New research could cut greenhouse gas emissions

The University of Sussex is one of seven European institutions to be awarded grants for research that could lead to "carbon-neutral" power stations. The EU Environment and Climate Programme is sponsoring a project that will simulate the predicted rise in carbon dioxide levels for the next century; the researchers will then show how tree plantations, which mop up carbon dioxide, could be used to provide fuel for power stations that no longer increase levels of the gas in the atmosphere.

"We are building a 'mini greenhouse world'," explains Dr Gail Taylor of BIOLS, who will receive a share of the funding. "We want to see how effective this system is in taking out the gas and what the long-term consequences of the carbon dioxide rise might be."

Forecasters have predicted that the atmospheric concentration of the gas is set to double by 2050. Trees can absorb the gas, helping to ease its harmful effects on the environment -- in theory they could provide a "carbon-neutral" fuel of the future. Mopping up carbon dioxide while they grow and releasing it when they are burnt, they could help Britain fulfill its obligation to increase its use of renewable, non-polluting energy resources.

Through the Non-Fossil Fuel Obligation, Britain is committed to developing wood-burning power stations. Coppices of fast-growing poplars may turn out to be the most beneficial use of the 600,000 hectares of set-aside land that come out of agricultural production each year. "It's possible that, by 2025, this type of wood biomass energy could supply 10 per cent of UK demand," says Gail Taylor.

The plantation, sited in Tuscany, will be composed of six small groups of trees. Carbon dioxide will be piped into the air around three of the groups, raising the atmospheric concentration of the gas to that predicted for 2050. Work is about to begin on building the facility, and it should be operational by next spring.

LIFE, BUT NOT AS WE KNOW IT

Hundreds of scientists, philosophers, and artists will be meeting in Brighton at the end of July to discuss and exhibit the most innovative work in the field of Artificial Life.

The European Conference on Artificial Life (ECAL 97) is the major world conference on this area of research, and it is being hosted by the University's own Artificial Life researchers -- Sussex boasts the largest AL research group in the world.

"It's to gather together researchers from a wide range of disciplines," says Phil Husbands, one of the conference organisers. "We're trying to understand various aspects of life-like phenomena -- things which occur in natural life and also occur in artificial things such as robots and computers."

About 300 researchers are expected to attend the conference, which will take place at Brighton's Metropole Hotel. Academic debate will be complimented by a programme of public events designed to provoke thought and challenge ideas about the way we think about our existence and our environment.

A series of public lectures, given by three prominent biologists and sponsored by the Times Higher Education Supplement, will examine the reason we organise ourselves into social groups, the way we grow from a single fertilised egg and whether Darwin was right in his theory of natural selection. There will also be an exhibition -- the first of its kind -- presenting cutting-edge research from an artist's perspective. Exhibits, which are coming from all over the world, will include video installations, robots, interactive cinema and an ants' nest.

THE REAL LIFE LECTURES
27 — 29 July 1997
Pavilion Theatre Brighton
7.30 — 9.00pm
In brief

Open Afternoon
Head teachers, advisors and representatives of careers and youth services were among those gathered in the Meeting House last Thursday for the launch of USIE’s new Continuing Professional Development Programme. The opening addresses were given by Harry Kroto and Joan Bliss, the Director of USIE, and the launch was inaugurated by David Lepper the new MP for Brighton Pavilion — whose association with the University stretches back to his time as a PGCE student in USIE. The range of full and part-time courses on offer from this October include two new programmes: an MA in Children and Young People: their Personal Linguistic and Cognitive Development and an MA in Equality and Social Justice in Organisations.

☐ Just published
The latest Sussex European Institute working paper, A missing debate? Hungary and the European Union, has just been published. The paper by Tibor Navracsics (Faculty of Law at the Eotvos Lorand University, Budapest, and visiting Leverhulme Fellow at the SEI), discusses the emergence and development of the European issue in Hungarian politics. To order a copy, price £5, contact the Institute on (67) 8578.

☐ Letter to Cyril
Dear Cyril Squirrel,
If I can distract you for a few minutes from your rummaging in the Gardener Arts Centre bin (yes, we can see you from our vantage point in the Library), I’d like you to say to our co-workers and students that we are all equally important at home time!

There has been some amazingly inconsiderate and dangerous behaviour on the exit road of the campus. As well as the few selfish ones using the Lewes lane when they intend going straight across, last night (when the two lorries were attempting to mate at Ashcombe Farm) revealed that some come out from the Science car park and use the on-coming traffic lane to bypass cars queuing to get straight to the roundabout.

