

Loughborough named in four 'Grand Challenges' worth £14.5million

Loughborough is the only university to be named by the Engineering and Physical Sciences Research Council (EPSRC), in all four of its 'Grand Challenges' for its Innovative Manufacturing programme.

Each 'Challenge' consists of a consortium of universities and industrial collaborators which will tackle major issues in manufacturing, building on the work of the EPSRC's 17 Innovative Manufacturing Research Centres across the UK's top universities. In total £14.5 million is being invested by the EPSRC into the four projects.

The first of these challenges, the Regenerative Medicine programme, seeks to prepare the road for regenerative medicines using human cells and tissues. Realisation of the potential of these therapies requires consistent manufacturing and appropriate business and cost structures. The primary objective of this project is to demonstrate how

established bioscience can be transformed into profitable commercial practice, delivering both shareholder and patient value. The programme is being led by Professor David Williams from the Wolfson School of Mechanical and Manufacturing Engineering. Mintegration is a multi-disciplinary programme that sets out to develop the technologies and techniques required for the production of highly integrated, cost effective and reliable multi-functional 3D miniaturised devices. Effort will be applied not only to manufacturing processes, but also to the end-to-end design, assembly, packaging and testing of complete systems.

The Immortal Information and Knowledge programme will create a new kind of network-

enabled information and knowledge environment. Dispersed, multidisciplinary operational teams will use sustainable knowledge management systems to execute effective, timely decisions within an evolving engineering lifecycle.

The Innovation and Productivity programme seeks to develop existing knowledge about innovation, engineering and productivity to better understand how these connect together to improve productivity and how ideas flow from the science base to the market place. The objective is to develop robust mechanisms to assist in faster and more effective appropriation of research aimed at improving industrial performance.

Teaching prizes awarded

The first recipients of the University's new Teaching Prizes were announced last month.

Introduced in December as part of the annual Reward Review process, the Teaching Prizes have been established to recognise and reward excellence in teaching and learning, and are worth £1,000 each. The inaugural recipients are: Dr David Coates, Business School; Dr Michael Cropper, Physics; Dr Ruth Kinna and Dr Mark Webber, Politics, International Relations and European Studies (PIRES); Dr Gary Page, Aeronautical and Automotive Engineering; Gordon Ramsay, English and Drama; Dr Roger Stone, Computer Science; Ruth Stubbings, Library; Dr Peter Willmot,



Pictured from the left are prize winners Ruth Stubbings, Dr Roger Stone, Mike Cropper, David Coates, Dr Mark Webber, Dr Peter Willmot and Dr Ruth Kinna.

Mechanical and Manufacturing Engineering. Professor Morag Bell, Pro Vice Chancellor for Teaching, said: "Faculties and support sections have taken the opportunity to reward initiatives

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that benefit students and staff. This is in line with both the University's learning and teaching and human resources strategies."

The prizes are open to academics, academic-related staff or anyone who supports teaching

and learning at the University. Proposals can be made by heads of departments and sections, third parties or by self-submission. Prize recipients are expected to share their experience across the University, through workshops or written reports, for example.

Child Protection Policy

The University has recognised that increasing numbers of children are coming onto campus for a variety of reasons, for example as part of widening participation activities, to participate in research and to use facilities.

As a result, a child protection policy has been produced. The policy is available at: <http://www.lboro.ac.uk/admin/personnel/childprotection/ChildProtectionPolicy.htm> Printed copies are available from Personnel Services. All staff and students who come into contact with children through their work should take time to study the policy and procedures to ensure that they are familiar with what action should be taken if a child protection issue arises. An incident report form, which is designed to assist members of the University in recording child protection incidents, is available at: <http://www.lboro.ac.uk/admin/personnel/alpha.html#C> This should be completed for any such incidents and sent to Sandra Jasper or Anne Lamb in Personnel Services. External organisations using University facilities for activities with children must have their own child protection policy and must have carried out the appropriate checks on their staff or volunteers. Members of the University must ensure that in these circumstances the external organisation signs an agreed declaration prior to using any facilities.

This document can be incorporated into other agreements that external organisations need to complete. The declaration statement is available at: <http://www.lboro.ac.uk/admin/personnel/alpha.html#C> Training is being organised on child protection issues for members of the University who come into contact with children as part of their work. Details will be published on Professional Development's website in due course.

New Director for RSI appointed

A Director for Loughborough University's new Research School of Informatics has been appointed.

Sameer Singh, Professor of Autonomous Systems, will officially join the school on 1 June 2005 and take up the role of Director on 1 August.

Born in New Delhi, India, Professor Singh graduated from the Birla Institute of Technology, India, with a Bachelor of Engineering degree with distinction in Computer Engineering. He received his Master of Science degree in Information Technology for Manufacturing from the University of Warwick, and a PhD in speech and language analysis of stroke patients from the University of the West

of England. He worked as Lecturer and Senior Lecturer at the University of Plymouth, and thereafter the University of Exeter. Professor Singh's main research interests are in image processing, medical imaging, neural networks and pattern recognition.

