

Supporting the tsunami disaster relief effort

The University is sending one of its leading emergency water supply and sanitation experts to Sri Lanka to help in the relief effort following the tsunami disaster.

Bob Reed, a senior programme manager from the Water, Engineering and Development Centre (WEDC), will be working for the World Health Organisation (WHO) whilst in the country. He will be offering advice and support to aid agencies operating in the area, trying to increase hygiene standards for the thousands of people left homeless by the killer waves and reduce the amount of sanitation related diseases.

Bob said: "I am pleased to be able to help in the relief effort and in the rebuilding of the country after such tragedy. It will take a long time and a lot of aid to get all the countries affected back to normal, but across the world people are trying to do their bit to help, and I would urge them to continue to support the relief effort."

WEDC is one of the world's leading institutions concerned with education, training, research and consultancy relating to the planning, provision, and management of infrastructure in developing countries. Its staff have worked on water supply, sanitation and waste management in many countries, including those affected by other natural disasters and war.

The centre is also supporting the tsunami disaster relief effort by providing free access to its online publications, which cover areas such as controlling and preventing disease, emergency sanitation and

emergency water sources, to all those involved in the relief effort. WELL, the Department for International Development-funded Resource Centre in Water, Sanitation and Environmental Health, which is managed by WEDC, is also offering printed copies of publications and up to one day of free expert technical advice to the emergency teams.

Ian Smout, the Director of WEDC said: "This assistance



Bob Reed is pictured working with a community in Northern Iraq in 2001.

will support the agencies providing emergency water supply and sanitation to make appropriate decisions for the local conditions based on good practice and the lessons from past experience of disasters elsewhere."

To view and download the free publications being provided by WEDC and for further information about the services being offered by WELL visit the WEDC website at wedc.lboro.ac.uk/ or call 01509 222885.

Loughborough University is offering support for all staff and students affected by the tsunami disaster. Its Counselling Service has

produced a virtual leaflet, which gives general advice for those who need support or are helping others.

Depending upon individual circumstances, the University can also offer financial assistance, counselling and psychological support, leave of absence, and release from academic commitments.

For full details on the help available and to download the Counselling Service leaflet visit the University website at www.lboro.ac.uk and click on the 'Asian earthquake tsunami disaster' button on the right hand side of the screen.

Specific fundraising for Indonesia's worst hit Aceh province is being made by Indonesian students and researchers at the University. For details email Ketut Astawa at K.S.Astawa2@lboro.ac.uk. All money raised will be distributed in the area through the Indonesian Red Cross.

As *news@lboro* went to press a team of 70 swimmers from the University were embarking on a 100,000m sponsored swim to raise funds for the survivors of the Asia tsunami disaster. The team were hoping to raise £10,000. A full write up of the event will be in the next edition of *news@lboro*.

Loughborough University would like to offer its deepest condolences to all those affected by the tsunami disaster.

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New name for Publicity Office

The University's Publicity Office would like to announce that it has been renamed the Public Relations Office.

The change is part of a Public Relations strategy agreed by EMG and will help to clarify the office's remit and bring it into line with similar functions elsewhere.

The core activities undertaken by the office remain unchanged. These are: PR planning; proactive and responsive media relations; community relations; production of some corporate publications, such as the Annual Report; some internal communications, including **news@lboro**; other corporate communications activities, e.g. maintenance of some sections of the University web pages.

Staff contact details also remain unchanged. These are:

Hannah Baldwin, Head of Public Relations, T: 2239, E: H.E.Baldwin@lboro.ac.uk;
Judy Smyth, Public Relations Officer, T: 8697, E: J.L.Smyth@lboro.ac.uk;
Alison Barlow, Community Relations Officer, T: 8696, E: A.J.Barlow@lboro.ac.uk;
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Sue Rowbottom, Public Relations Assistant, T: 2238, E: S.P.Rowbottom@lboro.ac.uk.

The office fax number continues to be 01509 223902. Further information about the role of the Public Relations Office and for the latest news about the University visit www.lboro.ac.uk/publications/



University Council considers first stage of Strategic Review

At its meeting in October 2004, the Council of Loughborough University considered a progress report on the extensive Strategic Review which commenced in April last year.

The review is considering the University's aspirations for the next 10 to 20 years, and the first stage has now been completed.

As part of the first phase, the views of staff and students have been sought.

During the next stage the University will be talking to a range of individuals, groups and organisations representing the wider community in which the University exists.

The Review is intended to consolidate the University's position as a top ten institution and to enhance its status as a leading research-led university.

It will look at how the University should best organise and develop its research and teaching, and its business partnerships and commercial activities.

One part of the review is looking at how all the land owned by the University can best support current and future activities.

The University is already involved in an ongoing process of developing its estate to meet long term needs; for example it has recently submitted an outline planning application as part of its residential strategy.

The University is also aware of, and welcomes, the aspirations of external groups, including the East Midlands Development Agency, Leicestershire County Council and Charnwood Borough Council, to see the development of a second Science Park within Loughborough. Any such project would require interested parties to work in partnership together and the University would wish to be actively involved in such a group.

Professor Phil Roberts, Deputy Vice Chancellor, said: "The University is optimistic about the future, and there are many opportunities to continue the remarkable progress of recent years.

The review is already helping to guide thinking about these long-term future developments.

"We must pursue excellence in all our activities. In addition to our important national and international role, we want to make a major and positive contribution, culturally and economically, to Loughborough and this region and to maximise the public benefit of our work. Aiming for excellence does not, of course, necessarily mean increases in undergraduate student numbers, and I'd like to reiterate that we have already taken steps to restrict our recruitment of UK undergraduates."

