

NEARCTIS

Excellence in co-operative traffic management



NEARCTIS is a Network of Excellence for Advanced Road Co-operative Traffic management in the Information Society. The project aims at bringing together most of the European academic community working on road traffic management, i.e. traffic modelling, traffic control, communications and location technologies. The final objective is to constitute a virtual research institute. A main focus of NEARCTIS will be to ensure, through the creation of a network of Associate Partners, a strong link between the teams being members of the network and transport sector stakeholders. Associate Partners will be involved in the activities of the network at various levels.

At a Glance

Project acronym: NEARCTIS

Project type: Network of Excellence

Project reference:

ICT- 2008-224272

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Partners from:

ERT, INRETS, DLR, EPFL, Imperial College London, TU Crete, TU Delft, University College London, University of Southampton

Start date: 01/07/2008

Duration: 48 Month

Total cost: 3,134.000 €

EC project funding: 2,500 000 €

Website: www.nearctis.org

further research and/or deployment activities are needed to fill current gaps.

Most of the gaps are likely to open up at the crucial intersection where scientific results are transferred into implementation activities, and will consist of complex issues that arise in the daily practice of transport operators.

More precisely, the topics to be included into the state of the art analysis belong to the following sets of activities:

Scientific Activities

- Traffic models and impact estimation models: traffic flow, safety, environmental and energy, etc;
- Optimisation and Control methods that can be applied to traffic management systems;
- Localisation and communications: Positioning and tracking, geographic information, vehicle-to-infrastructure (V2I) & vehicle-to-vehicle (V2V) communication;
- Deployment issues: System architecture, uncertainty, robustness interoperability;
- Evaluation methods (economic, technical, environmental, safety related).

Implementation Activities

- Global services for individual travellers: Information, control of co-operative systems, door-to-door guidance, fleet management, etc.
- Motorway corridors: Particularly driver information and route guidance.
- Dense urban networks: Coordinated signal control.
- Freeway management: Managed lanes, incident management.

Joint programme of Activities:

The NEARCTIS Joint programme of Activities is organised to develop various components of a virtual research institute.

The main goal is to set up a common and consistent research programme. This will involve description of the state of art in science and deployment activities, and of existing research capacities and resources, as well as the identification of areas where

- Shared multimodal/multi-users networks.

Other Activities

- Setting up of a common set of shared resources, including experimental facilities and simulators, data bases and software.
- Co-ordination with Associate Partners.
- Dissemination activities.
- Development of a network to support
 - in this sector - improved education and training for students, postgraduates, young professional, etc.
- Designing the Virtual Centre of Excellence (VCE).
- Overall project management.



The Associate Partners:

For NEARCTIS, a close integration of academic partners requires their number to remain within reasonable limits. It is however necessary to develop a strong relationship with several other constituencies. This requires the involvement of Associate Partners from various domains, including:

- The International academic community working on the research topics analysed in the network.
- The scientific community conducting research in topics not directly addressed by NEARCTIS: The human factor, economics, road safety, etc.
- The industrial sector concerned with relevant products and services: Car manufacturers, traffic systems manufacturers, SMEs', consultants.
- The public sector, including traffic management authorities, local authorities and motorway operators.

Associate Partners: What do they get?

Involvement of Associate Partners in the activities of NEARCTIS will depend on their specific interests.

The prime interest in joining the network is to have easier access to information concerning the field of traffic management through common data bases, participation in network activities (working groups,

conferences or workshops), privileged access to some of the resources shared by the network such as databases, software etc. Association with NEARCTIS is also an opportunity to participate in the definition of research programmes.

For academic teams, it is an opportunity to get involved in research programmes proposed jointly with the network: NEARCTIS itself does not fund research, but is a platform to submit joint proposals to research calls.

For academic teams recently interested in traffic management, participation may also be a way of tapping experience and getting training.

For local authorities or for industrial partners, the network may be an opportunity to set up new innovative projects.

Associate Partners: How Do They Contribute?

The main contribution of Associate Partners is their participation in thematic or application-related working groups. These groups are in charge of drafting research programmes or of identifying the need for application-related projects in specific scientific fields or applications.

Associate Partners also take part in the networking actions of NEARCTIS such as conferences, training activities etc.

Network Duration:

Duration of the network established by NEARCTIS beyond NEARCTIS' formal lifetime may take the form of a virtual centre of Excellence (VCE). In addition to the elements mentioned above, developing this VCE will require a financial structure, including contributions from partners and funding possibilities.

For further information:

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