

BAY-LOGI – your business partner in intelligent transport systems



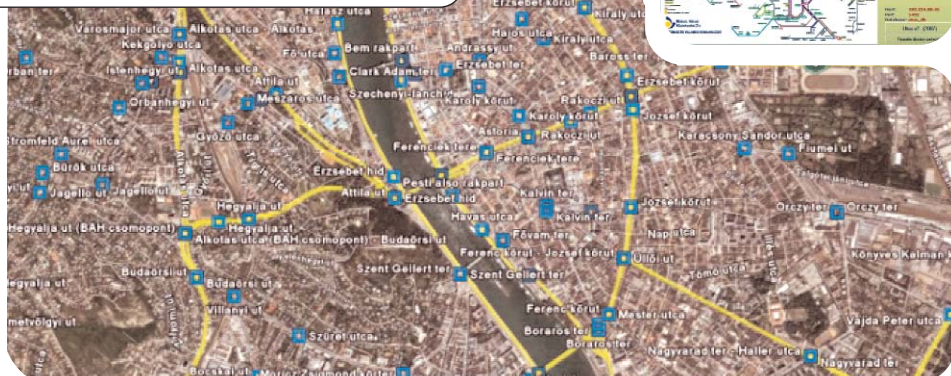
WHO WE ARE?

Bay Zoltán Foundation for Applied Research is the largest and most successful non-profit applied research organization in Hungary with several business area specified institutes. The Institute of Logistics and Production Systems (BAY-LOGI) has had a long lasting cooperation with the academic and business sphere. The new and modern laboratories make able this institute to solve high level technological and logistical problems.

BAY-LOGI hosts the Department of Mechatronics that has become a leading actor in the region in the area of intelligent transport systems and especially in M2M based embedded terminal techniques. Adapting the practical requirements, the department takes a significant role in the field of information technology developments in the region and cooperates with the main stakeholders. Several significant projects are running at the same time in the fields of telecommunication researches, logistical information systems and expert decision supporting systems.

WHAT MAKES US A GOOD PARTNER

- Expertise in intelligent transport systems and especially in M2M based embedded terminal techniques
- Highly qualified and reliable human resources
- Co-operative attitude: Having gained experience in previous national and international research and business projects
- Innovative thinking: the institute show a very creative way of scientific thinking.
- Flexibility and dynamism: Young scientists ensure a dynamic attitude and flexible adaptation to new scientific and technological requirements.
- Long co-operation with SMEs and larger companies



COLLABORATION INTERESTS

The department is interested in participating in projects under EU ICT programmes and in other international projects involving developments in logistical information systems, telemetric, its applications and in related services. Other potential areas are electronic identification of vehicles, monitoring of motor-vehicles, SMS information systems, RFID development and applications.

RESEARCH AREAS

- information technology
- mechatronics
- measurement and control systems
- cordless communication
- M2M based technologies
- intelligent transport systems
- TMC systems
- RFID

MAIN ACHIEVEMENTS

Telecommunication developments have already existed in the palette of the institute independently or integrated with other fields. As a result, there has been such R&D projects started that develop complex information systems meeting the requirements of the market by covering several fields (telecommunication, expert systems, etc.). One of the most important projects was the development of a system supporting operative intervention and timetable management at the urban transportation company based on measurement on the lines of the local buses. This was implemented in co-operation with Knorr-Bremse Ltd. and the Miskolc City Transportation Company.

REFERENCE PROJECTS

The institute and its departments have participated in several national R&D project funded by the Structural Funds. The institute has put emphasis also on R&D projects for its business partners.

Development of electrical ticket-system with Internet and mobile phone based technologies (Economic Competitiveness Operational Programme) GVOP-3.1.1.: The aim of this system to modernize public transport and to elaborate a ticket payment system that makes it possible to use virtual tickets on a mobile phone. BAY-LOGI participated as main R&D partner in the project.

Traffic monitoring system (Jedlik Anyos Programme): The aim of the project is to develop a monitoring system for the City of Miskolc and several TMC based services in order to enhance the quality of services provided by the Local Transportation Company.

Establishing passenger-weight monitoring system Owing to this development work, Miskolc City is the first in the whole country where the vehicle fleet will be base of the public transport optimization, because using these buses data about passenger transport both in time and space are available. BAY-LOGI participated as main R&D partner.

Innovative mobile transfer service (M2M GATEWAY) Development of non-platform (non-modern) critical separate M2M data transfer service and measurement data collector instrument family. This project was private development of the institute.

Communication based on RFID identification One of the most important feature of the system is to make intercom and mobile (GSM/GPRS) communication so the identification has become distance free. This project was private development of the institute.

OTHER INFORMATION

Name of the research department: Department of Mechatronics

Name of organization: Bay Zoltán Foundation for Applied Research

Legal structure of organization: Foundation

Country: Hungary

Number of researchers in your department/research centre: 8/50

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For further information please

look at www.bayzoltan.hu

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