University honours influential people

At Loughborough University's winter graduation ceremonies, which took place in December, honorary degrees were conferred upon three distinguished persons in recognition of the outstanding contributions they have made to industry, business and society.

Sir John Gains – Group Chief Executive of John Mowlem plc, and graduate of the University – received the award of Honorary Doctor of Technology (Hon DTech), for his contributions to the construction industry.



Sir John Gains.

Professor Jim Miller, the recently retired Professor of Analytical Chemistry and former Senior Pro Vice Chancellor of the University, was presented with the award of Honorary Doctor of Science (Hon DSc), in recognition of his outstanding service and contribution to the University, and his distinguished career in analytical chemistry.



Professor Jim Miller.

And Guardian columnist Polly Toynbee received the award of Honorary Doctor of Letters (Hon DLitt), for her distinguished role in drawing public attention to issues of poverty, low pay and inequality.



Polly Toynbee.

New KTP Officer

Dr Victoria Baxter-Plant has recently joined the University as a Knowledge Transfer Officer within the Business Partnerships, Innovation and Knowledge Transfer Division.

Dr Baxter-Plant will be working with academics and companies to develop Knowledge Transfer Partnerships projects at Loughborough.

She has a strong academic background in Biosciences and Engineering and experience of technology transfer within the Biotechnology/Medical sector.

Loughborough helps Iraqi scholars

The University is helping to support the development of Iraqi academics by supervising three scholars from the war-torn country.

The academics are part of a group of seven lecturers who will spend the next nine months working with British companies and universities.

The Iraqis are in Britain as part of the Chevening Technology Enterprise Scholarship (CTES), which aims to add business skills to the technical knowledge of the participants. CTES is run by The Centre for Scientific Enterprise Ltd (CSEL) and funded by the Foreign and Commonwealth Office. Whilst in the UK the group will work on projects to commercialise technology and improve the competitiveness of the companies involved. At the same time, the lecturers will improve their own knowledge of the current state of the subjects that they teach in Iraq.

Mrs Luma ali Kamel, a mother of three and one of two women in the Iraqi group, lectures in the Computer Engineering Department at Baghdad University and specialises in the use of microcontrollers. She has also worked part-time with the General Systems Company, one of Iraq's few engineering businesses.

While she is in the UK, Mrs Kamel will spend her time working on a project at Jaguar, with academic support from Loughborough University, to develop analytical tools for testing component functionality and capability. She will be supervised by Professor Chris Backhouse, Dean of the Faculty of Engineering.

She said: "For many years I have had the role of teacher and educator. The CTES scheme provides me with a very welcome opportunity to upgrade my skills and to work with leading academic and industrial institutions. I would like to thank the CTES for making this opportunity available to me."

Professor Backhouse added: "The University is very pleased to be part of the CTES programme and to be able to help our fellow academics from Iraq. I am confident they will gain a lot from their time in the UK, and by working with them we will also benefit from their knowledge."

Professor Backhouse will also be supervising Mr Omar Al Kubaissey, who will be based alongside Luma ali Kamel at Jaguar. Professor Rob Parkin, head of the Wolfson School of Mechanical and Manufacturing Engineering Mechatronics Group will supervise Mr Fuad Khoshnaw, who will study at Loughborough.

ICoVIS Inauguration

Academics from across the UK, USA, Japan, China and Russia visited the campus last year to attend the inauguration session of the new International Centre of Vibro-Impact Systems (ICoVIS).

The University was chosen as the place to base the headquarters of the ICoVIS in recognition of the major contribution to research in the area of vibro-impact systems by Loughborough's Professor Vladimir Babitsky from the Wolfson School of Mechanical and Manufacturing Engineering.

Vibro-impact systems can be described as systems with frequent multiple impacts. Vibro-impacts processes can have a detrimental effect, for example, causing the so-called 'white fingers' disease (known as the Hand-Arm Vibration Syndrome) to hammer operators or catastrophic failures due to impact fatigue. The skilful use of these processes results in the introduction of principally new and effective technologies.

Vibro-impact systems can be used in diverse areas, such as mining and construction, medical and biomechanical applications, as well as for vibro-protection and ultrasonic machining. A major purpose of the ICoVIS is to bring together the expertise of vibro-impact processes accumulated in

academia and industry. It is envisaged that such collaboration provided by the centre will bridge an existing gap between the two. The Centre has strong industrial links all over the world and several UK companies also participated in its inauguration session.

The two-day session was opened by Loughborough's Pro Vice Chancellor for Research, Professor Neil Halliwell, who emphasised the extensive industrial connections of the University and its leading role in research in the vibro-impact area. The next major event under the aegis of the ICoVIS will be the first International Conference on Vibro-Impact Systems, which will also be held at Loughborough, in July 2006.

The ICoVIS currently involves several research centres and groups, as well as individual members from 25 countries. It is open to both academic members and industrial partners working in the area of vibro-impact processes and applications.

The Loughborough centre unites some 20 researchers from five departments across the University.

The Loughborough centre is supported by the Engineering and Physical Sciences Research Council (EPSRC).

Professor meets the President of Montenegro

A Loughborough Professor was given the opportunity to meet and chat with the President of Montenegro whilst attending a conference in the country last year.