In these areas he has published more than 150 research publications and is actively involved in various editorial activities. He is the founding and the current Editor-in-Chief of the Pattern Analysis and Applications journal by Springer, Editor-in-Chief of the Springer book series on Advances in Pattern Recognition, and Chairman of the British Computer Society Specialist group on Pattern Analysis and Robotics.

Professor Singh is a Fellow of the Royal Statistical Society, and a Member of BMVA-IAPR, IEE and IEEE.

The School will bring together research from the departments of Computer Science and Information Science, to address multidisciplinary issues such as knowledge management, information robotics and the design of information systems.

Dean of the Faculty of Science, Professor Ken Parsons, said: "We are delighted that Professor Singh is taking on the role of Director at the new Research School of Informatics. The skills and knowledge he will bring to the school will be invaluable to this significant position and provide leadership to this initiative."

Don't be fooled by essay writing

In recent years, there has been a proliferation of services advertised on the web that offer to write assignments for students for a fee.

Some of these services euphemistically claim they simply offer model answers and do not purport to get the student good marks in a specific assignment, but others are much more up front and claim to have helped students get through various stages of their degree programmes. The fees charged typically range from £150 to £250 per assignment, depending on length. It is claimed that subject experts draft the assignments on behalf of the services.

Professor Charles Oppenheim in the Department of Information Science carried out a case study experiment on three of these services. A selected group of students were asked to purchase assignments from the organisations Professor Oppenheim had chosen. The participants used their own email addresses and paid all the relevant fees using their own bank accounts or credit cards, so the services would have every reason to believe that they were receiving a genuine request from a student.

The assignment topic was one that Professor Oppenheim gives to some of his final year undergraduate and masters' students. The services were given two weeks to reply, mimicking a real life situation when, two weeks before the deadline, a student suddenly realises that they are running out of time.

The good news was that all three services delivered the essays on time, though in one case the organisation offered a follow-up service to make corrections to the first draft, and the updated version arrived too late for the deadline.

Each essay was completely different and a check through the JISC plagiarism detection software showed that, other than a single sentence in one of the essays, none of the assignments had plagiarised from other documents on the web.

The bad news was that the quality of the essays ranged from mediocre to awful. Had this been the real thing, the marks would have ranged from 42 percent, a bare pass, to 58 percent, a good 2.ii. The worst of the essays appeared to be written by someone whose native language was not English and in addition, that essay was riddled with factual errors, was badly dated in places and included irrelevant digressions.

The others failed to devote enough space to answering the question as set and included some factual errors and out of date material. They also made assertions without supporting evidence. All three essays offered incomplete references, mistakes in the titles of cited works and too few citations to scholarly journal articles, even though the instructions clearly stated this was required.

Professor Oppenheim said: "Academics generally suspect plagiarism on the basis of 'this is suspiciously good work from this student'. There was no danger at all of any of these essays falling into this trap. Reading these assignments, I would have just thought the students had let themselves down badly with a lazy and poorly argued piece of work. I would not have challenged them with an accusation of plagiarism.

"Based on this admittedly limited experiment, my advice to all students under pressure to do assignments to a tight deadline and tempted by these services is simple - don't touch these services with a bargepole. And who knows, every time a student of yours submits a really disappointing piece of work and then comes to see you, expressing concern at the low mark you have given them, maybe their real motivation for that challenge is disappointment at the money they had spent!"

International Day 2005

International students from across the University were able to showcase their home countries at the annual celebratory event.

It was the seventh International Day to be organised by the International Students Association, and the event proved to be as popular as ever.

Photographs courtesy of Peter Beaman



Norline Martin (left) and Charlotte Gumbs bring a touch of the Caribbean to Loughborough.

More than 5,000 people visited the Students' Union, where the celebration was held, to see around 50 stalls, each representing a different country.

Visitors were offered food and drink from around the world, as well as the chance to learn about the different countries.



Thousands gather for International Day 2005.

Chemistry student awarded AstraZeneca bursary

A first-year chemistry student at Loughborough University has been selected to receive a bursary from pharmaceutical giant AstraZeneca.

Christopher Bartlett, who is studying for a BSc in chemistry, was presented with the award by Tom McNally and Eric Merifield, who are both chemists at AstraZeneca. As part of the bursary he will receive £1,000 each academic year, as well as the opportunity to work at AstraZeneca during his year in industry.

Dr Paul Lucas, a lecturer in the University's Department of Chemistry said: "Christopher is a very talented student and thoroughly deserves this bursary. We very much appreciate AstraZeneca's support, their commitment to the study of chemistry at higher education level and their selection of Loughborough as one of their recipients of this award."

Tom McNally added: "Our company needs top chemists for its future success and recognises that not enough young people are studying chemistry at university or pursuing careers in this field. With this unique awards scheme we aim to encourage more teenagers to study this topic and become the chemists of tomorrow."



AstraZeneca invests £200,000 each year in its chemistry bursary scheme, and around 150 students studying at 23 different universities across the UK currently benefit from it.

A further fifty students will enter the scheme in October 2005.

Still innovative but now collaborative

The Centre for Innovative Construction Engineering (CICE) has re-launched itself under the new name 'Centre for Innovative and Collaborative Engineering' (CICE).

The change in name results from a broadening of the centre's remit following the award of a Collaborative Training Account to the University.

