

Summary of Discovery Projects Applications for Funding to Commence in 2006

Victoria

University of Ballarat

DP0666061 Dr A Bagirov

Approved Project Title **Derivative free algorithms for large scale nonsmooth and global optimization and their applications**

2006 : \$93,240

2007 : \$93,240

2008 : \$93,240

2009 : \$93,240

2010 : \$93,240

Primary RFCD 2301 MATHEMATICS

ARF Dr A Bagirov

Administering Institution University of Ballarat

Project Summary

The outcomes expected from this research fall broadly into two categories: 1) the development of a new class of effective readily implementable derivative free techniques for large scale non-smooth and global optimisation and 2) the development of new algorithms based on derivative free optimization techniques for solving data mining, resource allocation problems and some problems in bioinformatics. In particular, the application of these techniques to molecular biology and cluster analysis will be very important for the development of competitive technologies for Australia.

DP0665569 Prof J Smyth; Prof LB Angus

Approved Project Title **Individual, Institutional and Community 'Capacity Building' in a Cluster of Disadvantaged Schools and their Community**

2006 : \$65,000

2007 : \$65,000

2008 : \$70,000

Primary RFCD 3301 EDUCATION STUDIES

Administering Institution University of Ballarat

Project Summary

It is no longer ethically, socially or economically acceptable to have significant and growing proportions of the school population that are alienated, marginalised and excluded from a satisfying and rewarding educational experience. The national and community benefits for Australia expected from this research will be a better understanding of, and possibly alleviation of, the structural educational impediments that operate on disadvantaged individuals, institutions and communities. It is in the national interest to have a society in which all its members, not just the privileged, gain lifelong benefit from a rewarding schooling experience.