Photograph courtesy of Professor Summers

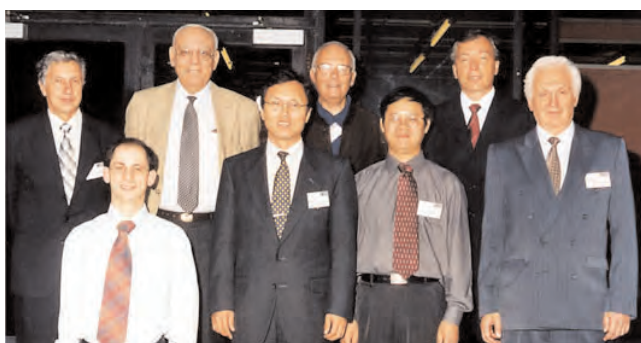
Professor Ron Summers from the Department of Information Science was at the IPSI-2004 Conference when he met Mr Milo Djankovi along with other members of the VIP forum.



Professor Summers chats with the President of Montenegro.

Since the aggregation of Serbia with Montenegro, the President also has the role of Prime Minister. Earlier in the day Mr Djankovi addressed the conference with an inspiring speech in which he covered the opportunities for collaboration in science and engineering between Serbia and Montenegro and the EU.

At the conference Ron presented his work on information architectures with applications to the UN Food and Agriculture Organisation, the UK Department of Health's National Programme for IT, as well as indicating future work in bioinformatics. As a precursor to the latter work, Hiten Vyas, one of Ron's PhD students, also had the opportunity to present his own work on the application of the semantic web to pharmacogenomics. Both presentations were well received and future research collaborations with other conference delegates seem likely, including projects with colleagues from Serbia and Montenegro.



Pictured from the left are members of the ICoVIS International Scientific Committee: Professor Vladimir Astashev (Russia), Dr Alex Mitrofanov (ICoVIS support officer), Professor Raouf Ibrahim (USA), Professor Masaaki Okuma (Japan), Professor Jerzy Najar (Poland), Professor Diangui Huang (China), Professor Vadim Silberschmidt (ICoVIS Director) and Professor Vladimir Babitsky (ICoVIS President).

Big Bang winner

Following the competition in the last edition of **news@lboro** the editor is pleased to announce that Jan Chesterfield from the Residential Organisation is the lucky winner.

Jan wins a copy of Big Bang, the latest book by the talented author and broadcaster Simon Singh. The book tells the story of the brilliant minds that deciphered the mysteries of the Big Bang theory.

Look out for other competitions in future editions of **news@lboro**.

World first for Loughborough-led termites research project

For the first time ever a multinational research team, led by Loughborough University's Dr Rupert Soar, has been able to capture images of inside the spectacular *Macrotermes michealseni* termite mounds of southern Africa.

The team of biologists and engineers recently spent two weeks in Namibia, Africa, completing the first phase of a three-year project aimed at scanning and understanding the structure and function of the mounds – and they have already unearthed some exciting results.

The termite-built towers, standing as high as five metres, epitomise structures that have been optimised for the harsh surroundings they are located in, displaying incredible feats of self-regulation to provide a constant living environment in which the termites can thrive. These wind driven machines, that ventilate the termites' colony, breathe at about the same rate as a cow and need to be large to continually refresh the air to the subterranean nests.

Understanding how the minuscule termites build these complex mounds may enable engineers and architects to develop new kinds of self-sufficient human habitats, which are able to tap environmental energy like wind and solar power to control their own climate. The biologists also hope that clues to fundamental questions about the evolution

of organisms will emerge from this work. During their first visit to Africa the team used specially formulated gypsum and casting methods to fill the internal ducts and channels above the nest, that form the respiratory system. After three days



The revealed cast of the complex air circulation system of a mound.A

Photograph courtesy of Rupert Soar

complex ventilation systems. The initial research has also given new insights into how termites in arid savannas cope with heat stress and scarcity of water.

During their next visit the team will begin digitally scanning the mounds, which will allow their three dimensional architecture to be mapped in a level of detail never achieved before. Using both the mound castings and computer modelling the researchers hope to unravel the mystery of how the structures are made.

Dr Rupert Soar of Loughborough University's Wolfson School of Mechanical and Manufacturing Engineering is leading the project. He said: "This study is unique in its cross-disciplinary approach, bringing in expertise in construction engineering, simulation, process engineering, physics, physiology, ecology and natural history. It seeks to understand how buildings may be customized for their environment for applications ranging from residential dwellings to self-sustaining, deployable, buildings for space. And judging by what we have found so far, this project could help us to develop some of the most exciting construction techniques ever."

The research is being funded by the Engineering and Physical Sciences Research Council and carried out with the cooperation of the Ministry of Agriculture, Water and Rural Development at the Omatjenne Agricultural Research Station near Otjiwarongo, Namibia.

East Midlands business sets up new scholarship at University

COPE, a Nottingham-based company, has agreed to fund a new three-year scholarship at Loughborough University.

COPE helps organisations manage sickness absence and ill health at work.

As part of their ongoing links with academia, the company has generously agreed to support a PhD student based in the University's Department of Human Sciences through the COPE Research Scholarship.

Claire Williams, who is researching expertise in ergonomics, has been selected to receive the scholarship.

Claire, who also works part-time for COPE, said: "I was delighted to be chosen for this scholarship. I am grateful for the opportunity to contribute new ideas and understanding to ergonomics; I hope it will help

further improve the services COPE is able to provide to its customers."

Neil Halliwell, the University's Pro Vice Chancellor for Research added: "We are grateful for this support from COPE. It is an excellent example of university/industry collaboration and testimony to the growing

reputation of the University in the area of healthcare."

James Bowden, COPE's Senior Director, said: "We are delighted to have been given this opportunity to formalise one of our many links with academia with the launch of the COPE Research Scholarship."

Loughborough researcher helps the BBC answer one of the biggest questions in human evolution

Were Neanderthals brainless brutes or sophisticated rivals to our own species? The BBC programme Horizon has assembled a team of experts to answer one of the biggest questions in human evolution.