Under the new dispensation, CICE is able to make EngD

studentships available to all areas of Engineering and Applied Science.

The annual intake of research engineers will also increase from 10 to 12 - 15, with some of these reserved for construction.

Academics and firms interested in setting up new EngD projects should contact the centre for information packs by calling 01509 228549 or visit the centre website: www.lboro.ac.uk/cice

Race for Life 2005

Staff from across the University are taking part in Cancer Research UK's Race for Life, which is being held on campus on June 19.

Race for Life is the UK's biggest women only fundraising event and all the money it collects will help fund the life-saving work of Cancer Research UK.

Staff from Information Science, the School of Sport & Exercise Sciences, the Teacher Education Unit, the Disabilities and Additional Needs Service, Pilkington Library, Media Services, Professional Development and imago are all taking part. Susan Taylor and Maria Ward from Aeronautical and Automotive Engineering are taking part in the Playtex Moon Walk in aid of breast cancer. The event is a 26-mile power walk around London, starting at Hyde Park at midnight on June 18. To sponsor them contact Susan Taylor on 01509 227207. news@lboro would like to wish all those taking part in both events good luck.

Trio of awards for Wolfson School

Three staff from the Wolfson School of Mechanical and Manufacturing Engineering have received awards.

Neil Hopkinson won first prize in the Selective Laser Sintering Users Group Global Excellence awards for his project 'Using SLS and rapid manufacture to improve design for the environment'. John Edwards and former PhD student Ian Coutts have been awarded the ImechE Donald Julius Groen Prize for their paper entitled 'Using domain machines to support manufacturing software system implementation'. And finally the technical Committee of the British Institute of NDT has awarded the Roy Sharpe Prize 2004 to Jon Tyrer in recognition of his work pioneering the commercial exploitation of TV based laser speckle interferometric techniques.

High demand for WEDC training

Loughborough's Water, Engineering and Development Centre (WEDC) has been running training programmes for the international relief organisation Médecins Sans Frontières (MSF) for approximately ten years.

MSF works in more than 80 countries worldwide and although primarily a healthcare organisation, it also employs many professionals tasked with providing safe water and sanitation in emergency and post-disaster situations.

The WEDC course is designed to provide expertise in water supply and sanitation for MSF field workers who have limited practical experience and who don't have a formal background in engineering. Topics covered include water source selection, treatment and distribution, environmental sanitation following disasters and emergency project planning and management.

This year, due to unprecedented demand from MSF staff, WEDC will be running an additional course to make a total of three two-week courses for 2005. The first of



Course participants learn about pump maintenance.

these courses took place over the Easter vacation in April. Participants represented more than seven different nationalities and most travelled directly from their relief operation overseas to the UK to attend the course. Countries from which they

travelled include Burma, Democratic Republic of Congo, Indonesia, Liberia, Mozambique, Sudan and Turkmenistan. Course participants are encouraged to share their own experiences from the field and the April course included some interesting discussions on practical issues such as desalinating wells affected by the tsunami in Indonesia, finding groundwater for internally displaced people in Darfur in Sudan, and disposing of wastewater in impermeable soils in Liberia.

The course co-ordinator, Peter Harvey, is confident that the partnership between MSF and WEDC will continue for many years

and that many more relief workers will benefit from their short time at Loughborough University, using what they learn to help people across the world affected by disasters.

New and innovative research at CRSP

The centre for Research in Social Policy (CRSP) is embarking on two new exciting projects. The first is entitled 'Planning and deploying resources in later life: aspirations, attitudes and behaviour – a qualitative study'.

Extended life expectancy means that resources in later life have to be planned and managed over ever-longer periods. Understanding how and why people plan and use their resources, both financial and other, their aspirations, attitudes and behaviour and how these interact in later life will provide important information about what people need in order to escape poverty, hardship and disadvantage and to achieve an acceptable quality of life throughout older age – a period which can span over 20 years.

This project's focus on resources in later life is central to government policy to tackle poverty and social exclusion among older people. Policy currently assumes that need increases in older life yet there

is little evidence to underpin the assumption that age is the issue rather than health or access to other resources. The study will assist policy makers and those representing older people in understanding both how they plan resources, in the widest sense, during later life, as well as how they actually utilise resources available to them over time.

A qualitative longitudinal approach is being adopted, to enable the investigation of the consequences of changes in circumstances in later life. A panel of around 100 respondents will be recruited, to allow for coverage of the key groups of interest (in terms of age, income and gender), allowing for attrition. A Consultative Group of older people will provide advice and

guidance throughout the project. The research is funded by the Joseph Rowntree Foundation and will complement and be informed by quantitative analysis also being undertaken by CRSP as part of the Resources in Later Life Programme. Work began in January 2005 and the first report will be published in January 2006.

The second project is entitled 'Jobcentre Plus Employment Policies for Ex-prisoners'. Ex-prisoners are particularly disadvantaged in the labour market, experiencing high levels of unemployment, low grade or no qualifications, poor health, especially in relation to substance misuse, personal barriers such as low self-esteem and confidence, and gaps in support and services.

