



TECHNICAL UNIVERSITY OF CRETE (TUC)  
SCHOOL OF ENVIRONMENTAL ENGINEERING  
RENEWABLE AND SUSTAINABLE ENERGY  
SYSTEMS LABORATORY

## ΟΜΙΛΙΑ

# Near Zero Energy Housing

*Lighthouse examples in Australia - The Lochiel Park Green Village*

by Professor Wasim Saman

*Professor of Sustainable Energy Engineering*

*Barbara Hardy Institute/ University of South Australia*

**ΤΕΤΑΡΤΗ 2 ΙΟΥΛΙΟΥ 2014, ΩΡΑ: 18:00**

**ΠΟΛΥΤΕΧΝΕΙΟΥΠΟΛΗ, ΜΕΓΑΛΟ ΑΜΦΙΘΕΑΤΡΟ ΚΤΙΡΙΟΥ ΕΠΙΣΤΗΜΩΝ**

The speech introduces the research on Low Energy Buildings in Australia aiming to support the State Government's Strategic Plan in reducing its GHG emissions and preparing its economy and society for climate change and a carbon constrained world. A model green village showcasing leading edge energy efficient building design principles and best practice of sustainable technologies is presented. Lochiel Park serves as a model for other urban development and assists in educating the public and the property development industry about sustainable housing and land development.

### ***Short CV of the speaker***

The career of Professor Saman has focused on sustainable energy education and industry targeted research since the 1980s. Professor Saman leads an internationally recognised research group working in sustainable energy which comprises 28 staff and research students. In 1997 Professor Saman founded, and became Director of the Sustainable Energy Centre. He is the founding Director and currently Executive member of the Barbara Hardy Institute (formerly Institute for Sustainable Systems and Technologies).

He is currently leading projects focusing on solar thermal electricity generation and storage being carried out through the Australian Solar Thermal Research Initiative. He is also Research Leader in the CRC for Low Carbon Living focusing on integrated building systems with the aim of leading the transition to zero energy buildings. He is also leading a national project developing a framework for adapting Australian households to heat waves funded by the National Climate Change Adaptation Research Facility. He received the Pioneer Award from the World Renewable Energy Network in 2012. He is Past President of the South Australian branch of the Australian Solar Energy Society and Director of the Australian Carbon Biosequestration Initiative Ltd. He has acted as a consultant to many Government and industry bodies including current membership of the Technical Advisory Panel of the Office of Renewable Energy Regulator, Science Subgroup of the South Australian Clean Energy Council and the Nationwide House Energy Rating Scheme Technical Advisory Committee established by the Department of Climate Change and Energy Efficiency.

He also led the development and implementation of a methodology for evaluating and reducing energy use in new housing developments. He is currently involved in developing new energy rating tools for Australian housing. His current research includes developing an integrated solar system for the provision of hot water heating and cooling, developing better roofing systems, evaluation and monitoring of innovative low carbon, energy and water housing development at Lochiel Park and building solar thermal electricity, thermal storage and desalination systems. He has developed a number of test facilities to support research and development in the areas of air conditioning, solar hot water, thermal energy storage and thermal rating of building elements, operating as the Sustainable Energy Industry Support Centre, a national facility developed through funding from industry, the Australian Commonwealth Government and the South Australian Government.