



This Department is committed to continuous improvement in Academic Engineering Education, Initial and Continued Professional Development of its Staff, Students and Alumni.

HEADLINES

World Bank statistic

Manufacturing in Thailand is losing 15% of its sales due to not enough high quality engineering human resource.

ASEAN movements

Is ASEAN getting its act together, and what is on the horizon for the engineering and education community?

Prior to the ASEAN Summit, the 2006 International Energy Conference for Sustainable Asia and the 24th Conference of Asean Federation of Engineering Organisations were held in Malaysia, from 26th November to 2nd December 2006. Each conference had over 600 delegates, including the Deputy Prime Minister, the ASEAN Secretary General, Presidents of various federations, institutions and other professional bodies, as well as industrial and academic professional engineers.

The PE community in the ASEAN region has a crucial role to play in its development, from education to professional accreditation and delivering the final product. There must be a balance of issues covering social, cultural, economic and political as well as the core engineering activities. The Malaysian Government as well as the ASEAN level political representation recognised the important role that the PE community has to play. The full report is in the University Library.

Example student project this semester

The 2nd year course, Engineering Research Methods, includes a project that will investigate the relevant issues relating to stoves used for traditional cooking.

Can the design be changed to minimise pollution, waste and cost? If so, will anyone want to use it – are there other human issues that need to be factored in?



Engineering Human Resource & Entropy

This department is working to alleviate the problem identified by the World Bank, aiming to provide a steady stream of high quality engineering HR for industry.

One of the complaints from industry is that graduates cannot make decisions or take action. It is essential that students can think freely, and select an appropriate hierarchy of priorities, and hence be able to make decisions on difficult issues.

When discussing this with the students, an example of a hierarchy is seen by analogy to the quality of energy, as taught in their Thermodynamics class. "Work" is viewed as being a higher quality (or more useful) form of energy than "heat", for the same amount of energy as measured in Joules. You can convert 100% work to heat, but not 100% heat to work. This is linked to the 2nd law of Thermodynamics, and that is where entropy comes in.

This concept of quality can be applied to setting targets whilst studying a degree in engineering. For their studies, the students should do what is necessary to develop into the best professional engineers they can. This will then automatically lead to high marks and a high GPA. If students focus on trying to get high marks, this may not lead to them becoming a good professional engineer. The target of becoming a good professional engineer is of a higher "quality" than simply aiming to get good marks. It gives a framework for decision making relating to what and how they study.

It is integral to this Department's philosophy of engineering education, that students understand this concept, and apply it. They are also encouraged to apply the same thinking to their decisions relating to ethics and their development towards becoming professional engineers.

Message from the HOD

Just enough space to wish everyone a productive and happy new year ! *Paul*

Admissions

Join us, and be part of a fast moving and rewarding environment, whilst studying for a Degree that is valued by industry. MED graduates will be equipped with the skills, knowledge, analytical ability and sense of professionalism that can support them for their life-long education, training and career progression.

For further Department information, visit <http://www.edu.asianust.ac.th/~me/>
Or contact med@asianust.ac.th

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Contributions for the next edition are welcome at any time from staff, students or alumni, and should be emailed to med@asianust.ac.th

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