This exploratory research aims to evaluate employment policies provided by Jobcentre Plus to ex-prisoners. The research will explore ex-prisoners' attitudes to work and whether they change over time; examine whether the influence of having a criminal record on securing employment changes over time; and will ask ex-prisoners to identify what works or does not work in terms of benefit and employment service provision.

This research, which is funded by the Department for Work and Pensions, runs from February 2005 until March 2007.

For further information on either project contact CRSP by calling 01509 223372 or emailing CRSP@lboro.ac.uk

Birth-cohort studies research day

In April the Centre for Human Development and Ageing, based in the Department of Human Sciences, hosted a birth-cohort studies research day.

Representatives from the University of the Witwatersrand, South Africa, and the UK universities of Bristol, Bradford, Cambridge, Leicester, the London School of Hygiene and Tropical Medicine, and the Medical Research Council's Human Nutrition Research unit at Cambridge attended the event.

The aetiologies of non-communicable diseases of lifestyle are best investigated through longitudinal studies in which a group of individuals, born within a prescribed time

period are monitored from birth until they exhibit risk factors for disease. During the period of the study all possible factors to which the child is exposed that might contribute towards disease, such as smoking, diet and physical activity, are assessed on the children and their families.

Outcome variables that indicate risk, for example elevated blood pressure, are also monitored and thus associations between exposure and outcome can be determined. In the research field of child health, birth-cohort studies are recognised as being able to make a unique contribution to our understanding of the causes of variations in both childhood and adult disease patterns. The research day concentrated on two current birth-cohort studies

accepted as perhaps the most significant ever undertaken. The 'Birth to Twenty' (Bt20) study was started in Soweto and Johannesburg with the births that occurred in a seven week period in 1990. The Avon Longitudinal Study of Parents and Children (ALSPAC) monitored all the births that occurred in 1991 in the Avon area of the UK.

The different conditions in which people live in Soweto and Bristol make comparisons between these cohorts fascinating. This is particularly true when the same association between exposure and outcome is observed in both of these very different environments.

Noël Cameron, Professor of Human Biology at Loughborough and leader of the

Centre for Human Development and Ageing, said: "The possibilities of comparing the results from Bt20 and ALSPAC is fundamentally important in understanding the causes of ill health in children and will make a unique contribution to our knowledge of child health in the future.

"In that context, the participation by groups from Bradford and Leicester is particularly important because of the higher prevalence of cardio-vascular disease and diabetes in the South Asian populations residing in both cities.

"It may be that birth-cohort studies centred in Bradford and Leicester could explain why disease risk is so much greater amongst these groups."

Showing school students that maths adds up

With exams just around the corner, hundreds of thousands of GCSE and A-level students across the country are using an imaginative initiative by Loughborough University to help improve their maths skills.

Two pocket-sized cards – which contain the formulae relevant to both the maths GCSE (intermediate/higher) syllabus and the pure maths A-level syllabus – have been developed by the University to help school pupils with their studies.

The handy cards, which fold out to a double-sided sheet, approximately A4 in size, are now being utilised in half of all the schools and colleges in England, Wales and Northern Ireland providing GCSE and A-level education. The University's Faculty of Engineering developed the A-level card initially in 2002 and the University extended the scheme to GCSE level last year, to try and help reignite pupils' interest in maths.

"The response from teachers and students has been phenomenal," says Professor Chris Backhouse, Dean of the Faculty of Engineering at Loughborough. "One student described the cards as 'the best resource ever' and many teachers see it as an excellent way of encouraging students to learn." As Professor Morag Bell, Pro Vice Chancellor for Teaching, explains, a good understanding of maths is essential. "You need it in everyday life, to get into college or university, and most jobs require it too. An appreciation of maths is therefore crucial for maximising your opportunities in later life."

In recent years there has been a significant decline in the number of pupils taking A-level maths, which is having a knock-on effect on higher education: fewer students with maths A-level means fewer undergraduates studying the subject at university. Maths also

underpins many other subjects such as engineering, science and economics; with falling numbers of students choosing maths at A-level, fewer will have the required abilities to study subjects with a maths element in higher education. These cards have been targeted to reverse this trend. Sample GCSE cards were originally sent last summer to the head of maths at every school and college in England, Wales and Northern Ireland. Since then a staggering 450,000 GCSE and 100,000 A-level cards have been ordered by 2,600 schools and colleges.

The cards, which are free of charge, are proving to be a huge hit with both teachers and students alike. Loughborough's Marketing Manager, Andrew Cooney, explains their popularity. "The cards are popular with students because of their 'cool' factor, while teachers see the enormous benefit of their students always having the maths formulae to hand," he says. "Our own market research among those using the cards has shown that 96% of students said that they found them very useful for their studies," Andrew adds.

Demand for the cards is set to grow even more, as Local Education Authorities across the country are starting to request them to encourage all of their schools to use the study aid. The formulae for both the maths cards were put together by the University's Mathematics Education Centre. The foldable card itself is a patented design, produced by the company Z-CARD®. The GCSE initiative was developed with support from the 1851 Commission.

Teachers can order the free cards online at www.mathscard.com

Aeronautical & Automotive Engineering

Aerodynamic Performance of the Trent 1000 Combustion System
Dr PA Denman
£163,687 Rolls-Royce plc.

