

RAEng Visiting Professors (VPs)



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RAEng strategic challenges

1. Make the UK the leading nation for engineering innovation and business
2. Address the engineering skills crisis
3. Position engineering at the heart of society

Principal Activities

Changing perceptions: Eng. Project (ETP)

Visiting Professors

Education programmes: In schools, FE and HE

Education policy and research

Diversity and Inclusion

VPs: Some facts

- Purpose is to support teaching
 - 250+ VPs during last 20 years
 - 50+ at any one time
 - 20+ new appointments each year
 - Usually 3-year term
 - Principal funding from BIS
 - Honorarium negotiable
-
- “Professor” title is in gift of host university
 - Often from industry, but can be retired
 - RAEng VP title ends at end of award

Visiting Professor (RAEng) 2017 Conference



[Read more here](#) ➞



The Academy is
committed to engaging
higher education (HE)
and supporting
engineering work in
academia.



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Stay at the forefront of innovation
and get access to all the latest
educational support and advice.



➔ You are here [Home](#) > [Industry](#)

Industry

The following are Academy schemes to facilitate closer contact between the academic and industrial worlds.

As the site grows we encourage others to have their industrial schemes on this site. If you know of any other suitable schemes then email [Higher Education](#).

Visiting Professors



This industry-into-academia initiative aims to the experience of the Visiting Professors from industry to enhance student learning as well as the employability and skills of UK engineering graduates.

Sainsbury Management Fellowships



The Sainsbury Management Fellowship scheme, funded by the [Gatsby Charitable Foundation](#), enables engineers of high career potential to undertake full time MBA courses at major international business schools. Since 1987, the scheme has supported more than 300 engineers.



Exchanges between industry and academia

Grants and prizes >

[Royal Academy of Engineering Award Winners 2016](#)[Schemes for students](#)[Exchanges between industry and academia](#)[Support for research](#)[International research and collaborations](#)[Prizes and medals](#)[Ingenious: public engagement awards](#)[Support for entrepreneurs](#)[Online grants management system \(GMS\)](#)

The Academy runs a series of schemes to encourage engineering research and facilitate closer contacts between the industrial and academic worlds.

For Research Chairs and funding to support academic research, visit:

[Support for research](#)

Industrial Secondment scheme

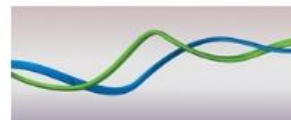
Supports early to mid-career academics to spend 6-12 months in industry



Visiting Professors



Chainsbury Management Fellowships



Visiting Teaching Engineers



**MOTOROLA SOLUTIONS
FOUNDATION**

Visiting Teaching Engineer - Motorola Solutions Foundation

Visiting Professors

Exchanges between industry and academia



Industrial Secondment scheme

Visiting Professors

[How to apply](#)[Current VP Awardees](#)[Guidelines for Current Awardees](#)[Centres of Excellence in Sustainable Building Design](#)

Sainsbury Management Fellowships

Visiting Teaching Engineers

Visiting Teaching Engineer - Motorola Solutions Foundation

Applications for the 2016 cohort are now closed. The next round for new applications will be in early 2017.

This industry-into-academia initiative aims to utilise the experience of the Visiting Professors to enhance student learning as well as the employability and skills of UK engineering graduates.

Under the scheme, senior industry practitioners deliver face to face teaching and mentoring at the host university. They may also contribute to postgraduate teaching, curriculum development (such as the development of new modules/programmes) and strategy development. This award provides up to £10,000 per year over three years for a Visiting Professor to support the university with these activities.

Scheme events

The Academy organises an annual Visiting Professors Conference for our cohort of Visiting Professors and their academic partners. The purpose of this event is to develop a community of practitioners and share best practice in industry-inspired teaching and its impact upon student learning.

In 2015, the Visiting Professors/Visiting Teaching Fellows Annual Conference was held at Aston Business School on 19-20 November. Attendance at this conference is by invitation only.

Publications

The Academy has published six reports to date to support these schemes, the most recent, *Educating engineers to drive the innovation economy*, was published in April 2012.

