What our students do

The ethos of the energy theme is to expose students to real-world energy engineering as often as possible.

In the first year module Introduction to Energy Engineering students complete a team-based project linked to an external client. As part of a memorandum of understanding with Lichfield District Council students have explored the possibilities for district heating using waste heat from Rugeley coal-fired power station, sustainable energy provision for a new housing development, and an energy demonstrator adjacent to Chasewater Lake.

In third year students are encouraged to enter the nPower Energy Challenge as part of the module Advanced Conventional Energy. Birmingham has competed in all 5 finals so far and won it with an outstanding performance in 2010. This competition is an excellent example of enquiry-based learning in action. Teams are given little more than a one-line question and spend two months researching everything about the energy engineering industry.

In fourth year, at masters level, teaching is in one-week intensive blocks and this allows for a complete day-long site visit. Westmill Wind Farm is the nearest onshore windfarm to London run by a co-operative. Our students are treated to a focused tour of the facilities by informed members of the local community :

> 'It was a pleasure to show, what I think was the best group of students I have seen for a long time, round our wind farm and I congratulate you on them. They were interested, bright and intelligent and were very prepared to express sensible opinions during the general discussion we had towards the end of the visit. They have helped to restore my faith in the British education system and suggest that there is a future here for engineering. I hope there will be many more like them.'

- Westmill Wind Farm Guide and Electrical Engineer

Fourth year students have at least one all-day visit to energy facilities. Here they are learning about how co-operatives can unlock sufficient funds, coupled with feed-in tariffs, to compete with the big energy companies.

The npower Energy Challenge 2011 winners Robin Abrams, Lincoln Smith, Jenny Lackin and team captain Andrew Baines (Image used courtesy of RWE npower plc). The team of undergraduates from the University of Birmingham won the national competition for their proposal to deliver a sustainable, secure and affordable energy supply for the future. View the news item **Engineering students keep up the npower challenge** for further information.

Team IEDT joint winners of the nPower Challenge 2010 clutching their £1250 cheques and the £5000 cheque that the University has used to endow two prizes for energy engineering students.

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