

Special Session on Traffic and Transportation Systems

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Abstract:

Understanding of the decision making process of humans is an essential component of the transportation planning process. Given a set of stimuli in the form of transportation service alternatives, humans, individually or collectively, make certain decisions or choices. To predict these responses and choices, models of human stimulus-response pattern are used. Since Uncertainty is an inseparable part of the problem when dealing with human reasoning process, it is consequently crucial in problems of transportation planning and engineering.

The link between uncertainty and travellers' choices has become an important subject in recent years in view of the worldwide effort to advance methods and models for transportation planning. This special session of WSC14 devoted to "Application of Multivariate Logic in Transportation Problems", aims to review the recent progresses in the subject and to develop greater understanding of uncertainty treatment in transportation problems, traffic and transportation planning, as well as building a greater circle of researchers interested in this discipline.

Topics concern both theory and innovative applications to real world problems. Especially, advance in applications of Uncertainty Treatment, Possibility Theory, Fuzzy Logic, Soft Computing, Information and Choice forecasting, as well as Artificial Neural Networks, Genetic Algorithms and Genetic Programming, Software Agent Systems, Object Oriented Programming, Ant Colony Optimization, Rough Sets applied to transportation engineering and planning problems, with emphasis to Travel demand forecasting, Transportation planning, land use and policy making processes, Intelligent Transportation Systems.

For further information about this Special Session, please, contact the Session Chair, Michele Ottomanelli, e-mail: m.ottomanelli@poliba.it