Institut "Jožef Stefan" Ljubljana, Slovenija

TECHNOLOGY OFFER

DETECTION OF PHONING WHILE DRIVING – SYSTEM FOR DETECTING A PERSON DRIVING A VEHICLE WHILE USING A MOBILE COMPUTING DEVICE

Fields of use

Other telephone related, Specialized Turnkey Systems, Artificial intelligence related software, Artificial intelligence programming aids, Other Artificial intelligence related, Artificial Intelligence (AI), Information Technology/Informatics, User Interfaces (Usability), Smart Appliances, System and transportation

Current state of technology

Concept stage - The proposed methods have been tested. The technology is ready for prototype development, integration and proof of concept testing.

Type of cooperation

Technical cooperation and/or licensing

Intellectual property

Patent(s) applied for but not yet granted, Secret Know-how

Developed by

Jožef Stefan Institute

Contact

Jožef Stefan Institute,
Jamova cesta 39,
1000 Ljubljana,
Slovenija
Phone: + 386 1 47 73 224
E-mail: tehnologije@ijs.si
Web site: http://tehnologije.ijs.si/

Summary

Slovenian researchers have invented a solution for detecting a person driving a vehicle while using a mobile computing device by making use of sensor data provided by mobile computing device. Researchers are looking for companies interested in further development of the commercial application and commercialization of the invention.

Description of the invention

The system for detecting a person driving a vehicle while using a mobile computing device is a patented solution. The solution aims at helping governments and private interested organizations in restricting mobile phone use while driving which is a well know road safety concern.

A system for detecting a person driving a vehicle while using a mobile computing device is based on the detection of movement patterns being attributable to a movement of a vehicle and movement patterns being attributable to a person using the mobile computing device.

A relation is established between both movement patterns and based on their relation it is determined whether a person is driving a vehicle while using a mobile computing device. The inventors are internationally recognized experts in the fields of ambient intelligence, machine learning and data mining, language and speech technologies, computational intelligence and agent and multiagent systems. The authors have experience in a wide range of ambient intelligence tasks, for example:

- Smart home applications focused on energy efficiency, security and ease of use
- Activity recognition (lying, sitting, standing, walking, running, cycling, etc.)
- Detection of unusual behavior caused by health or security issues
- Fall detection
- Recognition of diseases
- Human energy expenditure estimation
- Detection of unusual environmental events

Main Advantages

In contrast to other solutions

- Completely autonomous solution (only smart phone is needed).
- Employment of context-based reasoning methods enables more reliable and

KONZORCIJ ZA PRENOS TEHNOLOGIJ IZ JRO V GOSPODARSTVO

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION, SCIENCE AND SPORT

The investment is co-financed by the Republic of Slovenia and the European Union under the European Regional Development Fund.

Institut "Jožef Stefan" Ljubljana, Slovenija

- more robust detection whether a person is driving a vehicle while using a mobile computing device.
- Observing a relation of vehicle movement patterns and movement patterns of a person using a smart phone is a novel approach.

Partner Sought

The research institute is looking for:

- Partners for technical cooperation and/or licensing in the invention.

The proposed invention has the potential to be used in various business models which include different roles and responsibilities of the partners sought:

- Companies in various sectors with good contacts and business orientation in transportation safety.
- Telecommunication service providers for integration of the solution into their existing service portfolio.
- Mobile computing industry for development of the solution and introduction of the system in the target local regions with cooperation with local authorities.
- Governmental and road safety organizations for promotion of the solution on the national or regional level with the suitable regulation for improvement of road safety.
- Insurance companies for promotion and possible integration of the solution into their insurance products; e.g., discounts for using an app for reducing risk of accidents.
- Automotive industry for possible integration of the solution into vehicles.

Authors of the invention would prefer to transfer part of the further development (after proof-of-concept stage) to a business partner with technical expertise, who would take care of the engineering and the client support, as well as marketing and sales in the specific markets.

KONZORCIJ ZA PRENOS TEHNOLOGIJ IZ JRO V GOSPODARSTVO

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION, SCIENCE AND SPORT

The investment is co-financed by the Republic of Slovenia and the European Union under the European Regional Development Fund.