Girls GETSET for careers in science and engineering

"PubIt!", "Imperial's very big" and "the challenge was great" were some of the comments received from girls attending the recent GETSET (Girls Entering Tomorrow's Science, Engineering and Technology) event at IC. GETSET aims to encourage girls to consider careers in science, technology and engineering prior to their selection of GCSE options.

The theme of this year's event was staging the pantomime Cinderella following the walkout of a production team. This scenario enabled the girls to tackle a variety of challenges based on the four project areas of design, chemistry, mechanical and electrical engineering. The girls worked in teams carrying out tasks such as building Cinderella's coach or designing her dress, with each team being assigned female mentors who were either academics or in industry. Also present at the event were TV presenters Johnny Ball and Kate Bellingham.

This is the second year GETSET, a part of National Science Week, has been held at Imperial and judging from the feedback received from the 200 girls aged 13-14 who took part, it was a resounding success. The two-day event was organized by Schools Liaison with support from Public Relations.

Imperial students score high in top flight scheme

Imperial College has been awarded 264 Top Flight Bursary Awards for 1994-95. This number is second only to Cambridge University (with 331) and means IC students will share £132,000 this session.

The scheme offers a scholarship of £500 a year to students entering their first year of an accredited engineering course with grades AAB at A level (or an equivalent qualification). They must also meet certain residential requirements.

The Government introduced the awards for the first time this year to attract bright and talented young people into engineering. The scheme will be in place for students arriving at College in 1993 and 1996.

The Registry ensured maximum publicity around the College to enable all eligible students to apply for the bursary. The greatest number of awards (68) was given to Mechanical Engineering students.

Other students who received awards are in the following departments:

- Electrical Engineering (48)
- Computing (47)
- Aeronautics (33)
- Chemical Engineering (31)
- Civil Engineering (28)
- Materials (2)
- Material Resources Engineering (1)

IN BRIEF

25 years of computing

The Department of Computing was founded 25 years ago. As part of the celebrations to mark this anniversary the Department is holding an Open Day on Wednesday, 17 May 1995. The programme aims to show the enormous growth and change in the Department's research profile over the last 25 years and to describe some of the new and exciting developments.

Further details from Dr Teresa Sargent, extension 46855.

Barton receives Priestley Medal

On 4 April Sir Derek Barton was awarded the 1995 Priestley Medal, the highest award of the American Chemical Society, in a ceremony in Anaheim, California.

Sir Derek, who won the Nobel Prize for Chemistry in 1969, taught at Imperial College from 1957 until 1977. He now teaches at the Texas A&M University.

Science writing rewarded

John Emmsley's book The Consumers' Good Chemical Guide has been shortlisted for the 1995 Rhone-Poulenc Prize for science books. John Emmsley is the science writer-in-residence at Imperial. The prize, worth £10,000, will be awarded on 24 May at the Science Museum. The Consumers' Good Chemical Guide was reviewed in IC Reporter (issue 4).

Dean chosen as council member

Professor Julia Higgins, Dean of the City and Guilds College, has been chosen as one of the first members of the new Council for the Central Laboratory of the Research Councils. The Council is responsible for the Daresbury and Rutherford Appleton Laboratories.

Albertopolis bid

The South Kensington Consortium submitted its bid for the Albertopolis project to the Millennium Commission on 28 April. The Commission will announce its short-listed projects in June.

Engineering students accept kit car challenge

In Imperial engineering students forgot about looming exams recently to build a kit car in the Top Gear Westfield Challenge. The BBC programme Top Gear, the most popular car programme on television, organised a feature with four teams building Westfield kit cars in a head-to-head competition.

The Imperial College team was pitted against a team of 'Black Street Garage Boys', the successful Ford Ka salesman Andy Rooke, British touring car championship team, and a team made up of Top Gear presenters Jeremy Clarkson and Tiff Needell, and other Top Gear staff.

The challenge was to build a Westfield Kit Car (0-60 mph in 5.5 seconds, top speed 120mph) from hundreds of individual components and complete one lap of Brands Hatch race circuit.

The students showed great initiative in visiting the Westfield factory the day before the event. Under the guise of a potential purchase they obtained build diagrams and instructions, and planned a strategy.

The team finished third with a build time of three-and-a-half hours, managing to trounce the Top Gear presenters. The professional 'petrol heads' from Ford emerged as runners, with a time of two hours and ten minutes and the Black Street Garage Boys took second place.

Team leader Simon Ransoms said of Imperial's performance: "For the first hour we were neck and neck with the Garage Boys - unfortunately we had a problem with our brakes which cost us a lean half an hour.

'The Westfield Challenge will feature in Top Gear magazine and will be shown on Top Gear on Thursday 11 May (BBC2, 20.30 hours)."
Media mentions

Multi-million pound business success for alumnus

As perithal alumnus was profiled in a recent issue of Computer Weekly (20 April).

Lance Whitehouse graduated from the Department of Computing with a first class degree, founded a company called Quinavinc which specializes in software development. Originally a one-man business run from a sitting room, it now has 12 employees, a blue chip client base and an annual turnover of over £2 million.

