the occasion of the Beijing Olympics, between 1 August 2008 and 30 September 2008.
22. «Advice on driving on lesser roads in the summer». An interview with A. Tsioutras, by Sotiris Kyriakidis, on the Marathonios tis epistrofis (The long way home) radio show, Radio Thessaloniki, 3 August 2008.
23. «The dangerous spots on the road to Chalkidiki». Interview with A. Tsioutras, by Lia Christara, on the ET-3 TV channel news, 31 July 2008.
24. «The traffic problem in Thessaloniki city and measures for addressing it». An interview with A. Tsioutras, by Lia Christara, on the ET-3 TV channel news, 30 July 2008.
25. «Drinking and Driving: Three days of events in the city of Kastoria». An interview with A. Tsioutras on the ET-3 TV channel news, 20 July 2008.
26. «H.I.T. mentioned in the context of the initiative by Kastoria's Young People's Council.» An interview with K. Moyssidis, Chairman of the Young People's Council, by Makis Kouris, for the «Young Citizen» column in the To Paron (The Present) newspaper, 20 July 2008.
27. «Drinking and Driving: Three days of events in the city of Kastoria». An interview with A. Tsioutras and K. Moyssidis for the Rendezvous at 9 show hosted by Melina Karapanagiotidou and Christos Nikolaidis, ET-3 TV channel, 18 July 2008.
28. «Drinking and Driving: Three days of events in the city of Kastoria». An interview with A. Tsioutras and K. Moyssidis, by Babis Batsaras, on Flash TV, 16 July 2008.
29. «Hybrid vehicles: Advantages; Usage; Sales statistics.» An interview with A. Tsioutras, by Sofia Toundouri, for the Simera sti Thessaloniki (Today in Thessaloniki) newspaper, 14 July 2008.
30. «Engine issues in the summer». An interview with A. Tsioutras, by Sotiris Kyriakidis, on the Marathonios tis epistrofis (The long way home) radio show, Radio Thessaloniki, 12 July 2008.
31. «Advice on navigating the city exit points onto the Motorway and onwards to Chalkidiki». Studio appearance by A. Tsioutras and A. Tsalbouris on the Rendezvous at 9 TV show hosted by Melina Karapanagiotidou, 10 July 2008.
32. «Alternative routes to Chalkidiki. Driving behaviours in the weekend traffic jam.» Studio appearance by A. Tsioutras on the Rendezvous at 9 TV show hosted by M. Karapanagiotidou, 23 June 2008.
33. «Child and car.» An interview with A. Tsioutras, by Sotiris Kyriakidis, on the Marathonios tis epistrofis (The long way home) radio show, Radio Thessaloniki, 22 June 2008.
34. «Traffic: A single accident chokes the entire city. When infrastructure is long past its prime.» An interview with A. Tsioutras, by Donia Kanitsaki, Aggelioforos (The Herald) newspaper, 8 June 2008.
35. «Hybrid vehicles.» Appearance of A. Tsioutras on the Oiko-Kinissi show hosted by Sokratis Pavlidis on Europe 1 TV, 23 May 2008.
36. «Driver culture and young people: HIT's books and the decision that they should stay on school shelves.» Studio appearance by A. Tsioutras on the Rendezvous at 9 TV show hosted by Melina Karapanagiotidou, 20 May 2008.

37. «Events organised by the Municipality of Edessa on motoryclists' safety; Training using CE.R.T.H./H.I.T.'s driving simulator, in tandem with stirring up "green" thinking with the electric scooter and the hybrid car.» An interview with A. Tsioutras for the ET-3 TV channel news, 9 May 2008.
38. «Dirving simulator; Alcohol kills; Women are more cautious». An interview with A. Tsioutras, by Sotiris Kyriakidis, on the Tropos na zeis (Way to live) show on SKAI TV, 14 May 2008.
39. «How freight forwarding will grow in Greece.» A presentation by Dr. G. Aifadopoulou (H.I.T.) at the event on the future of transport, Kerdos (Profit) newspaper, 10 May 2008.
40. «Ports: Open all hours. Every day.» What Dr. G. Aifadopoulou (H.I.T.) highlighted at the event on the future of transport, I Efimerida ton politon (The citizens' newspaper), 10 May 2008.
41. «A week of events: The future of transport in Greece; Road safety initiatives in Europe». An interview with Mr. Avenoso, Deputy Director of the European Transport Safety Council (ETSC), on the SKAI TV news, 9 May 2008.
42. «Who services the security forces' vehicles?». Studio appearance by A. Tsioutras on the Rendezvous at 9 TV show hosted by Melina Karapanagiotidou, ET-3 TV, 8 May 2008.
43. «A week of events on the future of transport in Greece; H.I.T.'s research vehicles.» An interview with A. Tsioutras, by Sakis Panas, on the Kalo Mesimeri (Good afternoon) TV show, TV100, 6 May 2008.
44. «A week of events on the future of transport in Greece.» An interview with the Mayor of Thessaloniki, the General Secretary of the Ministry for Transport and Communications Mr Simopoulos, Prof. G. Giannopoulos, Prof. I. Antonopoulos and A. Tsioutras, ET-3 TV news bulletin, 5 May 2008.
45. «A week of events on the future of transport in Greece.» An interview with the Mayor of Thessaloniki, the General Secretary of the Ministry for Transport and Communications Mr Simopoulos and Professors G. Giannopoulos and I. Antonopoulos, TV100 news bulletin, 5 May 2008.
46. «The Great Exiting-the-City School». Advice for drivers on the Easter mass exodus. Studio appearance by A. Tsioutrasa and A. Tsalbouris on the Rendezvous at 9 TV show hosted by Giannis Kyfonidis, ET-3 TV, 24 April 2008.
47. «Priority no. 1: A system of sustainable transport. Transport Institutes' conclusions on Transport.» Pan-European ECTRI conference organised by CE.R.T.H./H.I.T., led by Prof. G. Giannopoulos, 5 April 2008.
48. «European Conference of Transport Institutes (ECTRI) convened by H.I.T. and Prof. G. Giannopoulos in Thessaloniki." Kerdos (Profit) newspaper, 4 April 2008.
49. «Transport research is an absolute necessity. Pan-European Transport convention (ECTRI) in Thessaloniki, hosted by CE.R.T.H./H.I.T..» By Niki Papanikolaou, Kerdos (Profit) newspaper, 4 April 2008.
50. «Brussels floor it in Transport. Up to 12 bn euros for research in Transport. Funding from Greek sources too little, according to Prof. G. Giannopoulos». The ECTRI convention in Thessaloniki, Typos Thessalonikis (The Press of Thessaloniki) newspaper, 4 April 2008.
51. Presentation of the driving simulator at the Thessaloniki Science Centre and Technology Museum. An interview with A. Tsioutras, by I. Minoudis, for the Kath'Odon (On the way) TV show, 4E TV, 5 March 2008.
52. Reference to H.I.T.'s participation in the two-day event for Thessaloniki's traffic problem. Thessaloniki newspaper, 4 February 2008.
53. Reference to H.I.T.'s participation in the two-day event for Thessaloniki's traffic problem. Typos Thessalonikis newspaper, 2 February 2008.
54. «Thessaloniki, as in… Milan? City tolls.» An interview with Prof. G. Giannopoulos, by Malama Kiakilidou, on the Makedonia TV news, 8 January 2008.