 [Educating engineers to drive the innovation economy \(1,018.68 KB\)](#)

 [Rough Guide to being a RAEng Visiting Professor \(459.24 KB\)](#)

Current Visiting Professor Awardees

Exchanges between industry and academia >

Visiting Professors

[How to apply](#)

[Current VP Awardees](#)

[Guidelines for Current
Awardees](#)

[Conferences](#)

[Sainsbury Management
Fellowships](#)

[Visiting Teaching Engineers](#)

[Visiting Teaching Engineer -
Motorola Solutions Foundation](#)

2017/18 Awardees

The following people have been named as Visiting Professors in the 2017/18 funding round:

- **Dawn Bonfield MBE** (Towards Vision) at Aston University
Visiting Professor in Inclusive Engineering: Embedding Diversity and Inclusivity in Engineering Education

Dawn Bonfield is working with Aston University to embed the principles of inclusion into engineering through a combination of individual behavioural change, structural alignment, and the teaching of the principles of inclusive engineering. The aim of this work is to simultaneously ensure that the engineering sector works towards a culture of inclusion, as well as ensuring that our future engineering products and services are free from bias and discrimination.
- **Dr Tim Fox** (Independent Energy Consultant) at University of Exeter
Visiting Professor in Clean Energy and Public Engagement

Dr Tim Fox is focussed on sharing industrial experience in energy storage technologies and low carbon cooling through undergraduate curriculum development and teaching. He is also creating new learning resources to develop staff and student skills in public engagement and policy advocacy, as well as helping disseminate student project work to industry.
- **Malcolm Lees** (Independent IT Consultant) at King's College London
Visiting Professor in Software Performance Engineering

Malcolm Lees is working with KCL to develop and trial a new Software Performance Engineering module for inclusion in the Department of Informatics degree curriculum. Using his 40+ years IT experience, the module will enable students to understand and execute performance engineering disciplines to deliver performant and scalable applications by early mitigation of performance risk that results in a lower total cost of ownership through cost avoidance, both directly & indirectly.
- **Dr Nicholas John Hazel** (Retired / Independent Industry Consultant) at University College London
Visiting Professor in Out-Of-The-Box Solutions for Engineering Problems
- **Atul Roy** (British Telecom) at University of Kent
Visiting Professor in Communication Networks

Atul Roy is a strong believer of lifelong learning and development through a combination of theoretical and real-world exposure. His lectures on Digital Communication includes examples from industry on its implementation, technical and business challenges as well as how students could excel in different types of roles using learnings from this module. Atul is a supervisor of multiple engineering projects where he brings both knowledge as well as resources from BT to support project activities. Atul also gives talks to students on career and personal development.