Unconventional Nozzle Research - Phase 5 - Interim 3 - Rectangular Jet Plume Measurements
Prof JJ McQuirk
£34,500 BAE Systems, Warton

Business School

Literary Review of Key Human Factors involved in Workplace Transport Accidents
Dr AJT Cheyne and Dr R Hartley
£19,213 HSE

Applying the principles of the Toyota Production System to other areas of the Automotive Industry Supply Chain
Prof JM Saker, Mr GM Reed, Dr VM Story, Prof JW Cadogan and Dr AJT Cheyne
£159,622 Toyota Motor Marketing Europe.

Returning Chinese as entrepreneurs, and their role in technology transfer : a study of Zhongguancun Science Park.
Prof TW Buck and Dr X Liu
£18,760 The British Academy

Chemical Engineering

Greening of alkene epoxidations via use of polymer-supported Mo(VI) catalysts in a continuous reactive distillation process
Dr B Saha
£215,278 EPSRC

Rheology of Colloidal Suspensions with Nanoscale Interactions
Prof V Starov and Dr RG Holdich
£209,414 EPSRC

Chemistry

Asymmetric Oxidation using Immobilised Catalysts
Prof PCB Page
£136,272 EPSRC via Cardiff University

Chiral Epoxidation and Oxygen Transferred Processes Driven Electronically at Diamond Electrodes
Prof PCB Page and Dr F Marken
£173,457 EPSRC

Civil & Building Engineering

Integrating Design and Process Control for Freeform Construction
Prof AJT Thorpe and Dr RC Soar
£75,000 EPSRC(IMRC)

Network: SPORT - Surfaces Utilisation Research Forum
Dr P Fleming
£63,267 EPSRC

Computer Sciences

Improve the performance of Trackerballs
Dr I Phillips & Dr A Lawrence
£100,544 KTP and Cursor Controls Ltd.

CRSP

Over-arching Thematic Review of Jobcentre Plus Services for Ex-prisoners
Dr BR Stafford, Ms C Dearden and Ms Y Hartfree
£374,129 Department for Work and Pensions

Evaluation of Adult Learning Grants

Dr BR Stafford and Ms E Pound
£135,535 DfES

Economics

Is there convergence in and between European and Non-European Business Cycles?
Dr CR Richter
£22,488 The Leverhulme Trust

Electronic & Electrical Engineering

Understanding Internet Attacks
Prof DJ Parish
£40,000 CESG

Understanding Internet Attacks
Prof DJ Parish
£56,845 EPSRC

SUPERGEN Highly Distributed Power Systems Consortium
Prof DG Infield
£2,566,609 EPSRC

High Voltage Battery Charging of Capacitor Banks for Pulsed Discharged Applications
Prof IR Smith
£22,113 DSTL

A study of RF SAR rates in the human head due to Cellular Enabled Personal Data Assistants, Spectacles and Jewellery.
Dr RM Edwards and Prof Y Vardaxoglou
£195,250 EPSRC

ESRI

EPAULETS - Enhanced Perceptual Anti-Terrorism Universal Luggage Examination Scheme
Prof A Gale
£193,683 EPSRC

Ergonomic Implications of Digital Mamography/Review of Mamography Units
Prof A Gale
£49,053 NHS - Cancer Screening Programme

Investigation of sub-optimal smear taking
Prof A Gale
£15,340 NHS - Cancer Screening Programme

ART : Attention responsive technology

Prof A Gale
£183,170 ESRC

PERFORMS

Prof A Gale
£32,131 NHS - Cancer Screening Programme

Geography

Framework for Management of Forest Impacts on Upland Lakes
Prof NJ Anderson
£79,951 European Union Interreg IIIA

Human Sciences

Preliminary Investigation of Sleep Related Road Crashes
Dr L Reyner and Ms D Flatley
£30,000 The Highways Agency

Ergonomics Knowledge & Skills
Dr SM Hignett
£44,696 EPSRC(CTA)

RAIS Award
Dr SM Hignett
£30,064 EPSRC(CTA)

Information Science

OA and Citations
Prof C Oppenheim and Dr F Rowland
£27,206 JISC

JISC/SURF Partnership on copyright - Knowledge Bank and Advocacy
Prof C Oppenheim & SG Probets
£58,385 JISC

IPTME

Alloy Development for Critical Components on Future Coal Fired Power Plant
Prof RF Faulkner
£91,960 DTI

Case Award - Oxide Scale Formation in Chromium Containing Steels
Dr R Higginson
£48,257 EPSRC

RAIS Award
Prof J Binner
£37,828 EPSRC(CTA)

Re-engineer all standard furnace products
Mr JF Harper, Dr RL Higginson and Dr SNB Hodgson
£22,099 KTP and Elite Thermal Systems Ltd.