Dangers of being a big bird

Dr David Butler, head of the Department of Biology, has some recent research on the extinction of birds reviewed in The Guardian (17 April). He advocates the theory that larger, heavier birds are more likely to become extinct than smaller species. The research, car-

ried out in conjunction with Kevin Curran of the Natural History Museum, concludes that being big is perilous, possibly because bigger birds have smaller populations and breed more slowly than their small-bodied cousins.

Chemist doubts link between global warming and CO2

Dr Jack Barrett was interviewed in the recent pages of The Times (17 April) when he cut down on the truth of man-made global warming. Dr Barrett, Department of Chemistry, remains unconvinced that carbon dioxide is the principal villain. He argues that the first 200 feet of the atmosphere already contains enough carbon dioxide to absorb the extra radiative forcing emitted by the Earth in the infra-

red: adding any more cannot increase the amount absorbed.

Sucking minerals from the sea

Dr John Barrett, Department of Geology, was interviewed on the John Murray programme, BBC Radio 2, on 3 April about deep sea mineral reserves. He discussed how such re-

serves could be mined using a large suction device and as such helped to reveal some of the resource problems that might arise from this.

IC professor named president

The Times (12 April) reported the election of Tony Ridley, professor of transport engineering, Civil Engineering, as the 133rd president of the Institution of Civil Engineers. The election followed the sudden death of former president Edmund Hamblly. Professor Ridley will serve for 10 months before his term ends on 5 November 1996.

New safety design for ferries

Dr Cecil Laming, Mechanical Engineering, had a letter to The Times printed on 24 April. The letter was in reaction to the piece in the daily on roll-on, roll-off ferries, suggested division of decks by horizontal barriers and draughting to reduce the impact of water entering a dam-

aged ship. Dr Laming asserted that others have made proposals to improve safety, such as alarms and closed-circuit television, did not conform intrinsic sit-

uation weaknesses of roll-on ferries directly enough.

Research in progress

Improving drainage for developing countries

Imagine you living in a one-room shack with eight other people. Imagine the mud everywhere, running in sludge heaps between the shack.

The urine at the end of the lane is so filthy that waste is pouring into the lane. Even the open drains are clogged with garbage, excreta, and other filth. According to Dr David Butler, Department of Civil Engineering, this is the grim reality for millions of people in the developing world. David Butler, along with Peter Kirby (London School of Hygiene and Tropical Medicine), is working on an Overseas Development Administration-funded project in India to evaluate the performance of surface drainage systems in low-

income countries.

Having used sophisticated monitoring equipment and computing techniques to improve the situation, David and Peter hope to suggest affordable, sustainable ways of improving the performance of new or existing drainage systems.

The view from the tower by Don

"Spring is here, the birds are in full song, thoughts of doing bit of research come to mind. But wait! The old brain is supposed to be working, something dark and unpleasant. I've forgotten all about examination Spring, books and revision cards. The mind darkens with thoughts of hours of reading and marking stuff! I don't want to be examiner by students who don't want to do it. People become ausk because they enjoy teaching and sometimes (or) research. But it would take perversity of an unequalled order or some to say that they enjoy marking. For students too, exam time is only rarely enjoyable, often it is a time of anxiety and sometimes a time of fear and desperation. Could this state of affairs be changed?

I ask the question because I have a brilliant answer, but because the question is more about fear and less often uttered. It seems almost heresy to suggest that there may be alternatives some of which are obvious. I think too much use of oral examinations, for example. As I utter this thought the objections ringing in my ear: subjective, time consuming, hard to standardize, disadvantageous the shy person, etc. I have the part in oral examina-

tions in other parts of Europe. Such objections would never have crossed my mind. Only probably lack less time than written papers both for students and staff and have the added advantage of the knowledge gained through human contact. Of course, much has to do with what one is used to, but this

should left inhibit a broad discus-

sion. After all, the object of the task is clear: to find out whether students know what they are sup-

posed to have learned and award a grade on a scale that need not be more accurate than one in five. Marks such as 73.2% would be allowed. Our aim is to be fair and discuss about putting border lines between, say, 73.7% and 72.1% are just as far. As another alternative, information technology could change into the picture. I say not how, but it poses to scope for the view of imagination. I once visited a US university where in some subjects students were allowed to grade themselves. If the faculty agreed with the grading, the grade would stand. If they disagreed, the student would proceed to an exam. Unlikely is that students were too ready to flunk themselves.

So from my perch on the tower, I look down into the Sheffield office of the Pro-Rector (Teaching Quality). I know that, for excite-

ment, he has asked us to experi-

ment with double blind marking. This may be quite interesting within the present system, but sadly it doubles the dubious plea-

sure of pouring over scripts. So far even greater excitement, the Pro-Rector encourage some experimentation, or even just debate, on making the examination process more fun! This need not needs less accuracy or fairness - procrastination makes fun seem irre-

sponsible. Precisely the opposite could be true."