Through archaeology, experiment, and anatomical investigation the programme looks at the Neanderthal in a new way to build up the most detailed picture of our ancient cousin ever seen and perhaps to suggest why they are no longer around today.

Neanderthals lived in Europe from about 200,000 years ago. They were tough and highly adapted to freezing conditions, but about 30,000 years ago they disappeared. It's always been thought that modern humans, moving into Europe from Africa somehow wiped them out – but the truth may be rather different. For tens of thousands of years it seems, it could have been the sophisticated Neanderthals that held the upper hand, before new technology, horrible environmental conditions, and sheer luck allowed modern humans to survive and consign the Neanderthals to history.

In the Horizon programme, to be broadcast early February, Professor Leslie Aiello of University College London visits a number of scientists to discuss these issues. She came to Loughborough to meet Dr George Havenith of the Department of Human Sciences to discuss the influence of body form on cold tolerance.

Dr Havenith said: "One of the major challenges to the Neanderthals was exposure to extreme cold in the glacial periods. It has been suggested that their body form, being short and muscular with short extremities, would provide a high level of cold adaptation. For the programme, we tested this principle in two volunteers with different body build: short and muscular versus longer with less pronounced muscularity.

"The volunteers were cooled in a water bath, during which their responses were monitored. Results confirmed that the shorter

muscular person indeed cools less in their body core, while the taller person cools down much faster and cannot stand the cold as long. Interestingly the skin temperature of the taller person is higher, so from the outside viewed with a thermal imaging camera this

looks warmer. However this is in fact caused by their lower insulation thickness allowing heat to come to the surface easier. The effect of individual characteristics like gender, body size and fitness level on thermal responses in humans has been one of our research areas for a while, so this query fitted well with our research interests."

Volunteers Gary Jones and Will Green, researchers at Loughborough University, had to endure the cold water for a substantial time for the experiment.

Talking about the experiment Will Green said: "It was interesting to see how these programs are produced. The downside of course was that it felt very, very cold."

Gary Jones added: "It was interesting to get a feel for what it would have been like to live in the conditions at the time of the Neanderthal – they must have been very tough!"



The film crew record Dr Havenith preparing the volunteers for the ice bath.

Reception at Buckingham Palace

A researcher from the University's Ergonomics and Safety Research Institute (ESRI) recently attended a special reception at Buckingham Palace.

The reception in November last year was held to mark the contribution made by the British Design industry to the life of the Nation and to recognise excellence in the teaching and practice of design.

Colette Nicolle of ESRI was nominated to be on the invitation list for the reception by the Royal Society for the encouragement of Arts,

Manufactures & Commerce (RSA). Colette has worked with them on a number of activities, including the UK branch of EdeAN (European Secretariat for the Design for All e-Accessibility Network www.e-accessibility.org), and as a member of the Steering Group for the RSA Inclusive Design Resource.

This is a unique website launched in June 2004 for

design students and their tutors, professional designers, design managers and policy makers (www.inclusivedesign.org.uk/).

Colette would like to promote this resource across Loughborough University, not just to the ergonomics and design students, but also to other disciplines, and would be happy to pass on any comments or suggestions

to the RSA. Speaking about the reception Colette said: "It was a very enjoyable event and I felt very honoured to be there, to be able to shake the Queen's hand and briefly tell her about our work at Loughborough University.

Whilst at the reception the guests were also given the opportunity to look around part of Buckingham Palace – which was fantastic."

Aeronautical & Automotive Engineering

Support to Low Emissions Combustor Research - test cell 2 (AWARD INCREASE)
Dr J Carrotte and Dr P Denman
£57,431 Rolls-Royce plc.

Duct Design and Experiments for an Intercooled Aeroengine
Dr J F Carrotte
£9,815 Rolls-Royce plc.

Isothermal Test Facility Design for the Trent 1000 Combustion System
Dr P A Denman
£32,751 Rolls-Royce plc.

CASE Award
Dr R Chen
£85,757 EPSRC(CTA)

Systems Reliability Modelling for Phased Missions with Maintenance Free Operating Periods
Prof J Andrews
£70,757 EPSRC(CTA)

Business School

Toyota Training Needs Assessment (Tna) Additional Research for CCTV Equipment Purchase, Install, Decommission and Research Costs at Toyota
Mr G M Reed and Prof J Saker
£8,947 Toyota Motor Marketing Europe, Brussels

Centre for Hazard & Risk Management

Further Development of H & S Performance Management Index for use by Business, Investors, Employees, Regulator, Other Stakeholders
Mrs D Walker
£66,400 Health & Safety Executive (AWARD INCREASE)

Chemical Engineering

Industrial Phd Programme - Application for force field enhanced filtration to the recovery of biological products
Prof R Wakeman
£8,820 Ministry of Science, Technology and Innovation

Novel Separation Technologies for Multicomponent Liquid Systems (Support for Phd Student N Becht)
Dr D J Malik
£15,000 Diageo Great Britain Ltd.

Novel Separation Technologies for Multicomponent Liquid Systems
Dr D J Malik
£56,892 EPSRC(CTA)

Bicompatible carbon absorbents for blood purification
Dr D J Malik
£124,332 EPSRC

Chemistry

Novel Bioactive Tetramic Acids via Cycloaddition
Prof R Jones
£28,500 Novartis Pharmaceuticals UK Ltd.

