

Western Australia

Curtin University of Technology

LP0882227 Prof BJ Fraser; Dr JM Aldridge

Approved Project Title **Outcomes-focused Learning Environments, Affective Outcomes and Achievement Standards in Senior School Classes in Western Australia**

2008 : \$ 75,000

2009 : \$ 75,000

2010 : \$ 75,000

Primary RFCD 3301 EDUCATION STUDIES

Collaborating/Partner Organisation(s)

Curriculum Council of WA

Administering Organisation Curtin University of Technology

Project Summary

Given the controversy in the media about outcomes-focused education and the acute lack of research into its implementation and effectiveness, this research is timely and useful. It could have far-reaching implications for educational systems about how to effectively create outcomes-focused learning environments and whether educational standards are being maintained. It will provide information about how teachers can use action research, involving feedback from students, to guide the improvement of learning environments. Training opportunities will be provided for one Master's and two doctoral students.

LP0882550 A/Prof A Heitz; Prof RI Kagj; Dr CA Joll; Prof U von Gunten

Approved Project Title **Advanced water treatment technologies to minimize the formation of emerging disinfection by-products in potable and reuse water**

2008 : \$ 140,000

2009 : \$ 120,000

2010 : \$ 110,000

Primary RFCD 2504 ANALYTICAL CHEMISTRY

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Water Corporation

GHD

Administering Organisation Curtin University of Technology

Project Summary

Disinfectant management and disinfection by-products are of concern to water utilities, water treatment researchers and consumers worldwide. The project will make a world-class contribution to these issues, through use of state-of-the-art equipment and developed technologies. Sophisticated characterization of disinfection by-product precursors, especially poorly defined less volatile species, will provide insights into the relationship between their chemical structures and behaviour in treatment processes, benefiting all water utilities. The project will inform new drinking water guidelines and assist water utilities to balance the competing requirements of maintaining effective pathogen barriers versus disinfection by-product control.

Summary of Linkage Projects Proposals for Funding to Commence in 2008

LP0882680 Prof GI Metternicht; Dr IW Watson; Dr PE Novelly; Dr BE Norton; Mr TP Robinson; Mr G Beeston

Approved Project Title **PLAGA: Pastoral Lease Assessment using Geospatial Analysis**

2008 : \$ 158,000

2009 : \$ 121,500

2010 : \$ 153,500

2011 : \$ 95,000

Primary RFCD 3008 ENVIRONMENTAL SCIENCES

APA(I) Award(s): 1

APDI Mr TP Robinson

Collaborating/Partner Organisation(s)

Department of Agriculture and Food, Western Australia

SpecTerra Services Pty Ltd

Administering Organisation Curtin University of Technology

Project Summary

This project improves the capacity of Natural Resource Management (NRM) and land administration agencies to record, monitor and communicate changes in land condition across the large spatial scales characteristic of rangelands. Pastoralists also benefit through improved capacity to promote, defend, understand and if necessary change their management activities on the basis of scientific data. By further developing and operationalising this new approach to rangeland monitoring in a project integrating human extension expertise, specifically prepared monitoring products, and the associated software, the project will confirm the benefits that satellite technology can provide to land administrators and the grazing industry in monitoring and sustainably managing rangelands.

LP0882958 Dr VK Pareek; Prof GM Evans; Prof MO Tadé; Dr Q Li

Approved Project Title **Coarse-Grid Eulerian-Eulerian Multiphase Model for Fluid Catalytic Cracking Unit**

2008 : \$ 85,000

2009 : \$ 80,000

2010 : \$ 80,000

Primary RFCD 2906 CHEMICAL ENGINEERING

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

BP Refinery Pty Ltd

Administering Organisation Curtin University of Technology

Project Summary

A fluid catalytic cracking (FCC) unit is an important refinery unit operation responsible for about 45% of total petrol production. The aim of this study is to improve the petrol production efficiency of Australian refineries thus allowing our country not only to maintain its self-sufficiency but also to permit lucrative exports. This will be done by optimising the performance of the FCC unit through novel computational fluid dynamic simulations. The outcomes of this study will enable refiners to produce cleaner fuel (e.g., fuel with less sulphur) and decrease air pollution from the FCC unit (in the form of CO and particulates) thus helping Australia to preserve its diverse and relatively pollution-free environment.

Summary of Linkage Projects Proposals for Funding to Commence in 2008

LP0882806 Prof DA Stehlik; Prof LI Chenoweth; Dr D McAuliffe; Dr C Tilbury

Approved Project Title **Pathways to better practice: developing human resources in child protection services for Indigenous communities in Western Australia and Queensland.**

2008 : \$ 93,345
2009 : \$ 96,080
2010 : \$ 99,245

Primary RFCD 3702 SOCIAL WORK

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)
W.A. Department for Community Development
Qld. Department of Child Safety

Administering Organisation Curtin University of Technology

Project Summary

This study addresses the serious and escalating problem of providing child protection services to Indigenous children and their families in rural and remote areas. Service delivery to rural and remote environments in Australia is a high cost exercise and, to date, little research has been conducted to understanding the complex nature of professional (non-medical) interventions in communities with high proportions of Indigenous families and children. The study, conducted across two states, will contribute to national benefit in 3 key areas: the health and wellbeing of Indigenous children; skills shortage in rural areas and intergenerational change in professional disciplines.