This is extremely dangerous for traffic entering the University who would not be expecting to meet a vehicle head on!

Please could this selfishness stop before the inevitable happens.

Helen Swyer, Reader Services, University Library

News

How was it for you?
COGS MSc students from the Human-Centred Computer Systems course put BIOLS teaching software under the microscope recently.

As an important part of their course work the MSc students are required to evaluate a piece of software, using a questionnaire of their own design. Their tutor, Dr. Frances Aldrich, was keen to find them a real client so they could gain work experience.

Fortuitously, new and unevaluated software was waiting in BIOLS, the only School in the University to have its own educational technologist. Sally Wilks had just produced a computer-based course on plant physiology for BIOLS undergraduates. Did BIOLS students love it or hate it? BIOLS needed to know and COGS MSc students needed an evaluation assignment. The obvious solution — let the MSc students loose on the BIOLS software and the undergraduates.

The MSc students met Sally in February for their first 'client briefing'. Paul Bello and Jon Rimmer were appointed to liaise with Sally and handled the extra responsibility with great professionalism throughout. The project culminated in March with a presentation of findings by the students, and written reports followed. This tight time schedule focused the minds of all taking part and the project moved at a fast pace. "It was an invaluable opportunity for us to gain some real-world experience" said Paul Bello. "It was hard work but it was very motivating to know that someone genuinely wanted our findings."

The COGS evaluators found BIOLS undergraduates regard the software as a valuable complement to lectures and practicals, and an enjoyable way to learn. It is straightforward to use and the students especially like being able to work through it at their own pace, at times of their own choosing. A sigh of relief all round! However, a number of students are not yet taking up the option to use the software. This discovery emphasises the need for teaching software to be thoroughly integrated into the course it supports. This year the software was presented as an optional 'extra' but next year it will form an essential part of the course materials. In the meantime Sally is implementing the changes recommended by the evaluators and undergraduates as well as developing new coursework.

Magnetic scanner should frustrate the forgers
A device invented at the University of Sussex could be used to detect forged banknotes and cheques. Professor Terry Clark and his research team in CPES have taken the magnetic recording head from a standard video recorder and made a scanning device that can expose notes that have been forged or tampered with.

The device has already been used to scan US dollar bills, giving a magnetic picture that shows up every detail of the notes.

American banknotes are printed with magnetic inks — the video recording head makes a magnetic image of the note just as it would normally make a magnetic recording of a TV programme. Forgeries or alterations to the notes give a different magnetic picture: although the changes may be invisible to the eye, they will show up on the magnetic scan. Currently, using just one recording head, it takes a few minutes to scan a banknote, but the researchers hope to put several heads together to make an array that will scan notes in significantly less time.

British banknotes don’t use magnetic inks, but our cheques do, and the new device could make a forger’s job impossible. There are other potential applications, not least of which is the possibility of detecting pirated cassette tapes. As with the forgery of banknotes, illegal copying of audio and video tapes is a skilled profession, and forgers are currently finding ways around many of the measures used to mark originals. The magnetic scanner would provide a new way of checking the tapes, and it would be hard to fool. “With the kind of detail that can be exposed, the difference between a pirated production and a bona fide one would be obvious,” says Terry Clark.
PEOPLE, PRIZES AND PROMOTIONS

New Appointments

BRIAN ROBERTS, Professor of Engineering, is to be appointed Pro-Vice-Chancellor for the period 1 August 1997 to July 2000.

MICHAEL HAWKINS (EAM) – Director of Student Services with effect from 1 August.

MARC WILLIAMS – Director of the Graduate Research Centre for the Comparative Study of Culture, Development and the Environment.

ROGER SILVERSTONE is re-appointed as Director of the Graduate Research Centre in Culture and Communication until July 2000.

STEPHEN FENDER is re-appointed as Director of the Graduate Research Centre in the Humanities for a further year to July 1998.

Professorial Appointments

DEBORAH CHERRY, at present Senior Lecturer in the History of Art at the University of Manchester, is appointed to the Chair in the History of Art with effect from 15 September.

The following have been promoted to professorships from 1 July 1997:

MIKE PENDLEBURY (CPES) to a Professorship in Experimental Physics.

PETER WAY (EAM) to Professor of American History.

PAUL GOUGH (ENGG) to Professor of Space Science.

MICHAEL HOBDAY to Professorial Fellow in the Science Policy Research Unit.

NICK VON TUNZELMANN (SPRU) to a Professorship in the Economics of Science and Technology.

