



Engineering, Computing and Mathematics

## Lunchtime seminar: Engineering learning

Faculty Academy for the Scholarship of Education (FASE)

The Faculty Academy for the Scholarship of Education (FASE) is delighted to present a series of lunchtime seminars with the aim of disseminating good practice in education across the Faculty.



Tuesday 27 March 2012

1:00pm – 2:30pm

Oceans Institute Seminar Room G.05

### Have we forgotten why and how we do engineering?

In the last half-century, engineering education has been predominantly focused on engineering science. In this talk Winthrop Professor James Trevelyan shall discuss important dimensions of engineering practice that seem to have been forgotten, not only within education but also within the profession. The most important is the *raison d'être* for engineering itself. W/Prof Trevelyan shall present evidence that leads one to the conclusion that engineering is a profession that has lost both its purpose and much of its working knowledge. This is sufficient to explain why engineers feel they are widely unrecognised, unrewarded, underpaid and often find themselves sidelined, working for generalist project managers with limited if any understanding of technical issues.

W/Prof Trevelyan will also present evidence suggesting that the cost of this oversight, just in Australia, could be many billions of dollars a year. In low income countries, the consequences of this oversight could be one of the principal barriers for overcoming persistent poverty.

For pre-reading, refer to W/Prof Trevelyan's submission to the Senate Enquiry on Engineering and Related Skill Shortages at:

[http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate\\_Committees?url=eet\\_ctte/engineering/submissions.htm](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=eet_ctte/engineering/submissions.htm)

### About the speaker



**W/Prof James Trevelyan** - James Trevelyan, with a team of research students and colleagues, has researched engineering practice since 2001 in response to questions that arose from his experiences employing engineers in Pakistan. The question "What do engineers do?" seems obvious yet there is a remarkable lack of research. James's group has contributed around half of all the publications that have appeared on engineering

practice over the last decade. Early research results from the group are now beginning to be confirmed by a handful of other researchers working in different parts of the world.

James's career spans nearly 4 decades, the first two of which were devoted to engineering practice in aerospace and subsequently robotics and automation for the Australian wool industry. He and his research students developed technology for remote internet control for robots and also for providing remote access to laboratory equipment, technology that has now been widely adopted worldwide.

### Notes for participants

Numbers are limited, so please register your attendance to Erin Rummer (Email: [erin.rummer@uwa.edu.au](mailto:erin.rummer@uwa.edu.au)) by **20 March 2012**. Light lunch and refreshments will be provided. Registration confirms your attendance at the seminars. Please provide a minimum of two days notice for cancellation.