

## Cooperative Research Centres

The ETC is proud to continue its involvement with three of Australia's outstanding research centres:

- **CRC Environmental Biotechnology**

Dr Jaya Nair has taken up a **post doctoral fellowship** and Otti Bajsa, Honours Graduate, will commence a PhD Scholarship in early 2005

- **CRC Desert Knowledge**

ETC Research Manager, Dr Martin Anda, has managed a team of researchers studying the provision of basic services to desert communities. Two field trips to the central desert area have been completed along with a workshop in **Alice Springs** for key stakeholders. Work with the Desert Knowledge CRC will continue throughout 2005 and beyond. The research team is pictured below in a desert community.

- **CRC Sustainable Tourism**

Led by Dr Anda a small team of researchers has continued to work on projects related to sustainable technologies for remote area tourism.

*For more info about the ETC & CRCs visit the website:*

[www.etc.murdoch.edu.au](http://www.etc.murdoch.edu.au)



### *... environmental technology for sustainable development*

*Comprising a world class research centre, permaculture garden, sustainable technologies demonstration centre and exhibition buildings, the ETC was founded in 1992 by the Remote Area Developments Group. The ETC is supported by the United Nations Environment Programme (UNEP), the Government of Western Australia, Murdoch University, and Industry Partners.*

*The ETC would like to extend Season Greetings to all our associates, supporters, partners, and our many visitors and volunteers.*

*We wish you all a prosperous, productive and sustainable 2005.*



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UNEP-IETC  
**Environmental  
Technology  
Centre**  
Murdoch University

**Highlights and  
Season Greetings  
2004**



## New Standard in Water Auditing

**Dr Jeff Sturman**, Research Fellow with the ETC (pictured above with Professor Goen Ho), has authored a new book, with **Goen Ho** and **Kuruvilla Mathew**, which brings together contemporary approaches to **water auditing and conservation**. With Perth entering yet another summer of water restrictions and Australia as a whole now recognising that we face a major water crisis Jeff's book is published at a time when water issues are taking centre stage. Research Manager at the ETC, Dr Martin Anda said the "...book will set a new standard in water auditing and couldn't come at a better time. Water issues are one of the **biggest environmental issues** we face, not just in Australia but internationally." The book is available from IWA, see the ETC website for more details.



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PERTH, WESTERN AUSTRALIA

## Successful Conferences 2004

The ETC organised two very successful conferences held in the Port City of Fremantle in early 2004. Over 230 delegates attended the **6<sup>th</sup> Specialist Conference on Small Water & Wastewater Systems** and the **1<sup>st</sup> International Conference on Onsite Wastewater Treatment & Recycling**, held at the Esplanade Hotel, 11<sup>th</sup> – 13<sup>th</sup> February. Selected papers will be published in a Special Edition of the IWA Water and Environment Management Series. IWA in conjunction with ETC have also published selected papers from the **Sustainability of Water Resources Conference** held at Murdoch University in February 2002.

## Outstanding Students Win Awards

At the Division of Science & Engineering Prize Night 2004 three ETC associates won major prizes. Our congratulations to:

**Ertan Barkman**, Environmental Solutions International Prize in Environmental Science for the best student project in the fourth year of Environmental Science in the area of waste management.

**Wendy Green**, Physics Prize for the best academic performance by a student graduating from the physics programme.

**Ria Kristiana**, School of Environmental Science Occasional Prize for outstanding achievement in the Bachelor of Environmental Science degree.

Wendy Green also obtained a **first class honours** degree while Emma Yuen, Stewart Dallas and Andrea Jardine Orr will shortly submit their PhD Theses.

## Digital Delivery for Developing World

Building on work undertaken for the UNEP-IETC on the **ESTIS online information server** staff at the ETC have been working on five **e-learning packages** for use in developing countries. The innovative electronic learning tools will soon be available via the UNEP-IETC website. The packages are Rainwater Harvesting; Wastewater Reuse; Water Demand Management; Energy Savings in Cities and; Sustainable Sanitation for UNEP-IETC Japan.



## Unique Partnership in North West WA

Over the past twelve months, Environmental Technology Centre (ETC) project officer Josh Byrne has been assisting community members from **Glenn Hill Station** at Mandangala Community in the **East Kimberley** to set up a nursery facility to raise seedlings for community landscaping projects and for rehabilitation research work at **Argyle Diamond Mine** (ADM).

A group from the community visited the ETC on a series of training program during 2003 thanks to the support of ADM. The group were so inspired with what they learnt that they decided to build their own nursery, as well set up a worm farm to process food waste from the mine site into valuable fertiliser. A number of other projects such as a **community orchard** and **poultry system**, a shared outdoor cooking facility and various community landscaping projects are also on the drawing board.

## Student Volunteers Help Maintain Site

A group of dedicated students have helped further develop the permaculture garden at the ETC by hosting special volunteer training sessions on Monday afternoons.



Throughout 2004 the team have built on the work of Site Managers Karen McKenzie, Otti Bajsa and Mick Sherriff by growing organic vegies in purpose built garden beds. The programme will continue in 2005.

## Eco-Lodge to feature at ETC

Dr Martin Anda announced in August a major new partnership between the Murdoch University Environmental Technology Centre and **Australian Outback Lodges**, a Queensland based company who design and construct environmentally sensitive accommodation options for tourism operators.

The ETC will be home to a display version of the Eco Lodge. The Eco Lodge will feature a solar array and wind turbine supplied by **Birkenhead Batteries and Solar Power**. Local landscape architect Kevin Moran is lending his skills to the project by designing an eco-friendly garden to blend the lodge into the existing permaculture garden. Construction work is expected to be complete in early 2005 with a launch on March 3.



## Collocation for a Sustainable Future

**Green Skills** is now on the ETC site having moved into the Wardung building at the end of July. It is an exciting new opportunity for Green Skills and the ETC to undertake joint projects promoting sustainability with. Staff and students at the ETC are already actively working with Green Skills staff on the south coast on waste management systems for the **Denmark Centre for Sustainable Living**. Green Skills was established in 1989 and has offices in Perth, Mundijong, Denmark and Albany. Green Skills is committed to the promotion and demonstration of sustainability by supporting the creation of sustainable employment opportunities. This is achieved by providing quality training and employment services and through the management of a range of projects.