The use of composite additives in thermally and radiation cured organic coatings (support for Res. Student Mr Oliver Lewis)
Dr G Wilcox & Dr G Critchlow
£30,000 EPSRC

Mathematical Sciences

RAIS Award
Prof Y Kurylev
£37,695 EPSRC(CTA)

Mechanical & Manufacturing Engineering

Regenerative Medicine - A New Industry (Grand Challenges Programme)
Prof DJ Williams, Mr PP Conway, Prof P Dickens, Mr H Versteeg and Dr D J Malik(CG)
£550,000 EPSRC(IMCRC)

Regenerative Medicine - A New Industry (Grand Challenges Programme)
Prof DJ Williams, Mr PP Conway, Prof P Dickens, Mr H Versteeg and Dr D J Malik(CG)
£4,226,030 EPSRC

Design and Develop Low Noise Emission Vehicle Systems
Dr AD Nurse
£96,588 KTP Programme Office and JCB Services

SMART :REHAB
Dr AA West, Prof DJ Williams and Dr R Harrison
£40,000 EPSRC(IMRC)

Modelling of the Airflow and Heat Transfer in the through air bonding Process
Dr M Acar & Dr W Malalaskera
£26,046 Nonwoven Cooperative Research Centre, North Carolina State University, U.S.A.

Physics

Polaron Dynamics and Isotope Effects in Complex Oxides
Prof A Alexandrov, Dr J Samson
£172,470 EPSRC

Sport & Exercise Sciences

Achieving High Quality Pupil Outcomes in PE
Dr L Cale, Dr M Waring and Dr L Webb
£17,861 Wheldon School

Evaluation of the Football Association Club 3 Lions Out of School Hours Programme
Dr ME Weed
£25,084 The FA Ltd

Social Sciences

Postdoctoral Fellowship for Mr J D Burridge - The Discursive Construction of Moral Certainty in Contemporary Social Conflicts
Prof MG Billig
£28,229 ESRC

General Election 2005 - Media Content Analysis
Dr D Wring, Prof P Golding, Mr D Deacon and Prof M Billig
£24,020 Electoral Commission

WEDC

Slum sanitation programme in Mumbai
Mr K Sansom and Dr A Cotton
£19,778 The World Bank

News from English and Drama

Scenography and Performance

Professor Alison Oddey in the Department of English and Drama has received a cash award from the Society for Theatre Research (North).

She was presented the award for the second symposium in the Different Directions series, Modes of Spectating, which was organised by Professor Oddey and Dr Christine White. The cash will enable the filming of material that will form part of a multi-media publication to be produced by the University imprint 'Loughborough Theatre Texts'. The last symposium produced an international collection currently in press, entitled 'The Potentials of Spaces'.

Projects already underway in the Scenography and Performance Laboratory, which have been funded by the Arts and Humanities Research Council (AHRC), are Dr White's work 'Talking with the Gods', and Professor Oddey's 'Flying Free' performance and multi-media installation, which she developed whilst on AHRC funded research leave to produce the publication 'Shifting Directions: a new kind of Theatre Making in the 21st Century'.

Post graduate award

Sally Cook, a post graduate student with Professor Oddey, has been awarded £20,000 from the Arts Council of England for research into an intercultural mask project. Sally recently presented this work, entitled 'The Intercultural Properties of Masks', at the Arts and Humanities Hawaii Conference in January and has designed and launched a website - www.maskresearch.com This research will continue alongside the successful work of the taught MA students who are studying 'Making Performance & Multi-Media Texts'.

Research seminars

The Drama Research Seminars next series of speakers includes Professor David Wiles, Royal Holloway & Bedford College, Dr Anna Birch, Central St Martins and Rosa Freitag. For further information email Dr Christine White at: c.a.white@lboro.ac.uk



Pictured from the left are Dr White, Rebecca Hickie, Professor Alison Oddey, Richard Belcher, Sally Cook, Anne-Marie Neligan, Isabelle Huang. The students are all studying for a MA in the department.

Academic Year Dates from 2006/07

Following recommendations from the Committee to Review the Structure of the Academic Year, Senate has agreed to the introduction of a new pattern for the academic year, which will incorporate four week vacations at Christmas and Easter, from 2006/07.

Term and Semester dates for 2006/07 to 2008/09 based on the new arrangements have now also been approved by Senate and are as follows:

Academic Year 2006 - 2007:

Semester One: 2 October 2006 - 9 February 2007
Semester Two: 12 February 2007 - 22 June 2007
Autumn Term: Monday 2 October - Friday 15 December 2006
Spring Term: Monday 15 January - Friday 23 March 2007
Summer Term: Monday 23 April - Friday 22 June 2007

Academic Year 2007 - 2008 (Leap Year):

Semester One: 1 October 2007 - 8 February 2008
Semester Two: 11 February 2008 - 20 June 2008
Autumn Term: Monday 1 October - Friday 14 December 2007
Spring Term: Monday 14 January - Friday 14 March 2008
Summer Term: Monday 14 April - Friday 20 June 2008

Academic Year 2008 - 2009:

Semester One: 29 September 2008 - 6 February 2009
Semester Two: 9 February 2009 - 19 June 2009
Autumn Term: Monday 29 September - Friday 12 December 2008
Spring Term: Monday 12 January - Friday 27 March 2009
Summer Term: Monday 27 April - Friday 19 June 2009

CCFR news

Following the success of past events the Centre for Child and Family Research (CCFR) is holding its 'Costs, Consequences and Benefits of Social Care' conference on Friday 1 July 2005.

