Summary of Linkage Projects Applications for Funding to Commence in 2006

Victoria

Deakin University

LP0669808 Prof S Nahavandi; Dr HM Trinh

Approved Project Title **A hybrid multi-agent technique for shop floor control**

2006 :	$43,500
2007 :	$90,000
2008 :	$94,000
2009 :	$47,500
Primary RFCD	2903 MANUFACTURING ENGINEERING

APA(I) Award(s): 1

Partner Organisation(s)

Glenvern Technologies Pty Ltd

Administering Institution Deakin University

Project Summary

The new knowledge and techniques, as a result of this research project, will have direct relevance to many Australian industries. In particular, they provide opportunities to improve Australia's competitiveness through innovations for the manufacturing sector. The project will enable the development of the state-of-the-art simulation software readily accessible to a larger section of industry, including small to medium sized manufacturers. The use of meta-modelling will improve control of processes on the shop floor. Combining process meta-models with hybrid discrete event-based agent optimisation will result in increased shop floor efficiency, assisting Australian industry to be competitive in the world market.

LP0669591 Prof X Wang; Dr L Wang

Approved Project Title **Understanding the Drafting-against-Untwisting Process for Engineering Fine and Soft Yarns of Low Hairiness**

2006 :	$36,011
2007 :	$70,791
2008 :	$68,329
2009 :	$33,549
Primary RFCD	2903 MANUFACTURING ENGINEERING

Partner Organisation(s)

Merinomark P/L

Graham Walters & Associates P/L

Administering Institution Deakin University

Project Summary

This research will lead to much improved understanding of a very novel yarn engineering process to achieve fine, soft and low-hairiness yarns from natural fibres. It will demonstrate that Australia not only provides quality wool and cotton fibres, but also leads the world in innovative textile engineering technologies that can enhance the competitive positions of its natural fibres in the global fibre market. This research promotes value adding in Australian fibre products by developing advanced yarn engineering technology, which will be of significant national benefit to the multi-billion natural fibre industries in Australia.