VPs: Some examples of activity

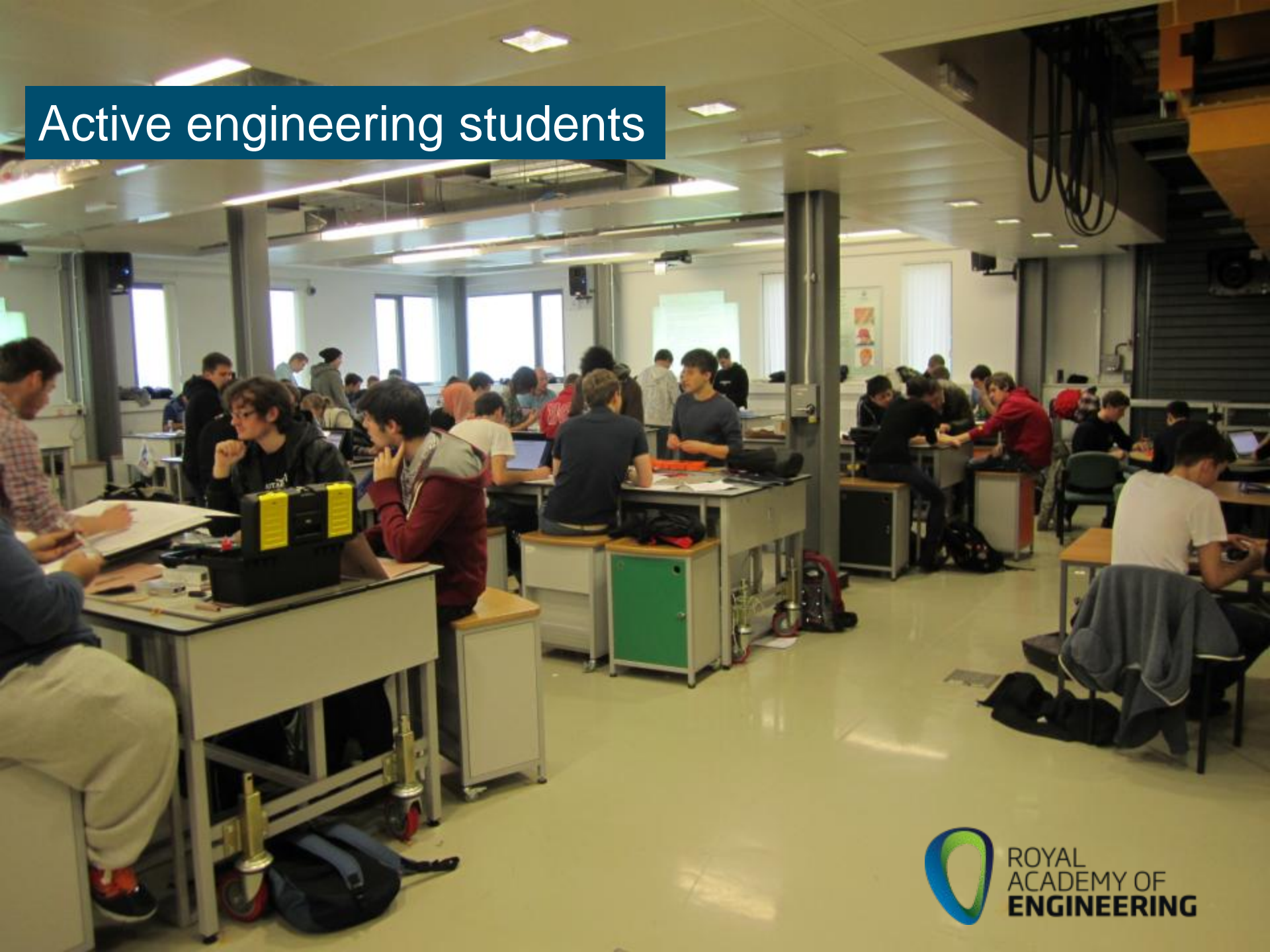
- Write new modules or lectures
 - Deliver new modules or part-modules
 - Suggest, supervise, moderate, judge, assess project work
 - Lead industry liaison
 - Mentor staff or students
 - Stimulate competition entries
 - Advise on and critique programmes, curricula and syllabi
 - (Advise and collaborate in research bids and projects)
 - Anything your host would find helpful
-
- But they should leave a permanent mark, not just be a short-term stopgap.
 - and make them feel a part of your Department/School/Faculty