The Royal Society Industrial Fellowship
Prof P C B Page
£120,000 ROYAL SOCIETY

A New Organocatalytic System for Asymmetric Epoxidation
Prof P C B Page
£48,257 EPSRC(CTA)

CASE AWARD
Dr S M Allin
£63,257 EPSRC(CTA)

Civil & Building Engineering

Planning and Implementation of Effective Collaboration in Construction
Prof N M Bouchlaghem, Prof C J Anumba and Dr P M Carrillo
£158,335 EPSRC(IMRC)

Examining the future potential of Demand Responsive Transport Systems
Dr M R Enoch
£70,092 EPSRC(CTA)

Climate Impact Forecasting for Slopes (CLIFFS) Network
Dr N Dixon and Dr J H Chandler
£65,054 EPSRC

Creation of an East Midlands Regional Innovation Director
Dr A Dainty and Prof A Thorpe
£60,000 Constructing Excellence Ltd.

Computer Sciences

Human Factors - E-Science Lightweight Computational Steering
Prof R Kalawski
£22,350 EPSRC

CRSP

Evaluation of New Deal for Disabled People - National Extension (Survey of Registrations, Cohort Three)
Dr B R Stafford
£384,066 Department for Work and Pensions

Planning and Deploying Resources in Later Life - Aspirations, Attitudes and Behaviour - A Quantitative Study
K Kellard, L Sutton and K Hill
£125,490 JOSEPH ROWNTREE FOUNDATION

The Public Sector Response to the Provisions of the Disability Discrimination Act
Dr B Stafford, Dr S Roberts, Antonia Ivaldi and Viet-hai Phung
£130,175 DWP

Electronic & Electrical Engineering

Research Review of Smart Antenna Technology
Prof J Vardaxoglou, Mr McEvoy, Dr A Feresidis & Dr G Goussetis
£80,340 Ofcom via Culham Electromagnetics and Lightning Ltd

Research on Tesla Transformers
Prof I R Smith
£20,828 DSTL for MOD

CASE Award for New Academics
Dr A C Zolotas
£70,092 EPSRC(CTA)

Human Sciences

Sleep Related Crashes
Dr L Reyner and Ms D Flatley
£24,930 Dept for Transport

IPTME

CASE Award for New Academics
Dr N L Thomas
£74,892 EPSRC(CTA)

SUPERGEN

Dr R Thomson
£40,000 RWE N Power
£30,000 Rolls-Royce plc.
£15,000 E.ON UK plc.
£20,000 Demag Delaval
£30,000 Alstom

Development of Reduced Activation Ferritic Steels for Fusion Applications
Prof R G Faulkner
£277,217 EPSRC

LUSAD

40,000 Years of Modern Art, Back in Context.
Prof C Rhodes
£41,852 AHRB

Mathematical Sciences

Mathematical Modelling of Surface Spreading Bacteria
Dr J Ward
£117,554 EPSRC

Mechanical & Manufacturing Engineering

Aluminium Assembly Build Project (Support for Research student Mr Mark Elkington)
Dr P G Leaney
£24,000 Bentley Motors Ltd.

CASE Award
Prof R M Parkin
£57,257 EPSRC(CTA)

CASE Award
Dr J R Tyrer
£63,257 EPSRC(CTA)

NHV Proposal - Strategic Design using Low-Noise Technologies and Applications
Dr A D Nurse
£120,000 JCB Research

PLM Research - Duplicate Wizard Function
Dr R I M Young
£12,000 Rolls-Royce plc.

Sport & Exercise Sciences
Gatorade Rehydration Study.
Dr S Shirreffs
£22,171 Gatorade Sports Science Institute, Costa Rica.

Award Transfer from Staffs University - Applying and Publishing Interdisciplinary Economic Research
Dr P Downward
£9,857 ESRC

Donation for a study on blood brain barrier physiology
Prof R Maughan & Dr S Shirreffs
£15,993 Gatorade Sports Science Institute, USA

Reach for the Sky Project
Dr D Armour and Dr M Nevill
£21,221 Youth Sports Trust

NIKE Zone Parc/NIKE Girls 3
Dr T Kay
£14,238 Youth Sports Trust

Step Into Sport
Dr T Kay and Dr S Bradbury
£90,000 Youth Sports Trust

Social Sciences

Iconography & Semantics of Technological Deterrence within Mobile Telephones: A Crime Feasibility Study
Prof G Farrell, Dr J R McCardle DT and Mr I J Storer, D&T
£55,079 EPSRC

Identity Conflicts of Persons with a Learning Disability, and their Carers
Dr C Antaki
£112,379 ESRC

Systems Engineering

CASE AWARD
Mrs C Siemieniuch
£70,757 EPSRC(CTA)

WEDC

E-Conference on Town Water Supply and Sanitation
Mr K Sansom, Dr J Fisher and Mr F Odhiambo
£8,663 The World Bank, Washington DC, USA

Working with business

A joint project between the University and Scientific Vacuum Systems (SVS) Ltd has received a national award in recognition of its success.

A team from the Department of Physics and Institute for Surface Science and Technology (ISST) worked with the company as part of the Department of Trade and Industry's (DTI) Knowledge Transfer Partnerships (KTP) programme.

KTP is a UK-wide programme that helps businesses to improve their competitiveness and productivity through the better use of knowledge found within Higher Education Institutions, Research Organisations and Further Education Colleges.

The Loughborough project was one of eight to be given a KTP award at a prestigious ceremony held in London. It was presented to the University's Dr Michael Cropper and David Hall, and Terry Shimell and Chris Aitken of SVS Ltd. The late Professor Ron



Pictured receiving their award is Dave Hall (first left), Dr Mike Cropper (second left), Terry Shimell (fifth left) and Chris Aitken (right).

Howson, who was retired from the University, also played a key role in the early stages of the project.

The team's award-winning work centred on the development of a process for making hard diamond-like carbon coatings for use on a wide variety of products in the technological, tribological and biomedical fields.

