

Summary of Discovery Projects Proposals for Funding to Commence in 2009

Victoria

Deakin University

DP0987421 Mr X Geng; Prof KA Smith-Miles; Prof Z Zhou

Approved Project Title **Automatic Human Age Estimation Based on Visual Information**

2009 : \$ 85,000

2010 : \$ 80,000

2011 : \$ 80,000

Primary RFCD 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

APD Mr X Geng

Administering Organisation Deakin University

Project Summary

Age verification is important for many security applications including passport control for border security, and protecting children from adult websites, venues, or products. Accurate, reliable and practical age estimation or verification technologies would be of enormous benefit for 'Safeguarding Australia'. The ability of a machine to estimate a person's age and provide an age-appropriate interface also has benefits for the young and old in our society. The outcome of this project, practical technologies for automatic human age estimation based on visual information, will dramatically change the current (non-technology based) methods of age verification and create new opportunities for customised human-machine interfaces.

DP0986641 Prof B He

Approved Project Title **The Democratization of the Rising China through Deliberative Democracy**

2009 : \$ 40,000

2010 : \$ 55,000

2011 : \$ 55,000

2012 : \$ 25,000

2013 : \$ 40,000

Primary RFCD 3601 POLITICAL SCIENCE

Administering Organisation Deakin University

Project Summary

This project falls within the Research Priority 4: Safeguarding Australia. Its benefits include strengthening Australian leadership in deliberative democracy, developing deliberative democratization in China which is vital for the security and fundamental interest of Australia, and offering new strategies of deliberative democratization for the international democracy-promotion community. It will contribute to a balanced and sophisticated understanding of Chinese democratization; enhance cooperation between Australian researchers and their counterparts in China; and contribute to global democracy-promotion activities by developing a new field of deliberative democratization.

DP0987534 A/Prof D Kingsbury; Dr MP Leach

Approved Project Title **After the crisis: Nation-building challenges in East Timor**

2009 : \$ 41,000

2010 : \$ 21,000

2011 : \$ 43,000

Primary RFCD 3601 POLITICAL SCIENCE

Administering Organisation Deakin University

Project Summary

Given the substantial commitment of International Stabilisation Force intervention, nation and state building in East Timor remains a high priority for Australian policy makers. This project will examine three key nation-building agendas in post-crisis East Timor, focusing on the key areas of decentralisation of state authority, evolving relationships with traditional authorities, and post-crisis conflict resolution programs, over the period of 2009-11. In so doing, the project will contribute to a better understanding of antecedent factors to state failure, linking directly with recent Australian government policy concerns over 'fragile states', and their potential to destabilise the regional security environment.

Summary of Discovery Projects Proposals for Funding to Commence in 2009

DP0985364 Dr T Lin; Prof X Wang

Approved Project Title **Field-Enhanced Electrospinning for Fine and Uniform Nanofibres**

2009 : \$ 119,000

2010 : \$ 119,000

2011 : \$ 113,000

Primary RFCD 2903 MANUFACTURING ENGINEERING

Administering Organisation Deakin University

Project Summary

This project will result in a new platform technology to produce very fine and uniform nanofibres that can be used in a range of advanced applications. It will further strengthen our leading position in the field of nanofibre technology, and contribute to the National Research Priority area of Frontier Technologies for Building and Transforming Australian Industries. Australia already has niche expertise in nanomaterials. This project will significantly enhance our international standing in the field. There is a growing list of local companies that are interested in exploring the production and application of nanofibrous materials also.

DP0987792 Dr KL Murphy

Approved Project Title **Managing compliance with procedural justice: The role of motivational postures, legitimacy and emotion**

2009 : \$ 60,000

2010 : \$ 25,000

2011 : \$ 35,000

Primary RFCD 3801 PSYCHOLOGY

Administering Organisation Deakin University

Project Summary

Regulatory authorities exist to ensure that members of the public comply with their obligations under the law. At the same time, however, regulators should not exercise their authority in ways that result in the alienation of the public. Using social science methodology, this project will examine the role that procedurally fair regulation can play in promoting trust and confidence in authorities. The national and community benefits of this project will include ascertaining how greater levels of cooperation and compliance with regulatory decisions and laws can be facilitated; particularly among those who may feel disgruntled with their experiences with authority.

DP0987101 Dr K Vincs; Dr VH Mak; A/Prof RM Smith

Approved Project Title **Capturing Dance: using Motion Capture to enhance the creation of innovative Australian dance**

2009 : \$ 200,000

2010 : \$ 27,000

2011 : \$ 100,000

Primary RFCD 4101 PERFORMING ARTS

Administering Organisation Deakin University

Project Summary

Australian dance companies are dependent on income derived from international markets for their continued survival and growth. Their ability to compete in the global arts market depends on their ability to remain on the leading edge of choreographic development world-wide. This study will provide Australian dance artists with new tools and technologies to enhance their creation of new and innovative dance, ensuring their ability to secure international profile and market presence, and contributing to dance internationally a new understanding of, and new technologies for creating, innovative dance.

Summary of Discovery Projects Proposals for Funding to Commence in 2009

DP0987677 Prof DR Walker

Approved Project Title **Australia's Asian Futures: A Cultural History, 1972 to the present.**

2009 : \$ 60,000

2010 : \$ 60,000

2011 : \$ 60,000

Primary RFCD 4301 HISTORICAL STUDIES

Administering Organisation Deakin University

Project Summary

Relations with Asia are vital to Australia's prosperity and security. This project places in historical context evolving understandings of what the 'region' has meant to Australians from the 1970s to the present. It will clarify the processes by which Australia has adapted to Asia, and points of resistance to engagement. By examining the representations of politicians, journalists, Asianists, and travel writers, this study will seek to explain how threats to security have been perceived over time, and the interplay between popular and elite representation. An analysis of how threats from political Islam have been understood will inform a wider history of threat perceptions extending from the mid-nineteenth century to the present.

DP0986955 Dr G Williams

Approved Project Title **The role of optimism in collaborative problem-solving in mathematics: Building problem solving capacity**

2009 : \$ 100,000

2010 : \$ 70,000

2011 : \$ 70,000

2012 : \$ 58,943

Primary RFCD 3302 CURRICULUM STUDIES

APD Dr G Williams

Administering Organisation Deakin University

Project Summary

Integration of psychological and educational approaches is the strength of this proposal. The notion that student optimism may be key to strengthening problem-solving capacity in mathematics is new and exciting. Creative thinking, problem-solving, and mathematical proficiency are surely critical resources for Australia's future. Understanding how these human resources are nurtured and enhanced informs pedagogies to increase academic performance. Whilst providing pedagogical insights, this study also informs the building of adolescent well-being, and the stimulating of interest in mathematics in 'ideas workers' for Australia's future-three outcomes advantageous to Australian society and the economy.