Engineering students

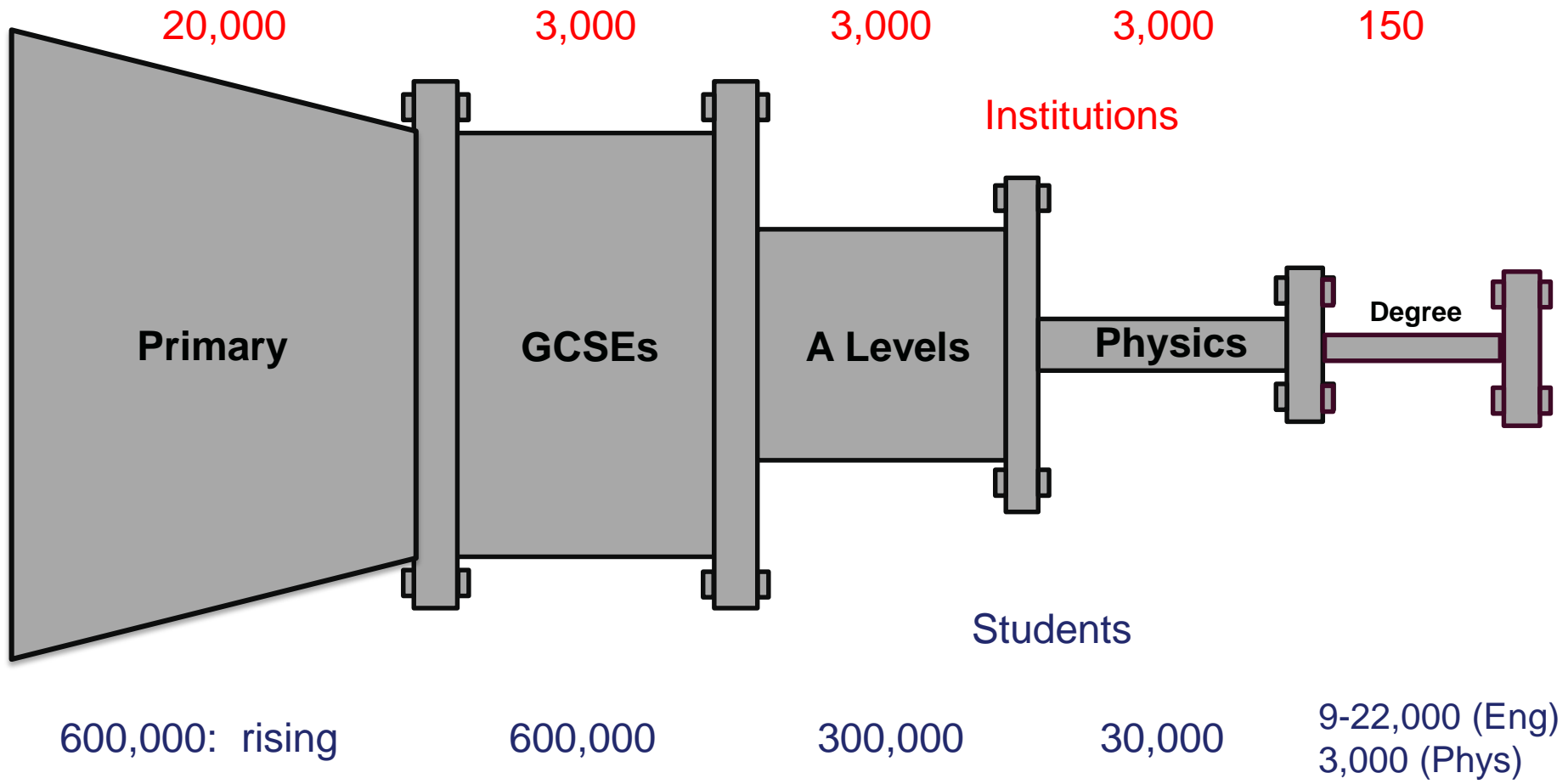


... and where they come from

Active engineering students



The UK pipeline

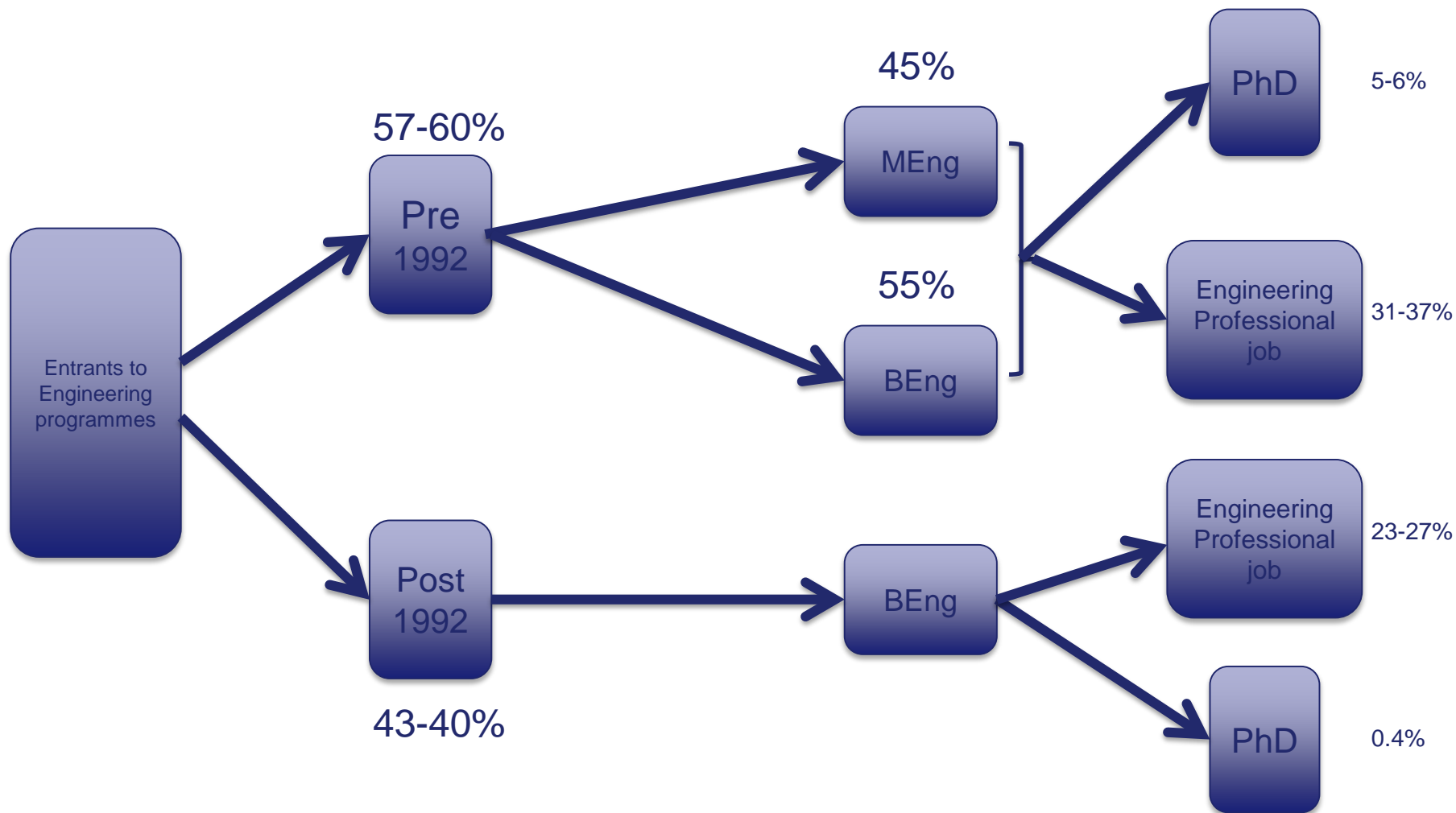


Degree programmes chosen by those with A level Physics in 2011

Engineering	10,000+
Physics	3,000
Mathematics	3,000
Computer Science	1,200
Chemistry	1,200