The process was developed at SVS by the KTP associate Chris Aitken, a graduate employed by the University to work on the project, and benefited from Loughborough's expertise in surface and thin film physics. The process is being marketed by SVS Ltd as Blue Diamond.

Speaking about the award Dr Cropper said: "We are very pleased to receive this award, which recognises the success of the project and the commercial benefit to SVS Ltd in terms of new export orders generated.

"It is a good example of the importance of physics and materials science to new engineering developments."

For further information about KTP projects with Loughborough University please contact the Knowledge Transfer Office by calling 01509 223110 or emailing kt@lboro.ac.uk

Loughborough graduate returns to campus

A former Aeronautical Engineering and Design student made a return visit to the Loughborough campus in November – more than 40 years after graduating.

John Magee completed his degree at the University in 1963, and since then has spent most of his life in the USA working for Bell Helicopters. He currently lives in Texas. The visit to Loughborough gave John an opportunity to see how the campus has developed, and in particular to see how the Department of Aeronautical and Automotive Engineering has grown.

When John was a student the department had just been housed in a 'new building'. This was the old Transport Technology building, which is now the Innovation Centre. Part of his degree was also carried out at the airfield site on Derby Road, working on real aeroplanes including the Spitfire.

During his visit John was given a tour of the department's latest home in the Stewart Miller Building, which it moved to two years ago. Whilst at the University John had also agreed

to give a lecture to some of the current aeronautical students.

More than 70 people attended the talk, which focused on his career in aircraft tilt rotor research and development in the USA. He described many interesting projects in which he had been involved, leading up to the successful design and development of the Bell/Augusta BA 609, which made its maiden flight on 7 March, 2003.

The BA 609 is the world's first commercial tilt-rotor, a six to nine seater passenger aircraft that combines the speed and range of a conventional aeroplane with the vertical takeoff and landing capability of a helicopter.

This ensures high fuel efficiency for the cruise element of flight, but provides enhanced operational flexibility because of the small landing area needed.

The lecture provided a fascinating insight into the world of tilt rotors. It was very informative and enjoyable and prompted many student questions. John was accompanied on the visit by his wife Bonnie.



John Magee is pictured in the Eurofighter aircraft, located in the foyer of the Department of Aeronautical and Automotive Engineering building.

Role of honour

Academic accelerates into Top 100

Loughborough professor Jim Saker has been named in the 2004 Automotive Management Power 100 list of the top one hundred most influential people in the motor industry.

His entry into the listing, for the first time, at number 45 is in recognition of his contribution to teaching the industry's leading retail bosses. Professor Saker, from the Business School, heads up the University's Centre for Automotive Management and was involved in the development of the £10 million Henry Ford College, based on the campus.

Over the past few years Professor Saker has served on the Government's Automotive Industry Growth Team and was academic advisor to the Retail Forum, which drew up the new management standards for the retail automotive sector. He chairs the awarding body board of the Institute of the Motor Industry, and has been invited to sit on the Automotive Management Senior Advisory Board, alongside industry leaders such as Sir Peter Vardy, chairman of motor retail group Reg Vardy plc. He is also a widely sought-after industry speaker both in the UK and in Europe.

Outside of the sector, Professor Saker is Chair of the Leicester Riders Basketball



Club and of the Loughborough Students Sports Foundation (LSSF), which administers the University's sports scholarship scheme.

Of his appearance in the Top 100 Professor Saker said: "I'm surprised that an academic should be considered in this way, but if anything it is a reflection of the work that the terrific team at Loughborough

has done to establish ourselves as the centre for excellence for the automotive industry."

Award for geography researcher

Dr Joanna Bullard of the Department of Geography has been awarded a Philip Leverhulme Prize for 2004 in the subject category of Earth, Oceanic and Atmospheric Science.

Joanna's interests lie in the field of aeolian research and focus on three main aspects of aeolian processes in drylands: the controls of the processes operating on partially-vegetated linear sand dunes and their response to climate variability; geomorphological relationships between aeolian and fluvial systems; and sedimentological controls on dust production in arid areas.

Her research has been conducted in southern Africa, Australia and the USA and applied to locations as far away as Mars. Earlier last year she was presented with the Gordon Warwick Award by the British Geomorphological Research Group for excellence in geomorphology as demonstrated through a selection of publications.

The Philip Leverhulme Prize is awarded by the Leverhulme Trust and comprises £50,000 to be used to promote the winner's research activities. Joanna will use the award to conduct field research on the coversands of the Kimberley Plateau in Australia, as well as to attend conferences in China and Canada.

New role for CRSP Director

Sue Middleton, Director of the University's Centre for Research in Social Policy (CRSP), has been invited to act as an adviser to the Joseph Rowntree Foundation's Poverty and Disadvantage Committee.

She will work with the Foundation throughout 2005 to help develop the future direction of its work on poverty and social exclusion.

As well as writing on issues relating to childhood poverty and social exclusion, Sue will also maintain links with CRSP and will return to her role as Director of the Centre in January 2006. CRSP would like to take this opportunity to wish Sue well over the next year.

Student awards

Stewart Ronnie, a former Loughborough Chemical Engineering Masters student, has been awarded the Salters' Institute of Industrial Chemistry Graduate Prize 2004.

Stewart was presented with his award by Anthony Goodeve, Master of the Salters' Company at a special ceremony in London last year. The prize is awarded annually to the graduates most likely to succeed in industry and the winners receive £1,000. Professor Richard Wakeman,

Head of the Department of Chemical Engineering said: "This award is a great credit to Stewart and everyone in the Department wishes him well in his career. It is the tenth year in the last 11 that one of our graduates has won the Salters' prize, which also highlights the dedication and commitment of staff within the department to ensuring our students are some of the best in the country."