CRAIG CLUNAS (CCS) to a Professorship in the History of Art.

BEN GRAHAM (CPES) who has just completed his second year in Physics with Management, has been awarded the CIMA/Van den Bergh Foods prize for being the best management student after two years of study. Ben will receive a cheque and certificate in October.

Director of SPRU, BEN MARTIN was awarded the 1996 Derek de Solla Prize from the journal Scientometrics (with John Irvine).

We are pleased to announce that BLAIR WORDEN (EAM Professor of Early Modern History) was elected a Fellow of the British Academy last week.

Former student RICHARD MORRIS (DPhil in Experimental Psychology 1969-73) has recently been elected a Fellow of the Royal Society.

MARGARET MCGOWAN is standing down as Senior Pro-Vice-Chancellor on 31 July after four years in office and will be retiring from the University on 30 September this year.

DAVID STREETER will be retiring from office as Pro-Vice-Chancellor at the end of this month after serving for over eight years.

Facing the past

RICHARD WILSON, Social Anthropology lecturer in AFRAS, has just returned from six months research on the South African Truth and Reconciliation Commission, funded by the ESRC. The Commission, headed by Archbishop Desmond Tutu, has been holding hearings to investigate past abuses under apartheid, as well as to grant amnesties and recommend reparations. The hearings have revealed a great deal about the apartheid security apparatus, but victims have unsurprisingly opposed amnesty for offenders. However, the Commission’s greatest challenge is to both reconstitute a plausible account of the violent past, and yet still create the basis for the future unity of the nation.

Wo(man) of the Year

ROBIN STREET of the Development Office was flattered to receive a nomination for Woman of the Year from the American Biographical Institute. The Institute took into account Robin’s ‘overall accomplishments and contributions to society’ – the award is reserved only for women who have ‘significantly enhanced world communities and professions’. Robin was especially delighted with the nomination since, as a man, he thought he might have been excluded. Equal opportunity is obviously being taken very seriously by those on the other side of the Atlantic.

In brief

RESEARCH OPPORTUNITIES

This is a selection of Research Opportunities. More details of these and other opportunities are available from Mylène Powell in the Research Grants and Contracts Office, ext 3812 or email: M.Powell@sussex.ac.uk. For an extensive listing of funding opportunities see REUNDF linked to the Research web site: http://www.sussex.ac.uk/Units/research or SIS Home Page, select ‘Teaching & Research’, ‘Research Funding at Sussex’.


DEPARTMENT FOR EDUCATION AND EMPLOYMENT DIVISION PROSPECTUS: invites outline bids for development projects in England which strengthen further the links between higher education and employment and increase the levels of interaction between the two sectors. Deadline: 29 August 1997.

BBSRC STUDENTSHIPS: applications invited for BBSRC studentships, CASE and industrial CASE to start 1 October 1998.

ESRC HEALTH VARIATIONS RESEARCH PROGRAMME PHASE 2: outline research applications invited. Phase 2 of the Programme will seek to advance understanding of why there are persisting and widening socio-economic variations in health in advanced societies. Deadline: 30 Sept 1997.

BRITISH ACADEMY VISITING FELLOWSHIPS FOR YOUNG SCHOLARS FROM THE FORMER SOVIET UNION: applications invited from British scholars, on behalf of potential Visiting fellows. Deadline: 31 August 1997

UK/HONG KONG JOINT RESEARCH SCHEME: The British Council invites applications. This scheme is designed to promote research collaboration between British universities and 7 higher education institutions in Hong Kong. Deadline: 1 October 1997.
Noticeboard

Changing Face of Campus

The Estates Division is undertaking the following work. Please take care in the vicinity of the work, and stay outside any safety barriers.

- **Work in progress**
  - Bicycle racks: upgrade of existing and installation of new racks continues.
  - Arundel Building (used to be AFRC): major repair and refurbishment. Levels 2, 3 and 4. Completion due August.
  - Campus Signposting: removal of redundant signs and improvement of building name signs.
  - East Slope (Phase II): refurbishment. Blocks 10, 13 and 14, July to October.
  - External Decoration: BIOLS (Research I) and CRPC.

- **Planning applications**
  The following applications for listed building consent (LB) and planning permission (FP) are being submitted, and a copy may be seen at the Estates Building Reception:
  - Chichester I: internal alterations and upgrading to provide new teaching laboratories and research laboratory including new external fume extract stacks. (LB and FP)

**Development Opportunities**

Funding may be available from Staff Development for faculty to attend the following events. Please contact the Staff Development Officer, ext 3849, for details of these and other events.