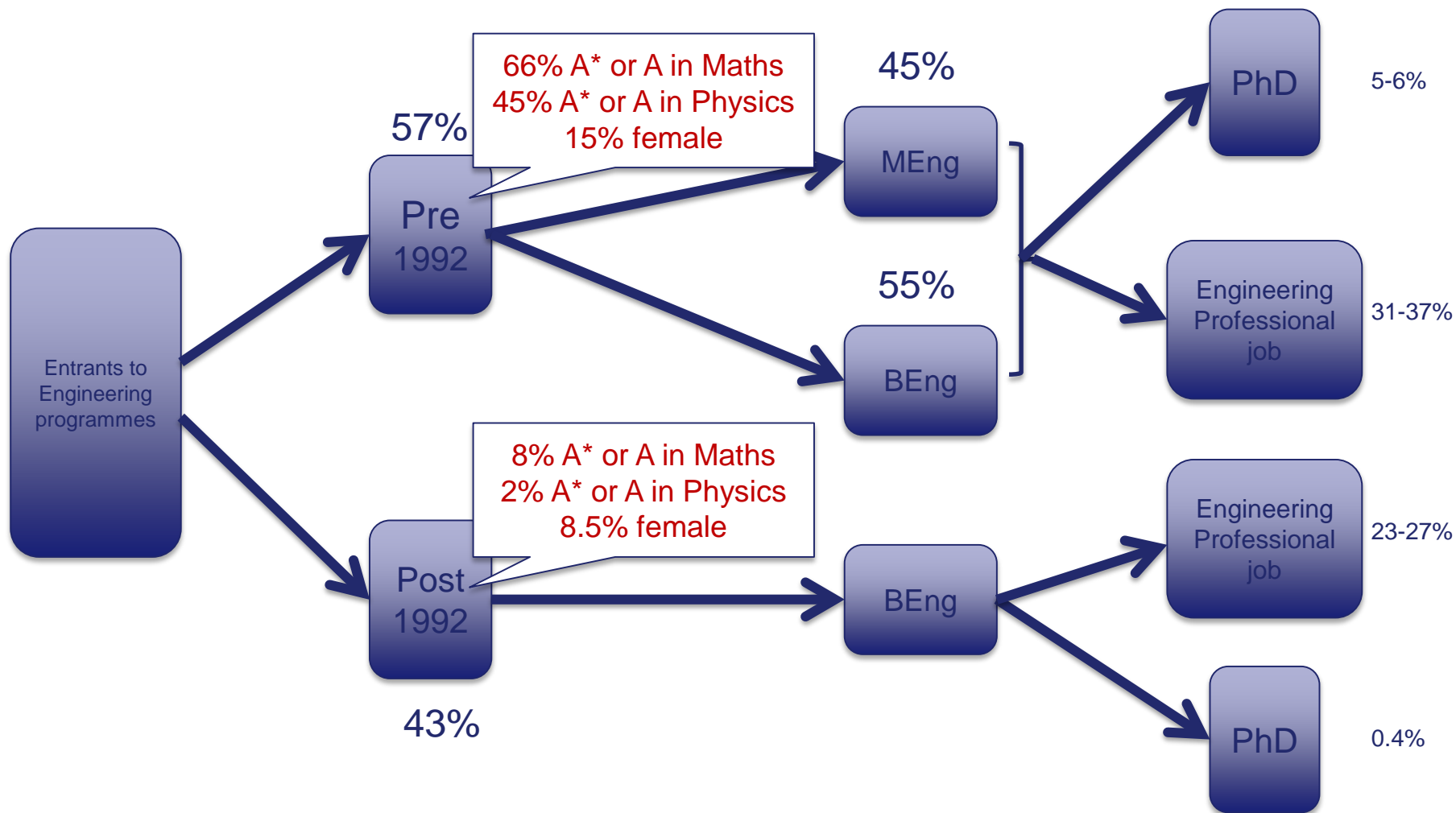
Medicine	1,000
Economics	850
Architecture	650

When they undertake an engineering degree



[2010 data from UCAS, HESA, NSS]

When they undertake an engineering degree



[2010 data from UCAS, HESA, NSS]

A concept question

You are sitting in a boat in a small pond. You have a six-pack of beer. You throw it into the water and it sinks to the bottom.



Does the level of the water in the pond:

1. Rise?
2. Fall?
3. Stay the same?

Some questions you might like to ask

What are the Department's strategic objectives?

What are LOs for the programme(s) on which I will be teaching?

Is the teaching “research led”? If so, how does this impact the undergraduate curriculum?

What pedagogic techniques are in use? [lectures; PBL; PjBL; flipped classes; ug research;]

How much maths is taught? By whom? Why?

What is the procedure for changing things? [content; LOs; teaching methodology; assessment methods]

Some more questions

Do you have guidelines for deadlines?

