



# Recent advances in security technology

**September 2006, 429 pages**

The 2006 RNSA Security Technology Conference, held in September 2006, was the second organized by RNSA to identify the valuable contribution that science, engineering and technology can make to enhance the nation's security. The conference showcased cutting edge research and accomplishments.

This volume contains the refereed papers from the Conference.

The papers are:

## Development of the RNSA transport strategy for Australia: considerations for passengers and freight

*M.A.P. Taylor, University of South Australia*

## The Success and Failure Factors for Incident Management Systems

*Dependable Property Services Pty Ltd, Melbourne and On Line Risk Management (ORM) Pty Ltd*

## The Risk Transaction Cycle, And Its Role In National Security

*Richard A. Nunes-Vaz & Svetoslav Gaidow, Defence Science & Technology Organisation, Adelaide*

## A Framework for Estimating Economic Costs and Human Casualties of Hazards

*L. Marquez, A. Ahmed & R. Kusumo, CSIRO Mathematical and Information Sciences*

## An Update on Full Scale Blast Tests in Woomera, 2006

*R. Lumantarna, A. Gupta, P. Mendis & T. Ngo, University of Melbourne*

*J. Ramsay, Ballistic Consultant*

## Polymer Reinforced CRC For Improved Performance Under Close-In Detonations

*B. Riisgaard, NIRAS Consulting Engineers and Planner, Denmark and Centre for Protective Structures and Materials, Technical University of Denmark and APTES, The University of Melbourne (Visiting Researcher)*

*A. Gupta, P. Mendis, T. Ngo, Advanced Protective Technology for Engineering Structures, Dept. of Civil & Environmental Engineering, The University of Melbourne*

*A. Elkjaer, Composhield A/S, Denmark*

## An engineering-level tool for predicting airblast loads behind blast perimeter barriers and their effectiveness

*A.M. Remennikov, University of Wollongong*

*T.A. Rose, Defence College of Management and Technology, UK*

## Blast Reliability Curves and Pressure-Impulse Curves: Complementary Information for Decision Makers

*M.D. Netherton & M.G. Stewart, University of Newcastle.*

## Response of Plates to Blast Loading in Inelastic Range

*Gregory Szuladzinski, Analytical Service Pty Ltd, Sydney*

## Numerical Study of Interactions between Shock Wave and RC Columns

*Yanchao Shi, University of Western Australia and Tianjin University, Tianjin, China*

*Hong Hao, University of Western Australia*

*Zhong-Xian Li, Tianjin University, Tianjin, China*

## Ductal® - An Ultra-High Performance Material for Resistance to Blasts and Impacts

*Brian Cavill and Dr Mark Reberntrost, VSL Australia Pty Ltd, Sydney*

## Capability Assessment for Communications and Information Systems in Critical Incident Environments

*S.P. Beard, University of NSW @ ADFA and KAZ Technology Services*

## How the concept of ethnicity can inform our understanding of the potential impact of security-related technology upon work practices and society

*P. Bennett & L. Resnyansky, Defence Science & Technology Organisation*

## Balanced Target Hardening: Protecting Australian Academic Institutions from Terrorism

*Dr. Alexey D. Muraviev, Curtin University of Technology*

## Melbourne as a Terrorist Target and the Human Response

*Luke Howie, Monash University, Australia & Australian Homeland Security Research Centre*

## Understanding Human Attitudes to Location-Based Counter-Terrorism Measures

*Holly Tootell, University of Wollongong*

## Mitigating the threat of counterfeiting to international security through public awareness

*E. Petraki & Z. Bo, University of Canberra*

*H.A. Abbass, Defence and Security Applications Research Centre (DSA), UNSW@ADFA*

## Government responsibilities for the monitoring of security and privacy issues around new information technologies - a French-Australian comparison

*A Gupta, Gwendal LeGrand, GET/Télécom-Paris (ENST), LTCI-UMR 541 CNRS, France*

*Lynn M. Batten, Deakin University, Melbourne*

## A new manifesto for smartcards as national information infrastructure

*Stephen Wilson, Lockstep Consulting Pty Ltd*

## Detection of Concealed Threats using sub-THz Imaging Technologies

*D. Hellicar & G. P. Timms, CSIRO ICT Centre*

## The AVIAN Flu Tracker- a Location Service Proof of Concept

*Katina Michael, Blake Stroh, Owen Berry, Adam Muhlbauer, Tim Nicholls, School of Information Technology and Computer Science, University of Wollongong*

## Ensuring the Integrity of Australia's e-Court Process

*Dr. Lauren May and Mark Burdon, Information Security Institute, Queensland University of Technology*

## The Requirement for Australia to have an Enhanced National Video and Imagery Recognition Surveillance System

*Ken Webb, Edith Cowan University*

## Computer Profiling to Assist Computer Forensic Investigations

*Andrew Marrington, George Mohay, Hasimukh Morarji, Andrew Clark, Information Security Institute, Queensland University of Technology*

## Datatrace DNA®: A Rapid, Secure, Field-Based System for Tracking and Authentication of Sensitive Materials

*M. Bown, P. Osvath, & A. Launikonis, CSIRO Molecular and Health Technology (CSIRO), Ian Wark Laboratories*

## Information Security and Civil Society Organisations

*Mark Carey-Smith and Lauren May, Queensland University of Technology*

## A Multi-modal Biometric System for User Authentication

*Vamsi Krishna Madasu, Queensland University of Technology*

## An Adaptive Rule-based Intrusion Detection Architecture

*K.Shafi, H.A.Abbass & W. Zhu, Defence and Security Applications Research Centre, University. of New South Wales @ ADFA*

## Reliable Face Recognition for Intelligent CCTV

*Ting Shan, Brian C. Lovell, Shaokang Chen and Abbas Bigdelli, National ICT Australia*

## Smart Cameras: Enabling Technology for Proactive Intelligent CCTV

*Abbas Bigdelli, Brian C. Lovell and Ting Shan, National ICT Australia*

Emergency Management and Security Research in Australia, New Zealand and the South Pacific:  
Survey and Comparison to Europe

Andreas Meissner, National ICT Australia

Resource Messaging for Emergencies

Karen Henriksen & Renato Iannella, National ICT Australia

Combining Commercial Networks for Optimum Large Scale Emergency Communications: Challenges  
and Opportunities

S. Russell, Queensland University of Technology

Secure Tracking for Critical Applications: Communications, GPS and Future Galileo Services

C.Wullems & O.Pozzobon, Qascom S.r.l., Italy

K.Kubik, University of Queensland,

Adaptive and resilient systems for emergency response

R. Robinson & J. Indulska, National ICT Australia Ltd

Wireless Mesh Networks for Public Safety and Disaster Recovery Communications

Marius Portmann & Asad Amir Pirzada, National ICT Australia Ltd

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J. Smith, R. Gill & A. Clark, Information Security Institute, Queensland University of Technology

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