

Summary of Linkage Projects Proposals for Funding to Commence in 2009

Victoria

RMIT University

LP0990691 Prof A Akbarzadeh; Prof JY Tu; Dr J Andrews

Approved Project Title **Dual Geothermal System for Fresh Water Production and Power Generation**

2009 : \$ 60,000

2010 : \$ 110,000

2011 : \$ 100,000

2012 : \$ 50,000

Primary RFCD 2405 CLASSICAL PHYSICS

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)

Greenearth Energy Limited

Administering Organisation RMIT University

Project Summary

The dual geothermal system for fresh water production and power generation developed in this project will use relatively low-temperature geothermal resources and assist in supplying domestic fresh water as well as electricity to small communities remote from the main electricity grid without any associated greenhouse gas emissions. The technology developed will provide an opportunity for industry development, employment creation and export potential through commercial manufacture in Australia of small to medium scale dual geothermal systems (e.g., 0.1 MW, 75000 litres fresh water per day).

LP0990509 Prof PW James; Prof L Padgham; A/Prof JA Thom; A/Prof H Deng; Dr W Cope; Asst Prof M Holden

Approved Project Title **Accounting for Sustainability: Developing an Integrated Approach for Sustainability Assessments**

2009 : \$ 75,000

2010 : \$ 190,000

2011 : \$ 235,000

2012 : \$ 120,000

Primary RFCD 3701 SOCIOLOGY

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)

FujiXerox Australia

Common Ground Publishing

Cambridge International College

Microsoft Australia

City of Melbourne

Angusta Systems

Administering Organisation RMIT University

Project Summary

In today's challenging world, we need to find new ways to sustain our cities, communities and organisations. In the past decade, various bodies have developed highly sophisticated indicators for monitoring and measuring sustainability. However these indicators often become detached from practical tasks at hand - managing businesses, preserving the environment, or promoting social and cultural well-being. This project will develop a framework and software system for evaluating and applying indicators in common planning and reporting situations. The project will benefit Australian organisations by a) developing clear, practical sustainability goals; b) lowering cost of reporting compliance and c) improving sustainability practices.

Summary of Linkage Projects Proposals for Funding to Commence in 2009

LP0990794 A/Prof S Setunge; Prof RR Wakefield; Dr G Zhang

Approved Project Title **A reliability based approach for sustainable management of community buildings**

2009 : \$ 50,000

2010 : \$ 100,000

2011 : \$ 100,000

2012 : \$ 50,000

Primary RFCD 3102 BUILDING

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)

Brimbank City Council

Integrate Australia Pty Ltd.

Municipal Association of Victoria

Monash City Council

Glen Eira City Council

Mornington Peninsula Shire Council

City of Greater Dandenong

City of Kingston

Administering Organisation RMIT University

Project Summary

The proposed project will address a major issue of maintaining service delivery and managing risk of failure of infrastructure assets owned by local councils. A working business tool will be developed based on fundamental understanding of behaviour of building infrastructure over a long period of time which will enable 79 local councils in Victoria to optimise their maintenance and capital expenditure with a realistic understanding of the implications of investment. The national benefit will be a significant improvement of service delivery to community through better design and management of council assets and a significant saving of maintenance cost of councils.

LP0991260 Prof MB Steger; A/Prof JM Martin; Mr AR Murray

Approved Project Title **Closing the gap between the wellbeing of Indigenous and non-Indigenous youth: A comparative case study**

2009 : \$ 36,653

2010 : \$ 74,404

2011 : \$ 81,444

2012 : \$ 43,693

Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Unity Foundation

Administering Organisation RMIT University

Project Summary

Indigenous communities in Australia (and elsewhere) suffer from extreme disadvantage. Northern Australia and many other places face a demographic time bomb of alienated, self-destructive and culturally disoriented youth, with this manifested in violence and abuse. An evidence-based approach will build upon community strengths and knowledge moving beyond welfare or paternalistic approaches to improve the wellbeing of Indigenous young people. Ultimately the project aims to develop interventions for Indigenous youth that work towards closing the gap between the wellbeing of Indigenous and non-Indigenous youth.

Summary of Linkage Projects Proposals for Funding to Commence in 2009

LP0990511 Prof I Yarovsky; Dr DJ Henry; Dr EJ Evans

Approved Project Title **Environmentally responsive clean coatings**

2009 : \$ 49,000

2010 : \$ 98,000

2011 : \$ 98,000

2012 : \$ 49,000

Primary RFCD 2402 THEORETICAL AND CONDENSED MATTER PHYSICS

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

BlueScope Steel Pty Ltd

Administering Organisation RMIT University

Project Summary

Nature makes use of a range of fascinating surface properties, such as the leaves of the Lotus plant which stay clean even in dirty environments. In this project we will explore the molecular properties of novel polymer coated surfaces that-similar to some natural surfaces-can adapt to changing environmental stimuli and be resistant to contamination. Specifically, we aim to develop self-cleaning polymer coatings which can reversibly switch from wettable to non-wettable with changing temperature and humidity. These self-cleaning polymer surfaces with environmentally responsive properties will add value to pre-painted steel products and other coatings.