This will be an opportunity to share with delegates new research findings from recently completed and on-going projects that will underpin the future development of Government policy and the practice of social services for children and adults. The conference will explore recent research evidence on the costs and outcomes of social care for

children and adults and will look at the implications of these findings for policy and practice. The keynote speakers all have exceptional reputations in their field of research.

This will be a great opportunity to hear new findings, listen to the researchers, and network with practitioners, policy makers, trainers and managers from the field of social care. The conference will take place at the University's new dedicated conferencing suite, located on the campus in Holywell Park. If you are interested in registering please email ccfr@lboro.ac.uk

Students investigate chemical substitutes for blood

Students in the Chemical Engineering Department have been investigating a completely synthetic alternative to blood for transfusion purposes.

The work is being conducted as a final-year MEng design project, supervised by Dr Klaus Hellgardt and Professor Chris Rielly. The aim of the project is to conceive and formulate a health care product, as well as to design the manufacturing process route, which could supply 10 percent of the UK's demand for blood. The product has to be compatible with all blood groups, remain stable for several months at room temperature and stay completely sterile.

The key to the artificial blood developed by the students is a fluorinated hydrocarbon that can carry more oxygen than real blood. A system of novel adsorption and distillation processes has been devised by Simon Davies to purify the required chemicals to pharmaceutical grade. The artificial blood is a white emulsion of fluorinated hydrocarbons dispersed in water and surfactants, using either a high-pressure homogeniser, or using a continuous flow ultrasonic reactor developed by Abs Majid.

The nano-droplets (300 nm) generated in this emulsification process must be small enough to traverse even the narrowest capillaries in the body. This is ensured

using a high shear cross-flow filtration module created by Tim Windebank.

With an ageing population, declining numbers of blood donors and increasing concerns about transmission of diseases via transfusion, the project is very relevant. Professor Chris Rielly said: "The group have worked incredibly hard on this project, and the product they have come up with is very impressive. Immense sums of money is invested into the development of artificial blood across the world so the students' work is very topical."

The group attribute their success to an excellent team spirit, everyone involved in the project taking ownership of part of the process, and to taking the initiative and building bridges with other research groups in Loughborough and Nottingham Universities.

The group will be holding a seminar on the project in the Chemical Engineering Department on 9 June.

For more information on blood substitutes, see the Euro Blood Substitutes website: www.eurobloodsubstitutes.com

Praise for WEDC PhD student

Former WEDC PhD student Abdel-Majid Nassar has come runner up for a prestigious award by the Karim Rida Said Foundation (KRSF).

Abdel-Majid, who is from Gaza, received his PhD in 2004 for his work on 'Sludge management using reed beds in the Gaza Strip - Palestine'.

He was supervised by Mike Smith from WEDC and his research was funded by the KRSF.

At a dinner for KRSF scholars at the Royal College of Physicians in London on 15 April three prizes were awarded to outstanding scholars, and Abdel-Majid was second runner up, winning a prize of \$4,000.

He was presented with his award by Wafic Rida Said, Chairman of the KRSF Trustees. Mike Smith also attended the awards ceremony.

Since completing his PhD Abdel-Majid has been appointed head of the Civil Engineering Department at the Islamic University in Gaza.



Dummies project gains student reward

Student David Atterbury, who is based in the Wolfson School of Mechanical and Manufacturing Engineering, has picked up a top accolade for his work on a project to cut the time and cost of crash-testing new cars using new computer techniques.

The East Midlands' Universities, in partnership with the East Midlands Professional Engineering Institutions (EMPEI) can each award an annual Masters Prize to the student whose project is identified as 'most likely to change the future.'

This year, seven awards of £250 were presented on 3 May at the Henry Ford College, based on the campus. The EMPEI Masters Prizes aim to encourage, reward and recognise good work by the individuals and the universities. They can be awarded for project work by students of any age who are

researching for a higher degree in science, engineering or technology at an East Midlands' university. David, who is from Chelmsford and an Affiliate Member of the Institution of Mechanical Engineers, was nominated for the Masters Prize by Loughborough, a leader in the field of vehicle safety engineering.



David said: "Crash-testing cars is essential to provide safety for people in them, but it is very expensive. By developing computer simulation of the crash dummies we can reduce the cost of testing and ensure that the crash test focuses on the key design features."

Barry Stickings CBE, Chairman of the East Midlands Science, Innovation and Industry Council congratulated David. He said: "I am very impressed with the standard of this winning project and it has great potential to make a major impact on the way industry ensures vehicle safety."



Loughborough take three British Universities Rugby titles

Loughborough won the British Universities Rugby championship at Twickenham in April against UWE Hartpury with a top class performance from both attack and defence.

The match was effectively won with a classic opening half-hour of forward play.

Tries from three close-range catch and drive movements, two of them touched down by 21-year-old Yorkshire prop Matthew Webber, laid the foundations for Loughborough's triumph.

The cutting edge of the Loughborough pack gave them long periods of control, but Hartpury were always dangerous on the counter through halfbacks Sean Lynn and Rory Teague.