How do you assess individual contributions to team work?

Do the students have access to specific software for PRS;
or a twitter account for complaints, or other social media,
or a VLE?

(of your AC) Which of us should write the first draft of our
report?

How do I find out what the students have been taught in
other modules?

Some really important questions

Where do staff have coffee?

Where do I park? How much?

How do I get an ID card with as many rights as possible?

Why don't the students laugh at my jokes?

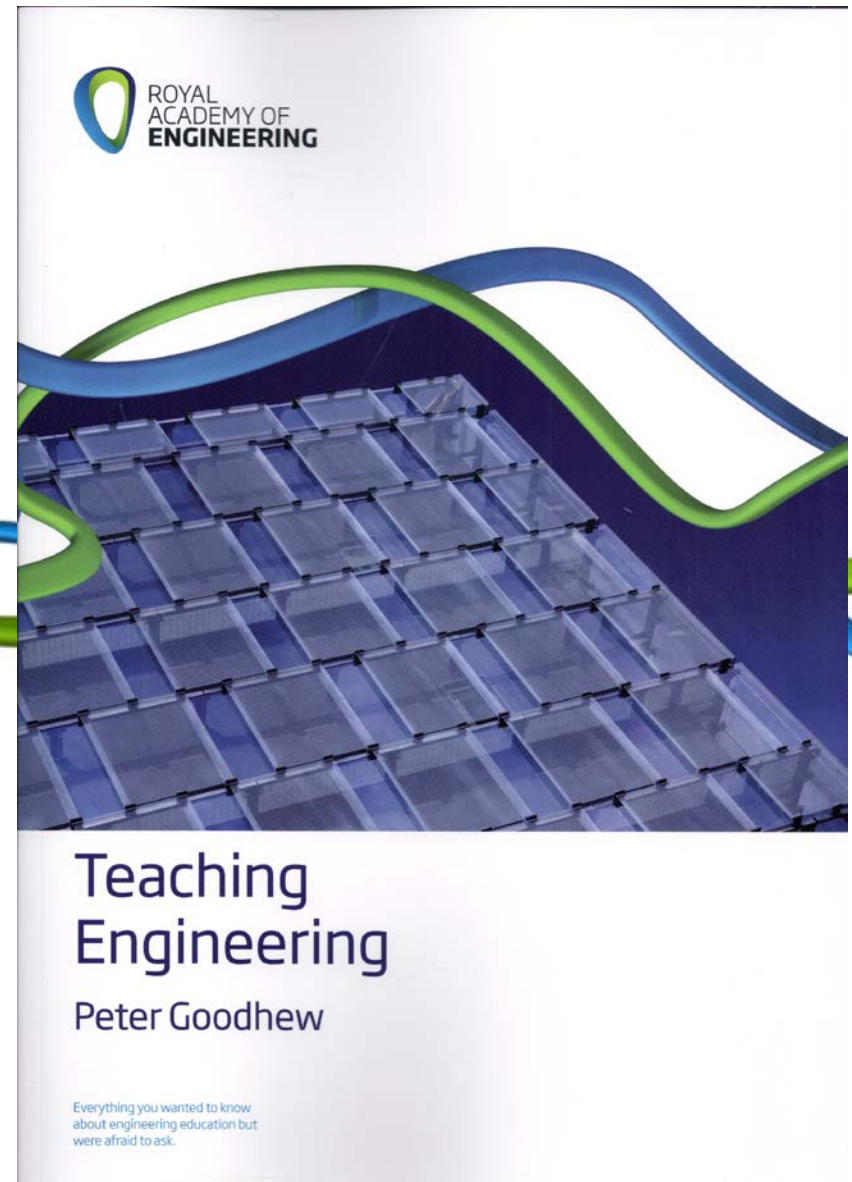
How should I handle students who: don't attend; talk incessantly; are constantly on facebook or snapchat; don't hand in any work?

How do I get out of this?

