



SUMMER SCHOOL ON

“INTELLIGENT TRANSPORT SYSTEMS: DESIGN AND SAFETY”

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Pyrénées Mountains, Saint Lary, France

CONTENT OF LECTURES AND CV OF SPEAKERS AND AFFILIATIONS

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Classification of ITS functions and interfaces: safety impact

The aim of this lecture is to provide a general overview of the available intelligent transport systems and the issues concerning their impact in terms of road safety. The lecture comprises three main parts.

More specifically ITS are presented within the use of carefully chosen classifications that describe their properties and capabilities. Such classifications allow for a structured presentation of intelligent transport systems and a more efficient comparison between the systems.

The second part of the lecture involves the description of the potential and anticipated impact of the use of the systems in terms of road safety. In this way the importance of further developing certain systems in comparison to others—when road safety is the main impact parameter—can be identified. Additionally, the different ways in which the impact of the use of ITS on road safety may be estimated, and the parameters that may be used for such an estimation are described.

Finally, a number of international studies on the impact of the use of ITS on road safety are presented. The characteristics of each study are described in detail and analysed. Their findings in terms of impact along with the methodology and the parameters that were used are presented.

Ioanna Spyropoulou is a traffic engineer at NTUA. She obtained her Diploma in Civil Engineering, at the National Technical University of Athens (NTUA), GREECE and her PhD in Transport at the University College London, UK in 2003. Since then she has been a Research Associate at the department of Transport Planning and Engineering, National Technical University of Athens (NTUA), GREECE. She is involved in national and FP6 EU research projects related to traffic engineering, traffic management, traffic safety and Intelligent Transport Systems and is involved in National related project "Accident risk investigation of drivers with high participation in road accidents". European projects include IN-SAFETY - "*Infrastructure and SAFETY*", HUMANIST - "*HUMAN centred design for Information Society Technology*". She is a member of the Hellenic Institute of Transport, Committee for Traffic Engineering, Technical Chambers of Greece.

NTUA The educational and research programme of the Department of Transportation Planning and Engineering of the School of Civil Engineering of the National Technical University of Athens covers the transport of persons and goods by all transport modes, from the phase of surveys, general planning and feasibility study, up to the implementation studies and the construction. More precisely, the Department covers topics, which have been grouped in the three main areas of Railways and Transport, Highway Engineering and Traffic Engineering. A relevant Laboratory operates in each one of these three topics. NTUA disposes a comprehensive research infrastructure for the support of its research activities. More precisely, NTUA disposes a set of large data bases with data on traffic and road accidents in Greece and in Europe, as well as several statistical analysis tools (software, models), etc.) and traffic simulation and assignment models. The real-time traffic map of Athens, operational since 1996 (more than 70 million hits) and the related services (web, VMS, SMS, etc.) are commonly used for the various road traffic and accident analysis activities of NTUA. Additionally, NTUA is also equipped with technical instruments like measuring devices and items for on-road tests. International and national contract research is combined with the research conducted under Ph.D. and Engineering Diploma Theses, to cover selected topics of transportation planning, traffic and highway engineering. Over the last 20 years, the Department of Transportation Planning and Engineering of NTUA has been involved in more than 50 international and 80 national research projects, totalling a budget of more than 11 million euros.