

AIE National Postgraduate Student Energy Awards - Results

University of Melbourne, 27-29 November 2006

The National Postgraduate Student Energy Awards were held conjunction with the AIE National Conference. This was the first time that the awards were held on a national basis, although several AIE branches have previously conducted regional awards. The format dates back to the origins of the Institute with the first reported awards in Melbourne in 1983.

The awards aim to provide students with the opportunity to present their postgraduate energy research to a public comprised of energy professionals and other interested persons. The students are required to communicate the key elements of their particular project through a poster, a printed summary and personal discussions with delegates. The awards provide valuable experience for students, and are a recruiting ground for energy organisations. They help retain students and their expertise in the energy industry. Many former award winners have progressed to senior positions in industry, some of whom were present at the conference.

There were 26 entrants from five states: Queensland, New South Wales, South Australia, Victoria and Western Australia. In some cases the students were selected to participate on the basis of their performance in regional awards, while others responded to the conference *Call for Papers*. All entrants received free conference registration, thanks to the generosity of conference sponsors: Shell Australia, EPA Victoria, ExxonMobil, the Victorian Government (Department of Infrastructure and Department of Sustainability and Environment), CSIRO (Energy Technology and Energy Transformed Flagship Program), Hydro Tasmania, Monash Energy and the Australian Greenhouse Office (Department of Environment and Heritage). Their support allowed students to participate in the full conference experience and provided the prizes for which the students were competing.

AIE branches provided financial assistance for travel and accommodation for some interstate participants, and Australian Coal Association Research Program (ACARP) generously supported the participation of five of the entrants.

A panel of four judges assessed the students and their projects: Tony Forster (AIE President), Tony Vassallo (AIE Director and Sydney Branch Chair), Peter Drohan (Shell Australia) and Peter Jackson (CSIRO). The judging process was quite intensive and the AIE appreciates the efforts of the four judges. They had to assess the printed project summaries in advance of the conference then give up most of their lunch and tea breaks to assess the posters and students' explanations of their project. The high standard of the entries particularly impressed the judges and delegates with experience of regional awards.

To give students an equitable chance to win awards, the 26 projects were divided into three categories — Alternative Energy Pathways; Oil, Gas & Carbon Capture; Coal & Combustion — with eight or nine projects in each group. The eight awards — the best project overall, the encouragement award, and the best and runner-up projects in each category — are listed in the table below. The awards went to students from all of the participating states and from a wide cross-section of energy fields. The full list of projects is available on the conference web site, www.aie.org.au/conference, under 'Student Awards'.

The AIE wishes to say a special thank you to Dr Sandra Kentish of the University of Melbourne, who was the Awards Coordinator. Her expertise and hard work were major factors in the success of the event.

Award	Sponsor	Amount	Student	Project
Best Overall Project	Shell Australia	\$2,000	Susie Wood University of Sydney	Oxidation of Methane in Mine Ventilation Air Using Porous Burners
Encouragement Award	Exxon Mobil	\$1,200	Yuchun Zhao RMIT	Combined Desalination and Power Generation Using Solar Energy
Best - Alternative Energy Pathways Project	EPA Victoria	\$1,200	Maria Kordjamshidi University of New South Wales	Development of a New Framework for House Rating Scheme (HRS)
Runner Up - Alternative Energy Pathways	Hydro Tasmania	\$800	Akshat Tanksale University of Queensland	Nanostructured Catalyst For H ₂ Production From Sugars
Best - Oil, Gas and Carbon Capture Project	Victorian Government	\$1,200	Mohammad Haghighi Paripari Curtin University of Technology	Direct methane to methanol as a key solution in GTL technology
Runner Up - Oil, Gas and Carbon Capture	Australian Greenhouse Office	\$800	Seamus Delaney Monash University	Electrically Regenerable Mesoporous Carbons for CO ₂ Capture
Best - Coal and Combustion Project	CSIRO	\$1,200	George Szego University of Adelaide	MILD Combustion Technology: Integrating Energy Efficiency and Low Emissions
Runner Up - Coal and Combustion	Monash Energy	\$800	Elizabeth Hodge University of New South Wales (research work in CSIRO, Qld)	The Char-CO ₂ Reaction at High Temperature and Pressure