

Summary of Linkage Infrastructure Applications for Funding to Commence in 2006

New South Wales

University of Western Sydney

LE0668100 Dr GS Kannangara; Prof R Amal; Dr AS Milev; Prof PA Williams; Dr NH Tran; Dr K Chiang; Dr TR Ireland; Prof MA Wilson

Approved Project Title **High Resolution Simultaneous DSC/DTA-TGA-FTIR System**

2006 : \$200,000

Primary RFCD 2918 INTERDISCIPLINARY ENGINEERING

Partner Organisation(s)

University of Western Sydney
The University of New South Wales
The Australian National University

Administering Institution University of Western Sydney

Project Summary

National Research Priorities including 'New Materials' 'Frontier Technologies for Building and Transforming Australian Industries' and 'Developing Deep Earth Resources' will all be addressed and the benefits will include new materials such as carbon nanotubes and layered silicate composites. It will also contribute economically through technological development, supporting existing Australian companies in the development of more effective products and help keep pace with new and innovative advances in technology and to bring in vitality to strategic alliances with industry already launched by the University through a Sustainable Regions Program grant titled 'Building nanotechnology business potential in the Campbelltown-Camden region'.

LE0668448 A/Prof CJ Stevens; Dr E Schubert; Dr DA Cabrera; Prof JA Wolfe; Dr JR Smith; Dr D Sen; Prof RT Dean; Prof DK Burnham; Dr S Malloch; Dr GC Paine; Dr FA Bailes; Prof CT Best

Approved Project Title **See Hear! Multimodal Recording and Analysis Facility**

2006 : \$150,000

Primary RFCD 4101 PERFORMING ARTS

Partner Organisation(s)

University of Western Sydney
The University of New South Wales
The University of Sydney
University of Canberra
Australian Choreographic Centre

Administering Institution University of Western Sydney

Project Summary

High resolution recording and analysis will exploit the full potential of motion capture with progress towards automatic recognition of gesture and, eventually, real-time systems. Automatic tracking and recognition systems are in high demand and the interlacing of data from multiple modes is now computationally achievable. SeeHear! will be coded using techniques in multimodal fusion - tracking of bodies will be enhanced by locating and recognizing facial features, and a learning algorithm used to classify gesture from patterns of force and physiological response. In the future, full interactivity will be achieved by interconnecting visual and auditory data with a flow on to applications in the performing arts, rehabilitation and security.