

Partner Search Form

1. Project Proposal Information

Project Proposal Title	Modeling and forecasting of critical states in traffic flows
Project Proposal Acronym	MOFOCRICSTA
Keywords	traffic flows, critical states, statistical modeling, forecasting, optimisation of roads infrastructure
Abstract (Max. 2000 words)	The aim of the project is to develop intelligent systems for statistical modeling and forecasting of traffic flows on high-ways. The main objective is to develop a statistical basis for analysis of critical states, as for example at rush hours, adverse weather conditions, accidents, and installations of bottlenecks, that cause congestions and traffic jams. The final goal is to develop a module by which proper actions of roads services could be found by which unfavourable consequences of critical states could be minimized. The information created by the module should be of interest for professionals responsible for proper operation of roads infrastructure, winter service, traffic information and control centers, police, government, etc.
Project Description (Main Work Packages)	<ol style="list-style-type: none"> 1) Statistical modeling and forecasting of traffic flows by intelligent systems. 2) Theoretical development of physical models for description of traffic flow dynamics and influences of roads infrastructure. 3) Numerical simulations and study of critical phenomena in traffic 4) Approach to intelligent control of traffic flows based upon modeling and forecasting of critical phenomena. 5) Development of user modules, their testing and adaptation to various users needs.
Current Consortium (Partners, Organisation Types)	Research groups, roads administration, maintenance services, police and emergency services, political decision makers
Deadline for Responses	June 30, 2011

2. Profile of the Partners Sought

Organisation Type	
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Required Skills and Expertise	Expected from the fields: traffic modelling, development of intelligent systems, optimal and intelligent control of dynamic processes, analysis of critical phenomena, numerical modeling and exploration of unstable, non-linear and chaotic phenomena, development of computerized instrumentation
Role in the project	Possible: research, measurements and data provision, development and operation of roads infrastructure, information transmission
Other Requirements	

3. Project Proposer Information

Name of the Organisation	Amanova d.o.o., Technology Park 18, Ljubljana
Organisation Type	Ltd
Country	Slovenia
Fields of Activity	intelligent systems, sensors and new materials
Contact Person	prof. Igor Grabec, dr. Franc Švegl
Position in the Organisation	directors
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Previous FP Projects Participated	Roadidea, iCAR

Please send filled in form by 25. 3. 2011 to: fg.tec@uni-mb.si