

Summary of Linkage Infrastructure, Equipment and Facilities Proposals

Victoria

Deakin University

LE0882948 Dr MR Barnett; Prof PD Hodgson; Prof X Wang; A/Prof L Kong; A/Prof Q Guo; Dr T Lin; Dr C Wen; Dr N Stanford; Dr I Sabirov

Approved Project Title **Multidisciplinary 'Environmental' Field Emission Gun Scanning Electron Microscope**

2008 : \$ 440,000

Primary RFCD 2914 MATERIALS ENGINEERING

Partner Organisations & Collaborating Organisations

Deakin University

Administering Organisation Deakin University

Project Summary

The present proposal is for a high resolution electron microscope for use in the development of new materials for the automotive, textile and bio-medical sectors. The new generation of automotive materials will be lighter and more crash resistant. New textiles will be 'active' in providing warmth and cooling through their conducting properties. They will also provide enhanced dynamic protection against physical harm. The facility will support the development of new cellular scaffolds made from metals and polymers. These scaffolds will be used for tissue growth and engineering. The facility will also be used to support Deakin University's regional collaborators.

LE0883093 Prof S Nahavandi; A/Prof B Shirinzadeh; Dr HM Trinh; A/Prof Y Chen; Dr PN Pathirana; A/Prof AZ Kouzani; Dr Y Frayman; Dr Y Zhong; Dr D Creighton; Dr A Bhatti

Approved Project Title **A Haptically enabled Universal Motion Simulator Research Facility**

2008 : \$ 285,000

Primary RFCD 2903 MANUFACTURING ENGINEERING

Partner Organisations & Collaborating Organisations

Deakin University

Monash University

Administering Organisation Deakin University

Project Summary

The proposed universal motion simulator research facility will enable to develop a better understanding of issues involved in ergonomic and safe vehicle designs and provides opportunities to improve Australia's international competitiveness and economic sustainability through innovations in the manufacturing and transport sectors. This universal motion simulator will provide opportunity to extend our understanding of operator controlled devices, such as cars and mining machinery, and to develop effective strategies to reduce the risk of vehicle accidents.

LE0883017 Prof X Wang; A/Prof PJ Halley; Prof L Zhang; A/Prof Q Guo; A/Prof L Kong; A/Prof RW Truss; Dr PJ Torley; Prof L Ye; Prof Y Mai

Approved Project Title **Advanced processing and characterisation facility for functional polymers and polymer nanofibres**

2008 : \$ 300,000

Primary RFCD 2914 MATERIALS ENGINEERING

Partner Organisations & Collaborating Organisations

Deakin University

The University of Queensland

The University of Sydney

Administering Organisation Deakin University

Project Summary

The pilot-scale processing and advanced characterisation facility will significantly strengthen R&D capacity for innovative research and development of functional polymers and polymer nanofibres, hence adding value to the \$10-billion plus market for plastics, rubber and biopolymers manufactured and used in Australia. It will further strengthen Australia's position in polymer and nanofibre research and innovation.