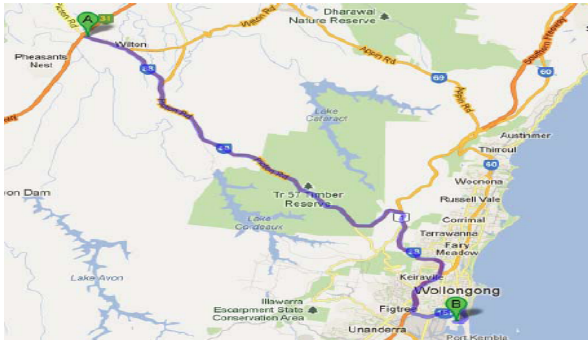


Intelligent Transport Systems

Communities spend tens of billions of dollars every year on transportation. NICTA is playing a central role in the application of ICT to transport, making transportation safer, more productive and environmentally friendly.

CITI: Cooperative Intelligent Transport Initiative



A 42km Cooperative - Intelligent Transport System (C-ITS) test bed will operate from Port Kembla to Picton in NSW.



Freight vehicles 'talking' to each other and with roadside infrastructure.

NICTA's Approach

- Cooperative intersection collision avoidance systems
- Weather, work zone and rest area advisories
- Calibration of network models through a world-first freight vehicle C-ITS test-bed, based in the Illawarra region of NSW, linking 3 intersections over a 42km route and involving 30 trucks.

Industry Engagement

The CITI project is managed by NICTA, conceived by Transport for NSW, and working with academia and private industry.

Impact

- Reducing the risk of collision
- Increasing transport efficiency.

Data Driven ITS: Deriving transport intelligence from sensors

NICTA's Approach

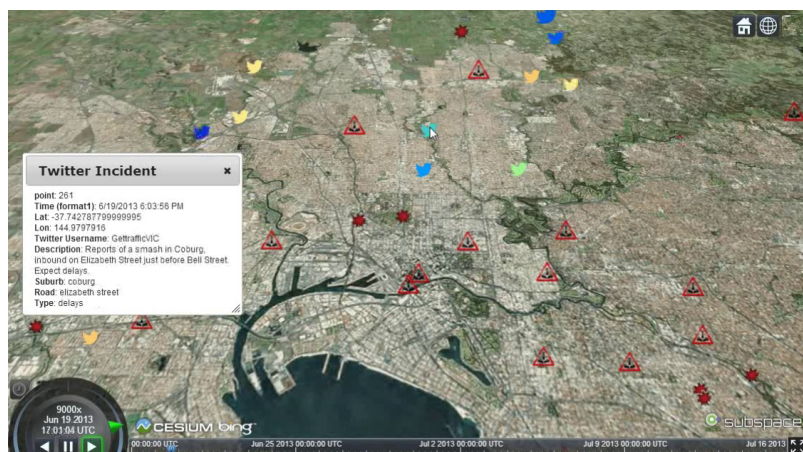
Using NICTA's Machine Learning expertise to:

- Combine traffic and transport data from all available sensors
- Develop data driven models for planning and operations that span large spatio-temporal scales
- Incorporate new sensor types without the need to rebuild models from scratch.

Industry Engagement and Impact

Working with Australian Roads agencies to deliver better and more timely information:

- Enabling travellers to make more informed travel choices
- Enabling planners and decision makers to develop robust fact-based transportation models.



Visualisation tool based on multiple data sources of on road incidents, including the incidents detected from the Twitter feeds via NICTA technology.

Contact

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Leading the Way

NICTA is Australia's Information and Communications Technology (ICT) Research Centre of Excellence, driving innovation through high quality research, research training, commercialisation and contract research.

NICTA has the largest concentration of ICT researchers in Australia. Our research focuses on use-inspired basic research that benefits industry, the community and the national interest.

Since NICTA's inception in 2002, NICTA has built strong research capability in:

- Software Systems
- Networks
- Machine Learning
- Computer Vision
- Optimisation.

Our Business Teams are the market focus of our research capabilities:

- Broadband and the Digital Economy
- Infrastructure, Transport and Logistics
- Security and Environment.

NICTA researchers work on Business Team projects supported by:

- An Engineering and Technology Development Team
- IP, Legal and other professional support.

Our work as a world-class research institute and Centre of Excellence in science and innovation brings together many of Australia's and the world's top ICT researchers. NICTA provides them with the facilities and support they require, making imagination to impact a reality.

NICTA's unique approach fosters and develops ICT research. We work closely with both industry and other research institutions to solve problems and make breakthroughs in ICT with real impact. NICTA's focus on use-inspired research means our projects have direct relevance to the challenges faced by business, government and individuals around the world. The result is breakthrough technologies that provide commercial opportunities and have a positive impact on Australia's export earnings.

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