



**Engineers Australia's College of Biomedical Engineers (SA Branch),  
The Society for Medical and Biological Engineering &  
The Australasian College of Physical Sciences and Engineers in Medicine**

Jointly present

## ***MUSCLE AND JOINT FUNCTION IN HUMAN LOCOMOTION***

Speaker: Marcus Pandy, Ph.D.  
Department of Mechanical Engineering, University of Melbourne

Gait analysis techniques have been used for more than a century to provide quantitative information on the kinematics and kinetics of human locomotion, yet only recently has a more complete understanding of muscle and joint function emerged. Rapid increases in computing power combined with recent advances in imaging and more efficient algorithms for modelling and simulation of movement have enabled more detailed analyses of muscle and joint function. This presentation will describe how gait analysis experiments and computational modelling may be combined to study muscle, ligament and joint function in vivo. Some recent results for walking and running will be presented.

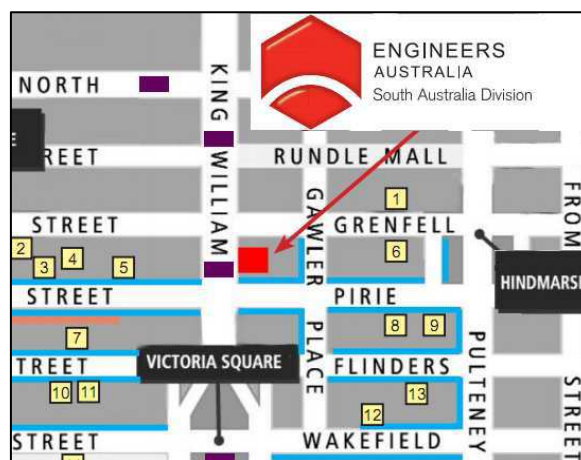
*Marcus Pandy is appointed as Chair of Mechanical and Biomedical Engineering at the University of Melbourne. Dr. Pandy received a Ph.D. in mechanical engineering from Ohio State University, Columbus. He then completed two years of post-doctoral work in mechanical engineering at Stanford University, California. Prior to his current position, he was appointed as the Joe J. King Professor of Engineering in the Department of Biomedical Engineering at the University of Texas in Austin. Dr. Pandy is a Fellow of the American Society of Mechanical Engineers and the American Institute of Medicine and Biology in Engineering.*

**Date:** Tuesday 3<sup>rd</sup> May 2011

**Venue:** Sir Robert Chapman Theatre  
Engineers Australia  
Level 11  
108 King William Street,  
Adelaide, SA, 5000

**Time:** 5:30pm refreshments  
6:00pm talk

**Cost:** FREE for members and guests



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