Stewart now works for ConocoPhillips at their Humber refinery, located on the Humber Estuary at South Killingholme.

Helen Walkden, a systems engineering student at Loughborough has also won a prestigious prize.

The 22-year-old received the Ford WISE prize at the Young Women Engineer of the Year Award ceremony, also held in London last year. The prizes recognise the outstanding achievements and commitment of women engineering students in UK universities who are in their penultimate year of study. The sponsors, Ford Motor Company Ltd and WISE (Women Into Science and

Engineering), wish to attract more young women to study and commit to engineering as a career path.

Helen, who sees her future as a chartered engineer working within the aerospace industry, was awarded the CEng Ford Prize and given a cheque for £750. She said: "I am delighted to have won this award – not only is it a great personal achievement but hopefully it will inspire other young women to pursue a career in science and engineering."

Obituaries

Dr David Lewis

It is with great sadness that we report the death of Dr David Lewis, former Cataloguing Manager in the University Library, who passed away on 6 December 2004 following a short illness.

Dr Lewis was 62 and had worked at Pilkington Library for 38 years, in a career devoted entirely to the activities of stock development and management.

David's knowledge and expertise in the fields of cataloguing and classification, of computerised bibliographical databases and processing and of rare book librarianship were responsible for the consistently high standards achieved in the bibliographical organisation of the materials in the library.

His work demanded a high level of intellect, a wide knowledge of academic disciplines and an analytical approach to the arrangement of library materials: in all these respects David was conspicuously well qualified.

Loughborough University was very fortunate that after graduating from the University of Manchester and undertaking professional training at the Loughborough School of Librarianship, David chose to devote his working life to the campus library. In addition to his achievements in his primary role, David's intellect and judgement were of considerable benefit to the library as a whole.

He always brought an admirably rigorous and thorough approach to new projects and developments, producing excellent reports and making shrewd and well thought out contributions to discussion and debate.

Perhaps David's greatest legacy to the University was the establishment and development of the library's Special Collection, which

has recently been named the David Lewis Collection in his memory and is located on Level 3 of the Pilkington Library. David's innate reserve – some might say diffidence – cloaked a kindly, dependable

and loyal colleague and friend, with a wonderfully dry wit and keen sense of humour. Still waters running deep was an apt description of his personality.

Outside his work David was a proficient mountaineer and an accomplished landscape photographer. He leaves a daughter, Sharon, a son, Malcolm, and three grandchildren - we extend our deepest sympathy to them all.

David's memory will always be cherished by those lucky enough to have experienced the warmth behind his naturally self-effacing exterior, and he is very much missed by all his friends and colleagues.



Dr Bob Feilden, CBE, FRS, FREng

It is with great sadness that we report the death of Dr Bob Feilden who died on 1 May 2004.

Bob was the longest surviving honorary graduate of Loughborough University, having been awarded the degree of Doctor of Technology in 1970.

His early childhood was spent in British Columbia but on the family returning to England he continued his education at Bedford School and King's College, Cambridge where he attained a First in Mechanical Sciences in two years instead of the usual three.

His graduate career started in 1939 with Unilever but, as part of the war effort, he was directed to Power Jets, where Sir Frank Whittle described him as 'a brilliant young engineer with a remarkable combination of knowledge and initiative'.

Subsequent to the breaking up of the Power Jets team he joined Ruston and Hornsby of Lincoln in 1946 where he was responsible for the TA gas turbine which went into service in 1952.

He was promoted to Engineering Director in 1954 and left Rustons in 1959 to become Managing Director of Hawker Siddeley Brush Turbines and later Group Technical Director of Davy-Ashmore from 1961 until 1968, whereupon he became Deputy Director General of the British Standards Institution and subsequently Director General from 1970 until his retirement in 1982.

Dr Feilden was awarded a CBE in 1966, and was elected as a Fellow of the Royal Society in 1959, serving for two periods on its Council and as Vice-President from 1967 to 1969.

In 1976 he was a founder Fellow of the Fellowship of Engineering (later the Royal Academy of Engineering).

He later received honorary doctorates from two other universities and was granted the Freedom of the City of Lincoln in 2003.

Bob Feilden will be best remembered at Loughborough as the Chairman of the Government commissioned 1963 Feilden Report on Engineering Design, which sold 10,000 copies and was the origin of the expression 'in design everything matters'.

A principal recommendation was that postgraduate teaching centres of Engineering Design should be established in selected UK universities. Consequently Loughborough inaugurated the first Engineering Design Centre on its becoming a University in 1966.

After publication of his report, Dr Feilden was further active as chairman of the Design Advisory Service which, with sponsorship from BSI and the Engineering Council, benefited 10,000 manufacturing companies with 43 engineering design guides on subjects as diverse as fastening systems, seals, helical springs and permanent magnets.

Bob was a great supporter of the newly established Loughborough University of Technology and was always proud of being one of its early honorary graduates.

He will be long remembered by all older Loughborough engineering staff as a great champion of engineering design.





Loughborough's Paralympic gold medallist scoops sports award

Loughborough student Daniel Greaves was named as the BBC East Midlands Disabled Sportsman of the Year 2004, at a special ceremony held in Nottingham.

The prestigious award caps a great year for Daniel. In September, he smashed the world record in Athens, with a throw of 55.12m, to take Gold in the F44/46 Paralympic discus competition.

Previously he has won a Gold medal at the Disabled European Championships in 2003, where his throw in the F44 class was a new European Record. He also won Silver in the Paralympics in Sydney, aged just 17, a Gold medal for GB in the European Championships and a Silver for England in U20 AAAs.

