



Media Release
12 December 2007

NICTA signs software licensing deal for Smart Cars research

NICTA, Australia's Information and Communications Technology (ICT) Research Centre of Excellence, has signed a software licensing deal with Sydney road infrastructure company Pavement Management Services (PMS).

The three-year agreement will enable Pavement Management Services to rapidly commercialise research from NICTA's Smart Cars Project, which is based at NICTA's Canberra Research Laboratory.

The Smart Cars project uses computer technology, particularly image analysis, to enable a safer driving experience. The goal of the project is to provide input to the driver about road conditions, obstacles and potential hazards, letting the driver retain control of the vehicle while benefiting from alerts from the computer system.

Those same NICTA-developed techniques are to be used by Pavement Management Services to automatically detect, recognise and geographically pinpoint road signs for highway and pavement management, using video-footage shot from survey vehicles.

"We anticipate commercialising the software from NICTA's Smart Cars project, which uses advanced recognition technology and algorithms, within 12 months" Pavement Management Services CEO John Yeaman said.

"The road sign system using NICTA recognition technology is about five times faster than using humans to view the footage and log reports, and a quantum leap in accuracy," Mr Yeaman said.

"We are very excited to be working with Pavement Management Services and anticipate the relationship will help us to further our research in this area," NICTA Researcher and Smart Cars Project Leader Dr Lars Petersson said.

The NICTA's Smart Cars project will be demonstrated as part of the Intelligent Transport Systems (ITS) exhibit to VIPs at the opening of the new Canberra Research Laboratory on 12 December 2007. The other five projects include:

- **InterfereX** - aims to develop an advanced modem for an OFDMA-based 4G mobile wireless system using patent-pending receiver techniques to double receiver sensitivity. This will result in substantial improvements in wireless network coverage and data capacity throughput.
- **Body Area Networks of Embedded Systems for Humans (BANESH)** - examines the use of small inexpensive sensors, such as micro processors and miniature transmitters, to interpret data from small, smart devices used for biometric monitoring into useful information.

- Statistical Machine Learning (SML) – NICTA’s SML researchers are developing methods for creating intelligent devices with the ability to learn. The ultimate aim is to build intelligent systems that adapt to user needs without needing a programmer to encode rules about how to act.
- Medical Imaging – The Automated Anatomical Structure Extraction for Diagnosis and Population Norms Project uses mathematical modelling to create and analyse 3D images of the hippocampus region of the brain to help diagnose conditions such as Alzheimer's, epilepsy and schizophrenia.
- EGovernment - addresses the business and technology needs of federal and state governments with a particular focus on interoperability and business alignment. A range of software infrastructure technologies (including software architecture design; project scoping, sizing, and estimation; and performance assessment) are currently being developed and deployed across multiple agencies in major business transformation projects.

About NICTA

National ICT Australia (NICTA) is a national research institute with a charter to build Australia’s pre-eminent Centre of Excellence for information and communications technology (ICT). NICTA is building capabilities in ICT research, research training and commercialisation in the ICT sector for the generation of national benefit.

National ICT Australia is funded by the Australian Government as represented by the Department of Communications, Information Technology and the Arts and the Australian Research Council through *Backing Australia’s Ability* and the ICT Centre of Excellence program.

NICTA was established and is supported by its members: The Australian Capital Territory Government; The Australian National University; NSW Department of State and Regional Development; and The University of New South Wales. NICTA is also supported by its partners: the University of Sydney; University of Melbourne; the Victorian Government; the Queensland Government; Griffith University; Queensland University of Technology; and The University of Queensland.

About Pavement Management Services

PMS is a specialist high technology civil engineering consultancy in the field of road infrastructure design and maintenance. Since our beginnings in 1981 we have grown from a one man consultancy to a team of over 42 engineers, technicians and support staff who work throughout Australia, New Zealand, Philippines, Qatar and the United Arab Emirates.

We are an ‘end-to-end’ solution provider for pavement and highway management. End-to-end because we have the experience and the tools to undertake:

- Field Data Collection (Pavement, Footpath, Kerb & Channel and Assets)
- Engineering Analysis & Modelling
- Design Specification
- Forensic Investigation & Contract Resolution
- Specifications for Contract Documentation
- Construction Quality Assurance, and
- Safety Inspections.

This consultancy has set the standard internationally and this global fledgling industry now bears our name...Pavement Management.

For further information:

Kelly Mills
 Communications Specialist, NICTA
 Ph: 02 8374 5489 or 0448 434 858