Session 2

RELIFING OUR BUILDINGS:-CREATING A SUSTAINABLE 21ST CENTURY ADVANCED MANUFACTURING FACILITY FOR RMIT FROM AN EXISTING BUILDING

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The University has embraced sustainable design for many of the new buildings currently being designed, with new buildings achieving 4, 5 and 6 Green star ratings.

Many existing University buildings do not perform well from both an environmental and work/teaching place perspective

The challenging for many Universities is what they can do to their existing buildings to greatly improve their environmental performance and to improve the working environment for Students and Staff and to sustainably refurbish existing building in a cost effective manner.

This paper seeks to show how smart integrated design can recognise and realise the intrinsic value of existing educational assets.

This presentation will tell the story of the sustainable redevelopment of RMIT's School of Foundry technology which was built in 1968 into a 21st century Advanced Manufacturing Facility. It will outline how the RMIT and their design team were able to recognise the intrinsic value of this asset and to refurbish it in a sustainable and cost effective manner to create a healthy and comfortable teaching environment which minimises energy and water usage and waste generated whilst creating a flexible and adaptable building to house the cutting edge manufacturing technology for the future. The paper will discuss the design process and give examples of where the design has gone beyond a "tick box" 5 Star Green Star rating, to incorporate design elements which add real value to the learning experience for Students and staff. The paper will describe how advanced computer modelling has been used to optimise the passive and active elements of the design to allow comfort conditions to be achieved without the use of air-conditioning. High levels of sustainability have been achieved within a comparatively modest budget. The lessons learnt from this building can be incorporate in the refurbishment of many existing university buildings.

Presenters Biography:

Jeff Robinson is Aurecons Principal Engineer and Sustainable Buildings Group Leader. Jeff has worked as a consulting engineer for over 23 years working in London, Ireland and for the last 12 years in Melbourne. He has been involved in the design of a wide variety of building types including offices, residential, industrial, academic and institutional buildings. Jeff is a passionate advocate for the design and renovation of Environmentally Sustainable Buildings and has been involved in many of the cutting edge ESD buildings in Melbourne and overseas. Jeff is a Green Star accredited professional, A Nabers assessor and a LEED Accredited Professional. Jeff has enjoyed being working on many projects which have realised the value of existing University buildings through their sustainable redevelopment.