A blatant advert

“Teaching Engineering” book:

Comment and print at
teachingengineering.liv.ac.uk



2012

Educating engineers to drive the
innovation economy

2010

Engineering graduates for industry

February 2010



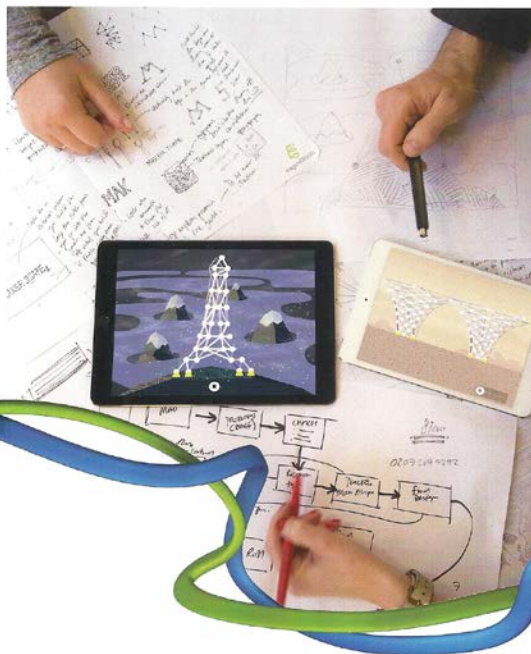
2007

Educating Engineers for the 21st Century

June 2007

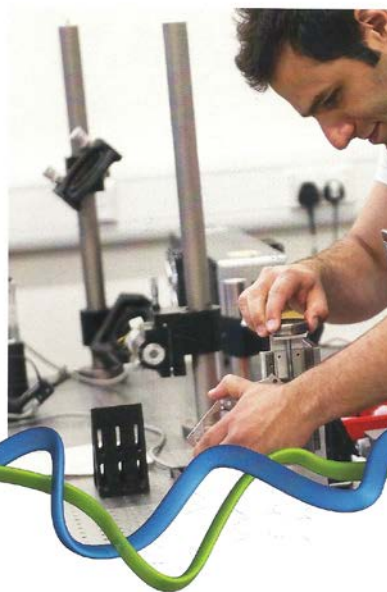


“Engineering graduates should be able to do something”



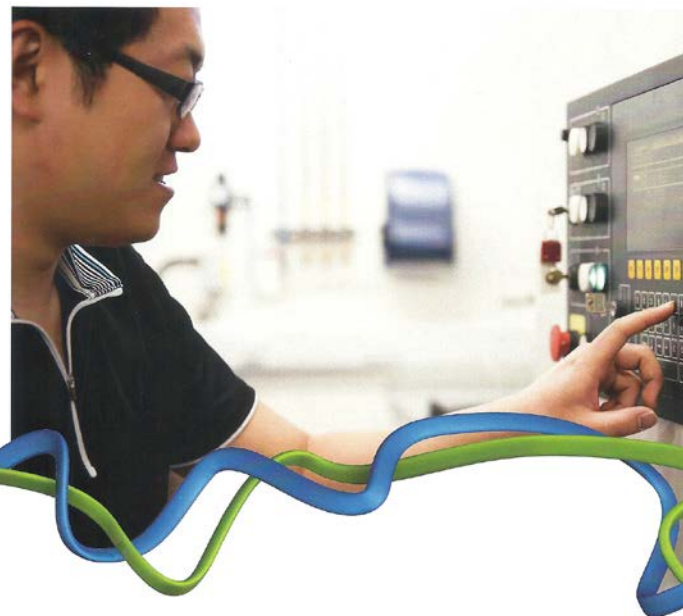
Development of e-learning resources

– A good practice guide



Experience-led learning for engineers

– A good practice guide



Effective industrial engagement in engineering education

– A good practice guide

Employment outcomes of engineering graduates: key factors and diversity characteristics



Please feel free to ask me for advice
before (or after!) bidding for a VP
(goodhew@liv.ac.uk)



Building A Future For Engineering

Do universities need to
change the way
engineering is taught?



The Academy is
committed to engaging
higher education (HE)
and supporting
engineering work in
academia.



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Over to you



... for questions or comments!