



Australian Government
Australian Sports Commission



MEDIA RELEASE

28 December 2006

And the winner is ... Australian sports! NICTA and the ASC to use technology to improve athletes' performance

National ICT Australia (NICTA), Australia's Centre of Excellence for information and communications technology (ICT) and the Australian Sports Commission (ASC) have entered into a cooperative research program intended to develop technologies for sporting applications.

Research planned to be conducted under this agreement aims to improve the capabilities of devices used to measure and enhance the sporting performance of Australian athletes across a wide variety of sports.

The ASC manages the Australian Institute of Sport (AIS), an internationally recognised sports centre which gives Australian athletes access to expert coaching, world-leading sports science and medicine services, and state-of-the-art sporting facilities.

NICTA will work with the ASC and AIS to research better ways to use ICT to help improve the performance of these athletes.

"We are proud to be working with the ASC and AIS who are global leaders in the field of sports training," NICTA chief executive officer Dr David Skellern said.

"We are confident that by working together with the ASC and the athletes at the AIS, our research can be applied to sports training to further drive the success of Australia's sporting teams," he said.

"This collaboration formalises an intermittent relationship our sports scientists have had with NICTA researchers in the past," ASC chief executive officer Mark Peters said.

"The emphasis the AIS place on excellence extends to our research partners and NICTA is a national and world leader in ICT. Our sports scientists and researchers are excited about rubbing shoulders with NICTA's experts on a number of projects and pushing sports science to new horizons."

The research is based on the increasing use of ICT training and equipment solutions to assist the coaches of elite athletes.

"To remain competitive at the highest levels, Australian coaches need to use wisely the most advanced ICT available," AIS director Professor Peter Fricker OAM said.

“NICTA's core capabilities in data clustering, optimisation, visual pattern recognition, planning and scheduling under uncertainty and wireless signal processing will be used to assist in the enhancement and development of training methodologies and equipment.”

The collaboration between the two organisations is planned to include work on projects with the rowing and swimming teams.

In the rowing project, AIS scientists will work together with researchers from NICTA's Wireless Signal Processing Program to improve the capability of the devices for the transmission of wireless information from a small device on the rower's boat to a device the coach can use to interpret the information. The wireless transmission of this information is inherently difficult because the signal needs to be transmitted in real-time, close to the water surface and for a considerable distance or range. The research teams will work together to improve the data transmission rate and range of these devices.

The swimming project combines the expertise of researchers from the AIS's Aquatic Testing, Training and Research Unit and NICTA's Wireless Signal Processing and Systems Engineering and Complex Systems Programs. The project also involves the transmission of data, from a swimmer to a device at the side of the pool to provide important information on the effect of hand movement on the swimmer's performance. This project will need to overcome the challenges of transmitting data through water.

“This is a significant project for NICTA,” Dr Skellern said. “The AIS has built an outstanding competence in sporting success over the past 25 years. As we build an institute for Australia's ICT success, we hope through this association to gain valuable insights into the operations of one of Australia's most successful discipline-based institutes.”

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.

NICTA is funded by the Australian Government's 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 Queensland University.

About the Australian Sports Commission

The ASC is the Australian Government body that manages, develops and invests in sport at all levels in Australia. The ASC funds and works closely with a range of national sporting organisations to ensure sport is well run and accessible so that everyone can participate and enjoy the benefits. It also works with these organisations and through the AIS - which is a division of the ASC - and state and territory institutes and academies of sport, to develop sporting excellence at the elite level..

For further information

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