**Second International Conference on Assessment of Student Learning in Colleges and Universities** University of Northumbria, at Newcastle 3-5 September 1997

**Improving Students as Learners** Oxford Centre for Staff and Learning Development, at Strathclyde 8-10 September 1997

**Using Technology to Enhance Learning** Oxford Centre for Staff and Learning Development, at Birmingham 11 September 1997

**Equal Opportunities and the Curriculum** Oxford Centre for Staff and Learning Development, at Oxford 12 September 1997

**Help wanted**

Volunteers needed to help with the running of a conference at Sussex on the 22 and 23 September. The conference is called ‘New directions: postcolonialism, histories and identities’ and will include speakers from a wide range of countries. Volunteers would assist with registration, bookstalls and directing participants to venues. All volunteers would have the chance to attend some sessions. Anyone interested please contact: C.J. Lupton@sussex.ac.uk, ext 2908.

Term Dates 1997/98

- **Autumn Term:** Mon 6 Oct – Fri 12 Dec
- **Spring Term:** Mon 5 Jan – Fri 13 March
- **Summer Term:** Mon 20 April – Fri 26 June

**Tennis Tournament**

Sunday 27 July from 2pm at the Pavilion: mixed doubles tournament. Maximum: 12 pairs. To enter your team, £2 per pair, phone the Sportcentre 8228.

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Small ads cont’d

- **FRENCH GIRL** aged 17 seeks summer job as au pair. Contact Sue Collard on 2057.
- **MATHS TUTION** for GCSE, A level and university courses offered by professional maths PhD with teaching experience. Call 556699.
- **HOLIDAY LET** in Jimena, Southern Spain. Archaeologist’s restored beamed house overlooking gorge. Sleeps five. En suite baths. £125-£195 per week according to season. UK phone (Kenyon) 01803 873303; Spain (Sassoon) 34 56 640561.
- **ADMINISTRATIVE ASSISTANT:** part-time general office duties, computing skills required. Company on campus, Gerpapk Ltd on 704470.
- **FRENCH LANGUAGE** tuition or translation service offered by native speaker. Widely experienced, from toddlers to pensioners. Call Delphine on 670420.
- **HOLIDAY LET:** Andalucia. Traditional village house situated in foothills between Gibraltar and Rhonda. Sleeps 5. 2 bathrooms, terrace and patio. Phone: 734425.
- **FOR SALE:** diving wet suits: excellent condition. One medium trouser and jacket set, £40, and one small jacket, £20. Contact a.h.scott@sussex.ac.uk.
- **WANTED:** mido compatible keyboard. Contact Steve 67(8862) or 735517 (s.brewer@sussex.ac.uk).
- **FOR SALE:** telephone and answering machine. Binatone, slim white push button phone, usual features, wall or desk. Murphy Richards TX200 answering machine, easy to use, reliable. £30 ono for both. Andy on 2765 or (0336) 767144 messaging.
- **FOR SALE:** Nike Nguba II SPD shoes size 8.9, excellent condition inc. cleats. £25. Specialised ‘Team Force’ helmet, good cond. £10. Madison D’Flex MTB glasses, just amber and clear lenses hence £5. Ring Andy as above.
- **FOR SALE:** Goretext “Wind Stopper” fleece jacket by Mountaincraft (large). Smart, warm and wind-proof, excellent condition, little used. £50 ono. Ring Kay as above.
- **FOR SALE:** Volkswagen Polo hatchback. 1987/E, “Ranger” model: 1300 engine, 5-speed gearbox, sunroof. £1500 ono. Call 476048

**Bulletin**

This is the last Bulletin until the start of the Autumn Term. Hope you all have a good summer vacation. We welcome your ideas, contributions and letters. Please keep in touch - we can’t keep you informed if you don’t inform us.

Published by the Information Office, Sussex House, ext. 8209, email: Bulletin@sussex.ac.uk

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**Library Extension and Refurbishment**
Sussex in the 21st Century

The Council received a report from the Vice-Chancellor which summarised the comments expressed by members of the University on the 21st Century Task Force Report and his document “Seeking a Vision” The report contained a set of recommendations for action on a range of key issues facing the University including teaching and learning, research and finances and structures. The Council noted that the report had been considered by Subject Groups, GRCs and Schools throughout the University and had been the subject of a full and detailed discussion at Senate. It further noted that the Vice-Chancellor was setting up a small steering group chaired by Alasdair Smith, the incoming Senior Pro-Vice-Chancellor, which would be working as quickly as possible to produce a report on desirable outcomes in respect of structure and budgetary mechanisms on the Arts side of the University.