Daniel was also the first Paralympic athlete to represent Britain in an able-bodied event – he was selected for GB's junior team in 2001.

"We are incredibly pleased that Daniel's achievements have been recognised with this award. He's a tremendous athlete and a credit to the University," said Dr Guy Jackson, Director of Marketing and Development at the University's Sports Development Centre.

Daniel, who is 20, comes from Anstey in Leicestershire and is in his third year of a BSc in Physical Education, Sports Science and Recreation Management. He is a Loughborough Sports Scholar and recipient of a Peter Harrison Sports Scholarship.

The Peter Harrison Foundation is also supporting The Peter Harrison Centre for Disability Sport at the University. The Centre, the only one of its kind in the UK, will become an international focus for evidence based advice and developments in the field of disability sport.

Swimmer Jane Stidever, who trains at Loughborough University, was also recognised at the BBC East Midlands Sports Personality of the Year awards, receiving the Disabled Sportswoman of the Year title.



Daniel Greaves was named as the BBC Midlands Disabled Sportsman of the Year 2004.

February 16 2005 will see the first in an annual fixture to broaden awareness of University rugby and show the sporting public just how high the standards of University sport are.

The match between Loughborough and Bath Universities, which will take place at Bath Rugby's ground, the Rec, is open to the public and families are invited to attend free as the match falls in half term. Kick off is at 7.30pm.

The sporting legacy of both universities is second to none and many rugby players have gone on to play for, coach and even manage the national team.

Bath houses one of the RFU Academies and Loughborough has had a formal coaching arrangement for two years now with Northampton Saints.

"We're looking forward to the match a great deal", says Alan Buzza, Loughborough's Director of Rugby. "The standard of rugby for both sides is very high and each takes great pride in its sporting history. To play at a premiership ground is also a great experience for the students and the crowd should be in for some great rugby!"

Ged Roddy, Director of Sport at the University of Bath added: "I am sure that the match will be one of intense rivalry but also great skill and I hope that many local people will turn out with their families to support us.

"Both Universities have strong sporting traditions and have been the cradle of development for a number of current and former leading athletes across a range of sports. We hope, should the rugby match prove successful, to widen out the concept to a number of other sports in the coming year."

Silver lining for swimmers

University swimmers Lisa Chapman, Melanie Marshall and Sarah Price raced to silver medals during the final days of the European Short Course Championships held in Vienna last year.

Chapman utilised her speed and versatility to swim to a new English Record and silver in the 100m Individual Medley – the first major senior medal of her career.

An Olympic finalist in the women's 4 x 100m freestyle relay, she's had to cope with the personal tragedy of losing her father in June of this year but with remarkable resolve has now made an impact on the world stage.

Melanie Marshall rekindled her passion for the sport when she swam to silver in the 200m Freestyle behind Josefin Lillhage (Sweden). And backstroke specialist Sarah Price showed her class when, despite taking time off after Athens, she swam a well-paced race to take silver in the 200m Backstroke.

**Tuesday
25 January** **Royal Aeronautical Society** **7.30pm**
Flight Testing - Chipmunk to Concorde. U.O.20, Brockington Building.
Further information from Goff Tearle T: 01509 227260.

**Wednesday
26 January** **Chilingirian Quartet** **7.30pm**
Cope Auditorium, Adults: £8, Students: £5, Concessions: £7.
Further information from Viv Green T: 01509 222899.

**Engineering Subject Centre Workshop -
Teaching Sustainable Design** **10.30am – 2.30pm**
Sir David Davies Building. Further information from
Liz Willis T: 01509 227176.

**31 January –
4 February –** **Laser Safety Management Course** **9.00am – 5.00pm**
Burleigh Court International Conference Centre. Further
information from Dr John O'Hagan T: 01235 822673.

**Wednesday
9 February** **Ten Years After the Uruguay Round:
evolution in EU trade policy** **3.00pm – 4.30pm**
Room A.2.04 (Schofield). Further information from
Professor Dave Allen T: 01509 222983.

The Broadside Band **7.30pm**
Cope Auditorium. Adults: £6, Students: £5, Concessions: £6.
Further information from Viv Green T: 01509 222899.

**Tuesday
15 February** **Royal Aeronautical Society** **7.30pm**
Apache Helicopter - Mike Kennett, Westland Helicopters Ltd,
outlines the development of the UK Apache helicopter.
UO20, Brockington Building. Further information from
Goff Tearle T: 01509 227260.

**Wednesday
23 February** **Art and Politics** **3.00pm – 4.30pm**
Prof Alex Danchev (University of Nottingham) will deliver a brief
presentation. Room A.2.04 (Schofield). Further information from
Professor Dave Allen T: 01509 222983.

National Youth Jazz Orchestra **7.30pm**
Cope Auditorium. Adults: £8, Students: £6, Concessions: £7.
Further information from Viv Green T: 01509 222899.

**Tuesday
1 March** **Royal Aeronautical Society** **7.30pm**
Air-to-Air Refuelling – Fl Lt Jez Lewry, of 101 Squadron will
discuss flight refuelling operations. U.O.20, Brockington Building.
Further information from Goff Tearle T: 01509 227260.

Poetry Evening **7.30pm**
Poets published in Shoestring Press Anthology 'Take Five', edited
by John Lucas. A performance of poetry currently on a national tour.
Further information from Viv Green, T: 01509 222899.

**Wednesday
2 March** **Europeanization and British Politics** **3.00pm – 4.30pm**
Ian Bache (University of Sheffield) will deliver a brief presentation.
Room A.2.04 (Schofield). Further information from
Professor Dave Allen T: 01509 222983.

