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Phone number:	+30 2610 996525	•
Paper/Presentation:	Scientific Paper	•
Present. duration:	20 min (including a 5 min Q&A)	•
PC/Mac	Presentation was prepared in Microsoft PowerPoint 2016	•
Requirements:	-	•
Presentation title:	An Energy Hotspot Identification Model for Heavily Congested Urban Networks	
<p>An operational model and a method that can be used for analyzing the current driving and surrounding traffic conditions are proposed in order to support the identification of energy "hot-spots" in heavily congested urban networks. The model can be macroscopic or mesoscopic and the method is based on the distribution analysis of velocity measurements that are recorded by GPS devices installed on vehicles. Following the analysis of the GPS velocity data from participating vehicles, a route, road or road segment may be identified as an energy "hot-spot". The energy identification considers the impact of velocity on real area-wide energy use, as revealed from the fleet of participating vehicles, and can be updated given new fleet management data. The updating process allows the model to be adaptive, and its output can therefore support eco-driving and adaptive network traffic management and control strategies to be implemented in the areas under study. The model is tested with real-world data from Cairo, Egypt, a city well-known for its heavy traffic conditions. The selected routes surround Cairo International Airport, which is the international airport of Cairo and the busiest in Egypt.</p>		

CV:

Prof. Stephanedes, BA, MSEE, PhD, PE is a specialist in Transportation and Traffic Theory, and Transport Telematics. He was for 20 years with the Faculty at the Dept. of Civil Engineering of the Univ. of Minnesota, where he became full Professor, and Director of Graduate Studies. He was funded by the U.S. Government, including the National Science Foundation (NSF), Federal Highway Administration (FHWA), Urban Mass Transportation Administration, Department of Energy, Office of Univ. Research of the U.S. Dept. of Transportation, Minnesota Dept. of Transportation and California Dept. of Transportation. Responsible for over 40 contracts funded by the above organizations in Transport and Traffic Theory, Artificial intelligence in transportation, Transport Modelling, Traffic Control Theory and Applications, Economic Evaluation of Transport Infrastructure, and Impact Analysis.

In the EU he spearheaded a major effort in identifying the impacts of telematics at DGXIII. He led the first EU Impact Analysis Workshop in Brussels that defined the framework for the introduction of ITS in the EU. Since 1997 he has directed numerous EU multinational research projects. He led the design and installation of the new Traffic Control Center and System Infrastructure in Attiki Prefecture.

Prof. Stephanedes is author or co-author of 5 books and over 200 publications, of reference chapters in the CRC Handbooks for Civil Engineering and for Engineering, member of the Transportation Research Board of the U.S. National Academy of Sciences, American Society of Civil Engineers, Intelligent Transportation Society of America, and Fellow of the Minnesota Supercomputer Institute among others. He has been Evaluator and Auditor for NSF and the IDEAS Program of the U.S. FHWA, and for Transport Telematics in the EU. He is on the Editorial Board of U.S. and EU journals, and General Secretary, ITS Hellas.

In 2009 Prof. Stephanedes received the U.S. Intertec-Braun International Award for his contributions in ITS. He chaired the first ITS International Conferences in Greece and Cyprus in 2011, 2012 and 2014. He is Director of the Environmental Engineering and Transportation Division, and of the ITS Program at the Department of Civil Engineering of the University of Patras.

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