Undergraduate Medical School

At its meeting in July 1996 the Council gave its general support to the proposed development of an innovative undergraduate medical school. It was, however, insisted that capital and recurrent costs should be clearly and thoroughly defined and agreed that the University should engage an external consultant to undertake a full costing exercise. The Council received the report on the costing exercise and approved the establishment of a Medical School Development Group as a joint working group of itself and the Senate. The Council agreed that, in consultation with partners, the Group should arrange for a fully-costed proposal to be drafted and submitted in response to any national competition on the basis that all the University’s capital and recurrent costs are fully covered by grant and fee income. It should also arrange for the Council to consider any proposal to establish a medical school in advance of any acceptance of an offer of national funding and should implement those aspects of the Council’s earlier decision that have not yet been addressed, namely to make enquiries of selected universities with medical schools in order to learn from their experience of problems in obtaining capital and recurrent funding and in allocating it within the institution.

Language Centre Review Group

The Council received a Report from the small group set up to review the role and nature of the Language Centre within the University, especially in relation to the provision of Modern Language Teaching, English Language Support for international students and the provision of open learning courses. As part of the review, the Group also considered the management structure of the Language Centre, its financing within the University’s budgetary system and its potential for additional income generation and its relationships with other units of the University. The Council welcomed and approved the report subject to a further report on the financial arrangements for the Centre by the Budgetary Review Group.

Budgetary Review Group

The Council received the first Report of the Budgetary Review Group, the aim of which had been to devise a budgetary system which was robust and would allow Deans and Directors to plan ahead with greater certainty. The Group’s work was in two stages: firstly to introduce greater transparency and simplification into the budgetary procedures for 1997-98 and then to consider further issues for subsequent years. The Report’s principal recommendations for 1997-98 were a simplification of the resource allocation system, a mechanism for reviewing priorities and problems as they arose through the creation of the Budget Sub-Committee of the Planning & Resources Committee and transitional arrangements for the
introduction of its recommendations to avoid unmanageable perturbations for individual units.

The Council agreed to adopt the proposals of the Budgetary Review Group as set out in the Report, noting that further work was needed in the light of issues raised in discussion at the meeting of the Senate in June and subsequently, and the implications of structural change, especially on the Arts side of the University.

**CPES Implementation Group**

After the Finance Officer had outlined the seriousness of the financial situation facing the University, the Vice-Chancellor introduced the report of the CPES Implementation Group. He referred to the crisis affecting CPES, which threatened the financial well-being of the whole University, and to the need, in addition to increasing income and making other savings, to reduce staff numbers in the School. He expressed his wish to do so by voluntary means if possible and described the strengthened procedures for re-deployment and enhanced terms for the voluntary severance scheme proposed by the Financial Review Group to that end.

The Vice-Chancellor recommended that the Council should accept the Senate motion not to embark on compulsory redundancies in CPES without ensuring that all possible ways of reducing expenditure had been considered, and that the Council should not delegate the implementation of redundancy procedures to a sub-Committee. The Council accepted the Senate resolution and agreed to defer a decision on the declaration of redundancies in CPES to allow more time for voluntary staff reductions and other cost-saving measures which might obviate the need for compulsory redundancies. It also agreed, in the light of the Senate recommendation, to meet again in November if the financial situation of the School in the early Autumn suggested that a redundancy situation might exist.

**Financial Review Group**

The Council noted the reports on the work of the Financial Review Group and approved floor and cap transitional arrangements for phasing in its recommendations over the next two years. It also approved the outline budget for 1997-98 and agreed to delegate authority to the Planning & Resources Committee to approve any necessary adjustments within the overall total expenditure in the light of consultations with budget-holders. It further agreed to stand down the Group from 31 August 1997 and to pass the work of the Group to the newly established Budget Sub-Committee of the Planning & Resources Sub-Committee.

**Committee on Trading Services**

The Council approved a report from the meeting of the Committee on Trading Services which included revised rent levels for student housing in 1997-98.

**Equal Opportunities**

The Council received and noted the third Annual Report on Equality of Opportunity. Senate and Council approved an Equality of Opportunity Policy in June 1994 and the Policy provides for an annual review of its working and for the publication of a report indicating progress made towards achieving the policy and its objectives. The statistical evidence presented to Council included details of gender and ethnic balances among students and the gender balance and ethnic origin among staff in the University as a whole and within each budgetary centre.