Charity events

Just bin it

A bigfight Adavets, an MSc student, is organising an aluminium can recycling campaign within the College. The proceeds will be donated to the UK charity, Raleigh International.

In October Abigail will be embarking on three month'svol-

untary work in Guyana, South America with the charity. She and other volunteers will work with government agencies to set up remote communities. They will assist with immunisation programmes, nutrition and health surveys and maternal screening.

Working alongside the Forestry Commission staff at Morwell Forest Reserve they will help with survey work. By cutting and marking the reserve boundary this ecologist of students using the Union advice service that students' financial hand-

ship continues to increase, say the Union advise team, Minerva Kavuk and J Cammisa.

"The budget at the end of last year was not good news for students," Minerva continued. "All in all, this year, funding may be cut by £25 million in each of the next two academic years. And IC students are not immune to these changes."

They hope to promote staff awareness of the money problems facing some students, especially during the summer term. "Exam time must be the most stressful part of the year for many students. Those with existing financial difficulties may be under considerable pressure."

College staff can help by being aware of these problems and refer-

ing any students suffering stress to who may be able to help, such as Minerva Kavuk and J Cammisa, the Student Counsellor or the College Tutor.

Union Adviser urges awareness of problems facing students

Mountain walk to help cystic fibrosis sufferers

Jane Thompson and Anne Kemp are planning a 26-

mile sponsored walk up Ben Nevis, in behalf of cystic fibrosis sufferers.

They have purchased fake walking boots and are currently being plan-

ning the big day on 30 June. Many of you will know that St Mary's are doing extensive research into this genetic disease so funds raising by IC employees is particularly apt.

They would like to raise as much money as possible. If you would like to contribute please contact Susan or Karen on exten-

sions 4959 or 4999. They would be delighted to assist you wish information on how to pledge your money in advance of the Walk.

Details of how they funded and how much sponsorship was raised by Imperial will be hitting the IC Reporter headlines at a later date.

Jane Thompson is a Business Assistant in the Finance Division and Anne Kemp is the Conference Manager.
BOOK REVIEW

Eco-babble explained

Review by John Emsley

Challenge and opportunity

Professor John Caldwell looks at the approaching medical mergers and the new Imperial College School of Medicine.

John Caldwell on the new clinical teaching and research facilities.

We are now tantalisingly close to finalising funding arrangements for the new Biology and Basic Medical Sciences Building which, filling the space on the south side of the Queen's Lawn between R.C.S. I and Chemistry II, will be the most tangible evidence of ICSM for most people working at South Kensington. This will provide a superior home for Biology and direct links with most important collaborating departments. It will provide a teaching and research centre of the highest possible quality which reflects the place of biomedical science within the science and technology community of the coming century.

The new building will be a major aspect of the desired biomedical focus of the College. It will also enable ICSM to develop closer teaching and research relationships with the science and engineering departments on campus, in addition to pre-existing links with the teaching hospitals.

The MIB ESS council will run for almost six years with a student intake of over 250 per year. While details of the new curriculum remain to be finalised, the students will spend about three years in the new building. The life of the medical student is traditionally a rich one and this student body will bring a great deal to the academic, social and sporting life of Imperial College. It is essential that value be added to the education of scientific, engineering and medical students by maximising their interactions within the highly co-operative environment of IC as a whole.

The hymn writer H.F. Lyte took a view that was to be expressed as a motto, 'Change and decay in all around I see'. We are going through a period of unprecedented change in London medicine, which many people are already finding uncomfortable and unsettling. But standing still is never an option and change presents once-in-a-lifetime opportunities. We can be confident that the future development of medicine within IC towards a clear goal of using the best of modern scholarship to the benefit of human health.

John Caldwell is Professor of Biochemical Toxicology and Deputy Dean at St Mary's Hospital Medical School.
Letters to the Editor

Short term contracts

Dear Editor,

I was pleased to read that the Rector should write such a long reply to my letter. He accurately raised the problem but he did not answer my questions. UCL and IC have very similar financial positions; in 1994 UCL transferred £2.4 million to reserves and IC £7 million. Why can UCL act to improve career prospects for contract research staff while IC does not?

Sincerely,
[Signature]

Dear [Name],

I am pleased to see that your letter was published in the most recent issue of _The Times_. Your comments are always welcome and appreciated. If you need any further assistance or have additional questions, please do not hesitate to contact me.

Sincerely,
[Your Name]

VAT slogan

The winner of the slogan competition will be announced in the next issue of IC Reporter. Many slogans have been submitted, so the judging process is taking longer than expected. The slogan also has to be approved by the VAT man.

IC Reporter

IC Reporter will be published fortnightly during term time. Contributions for the next issue should be received by Friday 12 May.

Fire alarm notice

Since April, following discussions with the Fire Authority and in close liaison with departments and careers, the Fire Alarm system on the main campus will switch to evacuation at 2 minutes 30 seconds. The signal will be a long alarm, followed by a short alarm.

Senior Christian Fellowship

Morning meetings: Tuesday 13.00-14.00 hours during term time, in room 486, Huxley Building, for bible study, prayer and discussion.