Loughborough led 19-6 but had to defend as well as they attacked as the challenge

from Hartpury, with their strong blend of Gloucester players, grew and strengthened. Hartpury gained a morale-boosting try through James Merriman on half-time when Loughborough had lost wing Andrew Banfield to the sin bin.

A second Hartpury try from Leo Havalatu after 55 minutes mirrored Loughborough's earlier efforts, but they were unable to force another score.

Teague, who kicked two first-half penalties, missed his conversion chances and was wide with a dropped goal attempt. The final score was Loughborough 19 UWE Hartpury 16.

Loughborough won the women's final for a record third year in a row with a 22-20 victory over University of Wales Institute Cardiff (UWIC).

Alice Lovett kicked the deciding penalty for Loughborough in the 13th minute of stoppage time after UWIC had gone ahead for the first time with a try from 70 metres out by Celine Allainhat nine minutes earlier.

Talking about the championship Matthew Webber said: "It was an awesome day - we played well to hold our lead.

"Our girls won their final against UWIC, and our 3rd team also won against UWIC."

British Swimming meet held at University

The cream of British Swimming participated in the stage one meet held in the EIS University Pool earlier this month.

The top senior, youth and junior swimmers were split into two teams and raced head to head over a two-session programme, which covered the full Olympic

programme. Loughborough University swim stars produced some fine performances, with Chris Cozens winning the 50m and 100m freestyle, Lisa

Chapman the 50m and 100m freestyle, James Gibson the 100m breaststroke and Melanie Marshall the 200m freestyle.

The DDIG Conference

The Dyscalculia and Dyslexia Interest Group (DDIG) held its first full day event on 13 April in the Edward Herbert Building. The title of the day was 'Innovations – the DDIG conference'.

DDIG aims to help dyscalculic and dyslexic students with mathematics in HE by exchanging information between practitioners, raising awareness of the issues and offering a forum for discussion. The group is run from the Mathematics Education Centre (MEC) at the University by Clare Trott and the conference was organised in conjunction with the Higher Education Academy Engineering Subject Centre.

After a brief introduction, there were two presentations. The first, 'Maths Matters In

Higher Education', was from Anne Mitchell, Director of the Helen Arkell Dyslexia Centre. Anne presented an overview of the needs of dyslexic and dyscalculic students in Higher Education and discussed the importance of mathematics in many areas of HE. The second was from Clare Trott and Nigel Beacham of the MEC. They presented their findings on the development of a first-line screening devise for dyscalculia in HE.

The morning concluded with a selection of optional sessions and after lunch, delegates were able to choose from a variety of workshops.

These covered a wide range of interests including teaching statistics, visual perceptual difficulties and developing assistive technology for dyslexic students.

The programme concluded with two further presentations. The first from Christopher Jones and Carol Hall, School of Nursing, University of Nottingham, entitled 'Working together to develop mathematical skills for nursing practice'.

The final presentation was from Jim Boyle, University of Strathclyde, called 'Supporting bioscience students with mathematical difficulties in Higher Education'.

Dr Tony Croft, MEC Director said: "More than 120 delegates representing nearly 70 different institutions and organisations attended the conference, proving the significant external interest in the work of the DDIG group in supporting the mathematical needs of students with learning difficulties."

Obituaries

Professor William Frederic Floyd



It is with great sadness that we report the death of Professor William Frederic Floyd, who passed away on 28 March, aged 95.

Born in London on 10 January 1910, Professor Floyd attended St Marylebone Grammar School where he developed an early interest in electronics and radio. In 1931 he was awarded a BSc in mathematics by Queen Mary College, London University. Subsequently he obtained a teaching diploma and, later, a PhD in physiology. He also held the engineering qualifications of CEng, M.I.E.E., and was a Fellow of the Institute of Physics.

Before the Second World War Professor Floyd was a demonstrator in physiology at the Middlesex Hospital Medical School, where he was strongly influenced by his early mentors at London University, Professors Wright and Woodger, an eminent medical scientist and an eminent biological logician, respectively. As a result he developed a deep interest in the neural mechanisms involved in the control of muscle action in human beings, a forerunner of one aspect of what later became known as cybernetics.

During the war he received a commission in the RAF and attained the rank of Squadron Leader, working on the installation and operation of ground radars in the basin of the Indian Ocean. After the war he returned to the medical school where he extended his studies of physiology, particularly into muscular action, developing electromyographic recording techniques, on which he published a number of papers. He was later appointed Senior Lecturer and also served as a part time consultant to the Post Office, where among other things he designed an ergonomic chair for telephone switchboard operators - an early practical application of ergonomics in the workplace.

In 1949 he was one of the founder members of the then Ergonomics Research Society, now the Ergonomics Society, along with other distinguished scientists such as Dr O Edholm, Dr A T Welford, Dr J Weiner, Mr H Murrell and Professor R C Browne. He was joint secretary of the Society until 1954 and played an important role as Joint Editor of the Journal Ergonomics. He, together with Dr A T Welford, edited the two Society publications: Symposium on Human Factors in Equipment Design and Symposium on Fatigue. Both these publications were the first learned texts in ergonomics in the English language and universally well received.

Professor Floyd joined the then Loughborough College of Technology in 1959 and was responsible for the inauguration of the teaching of ergonomics as a full academic subject in the world of higher education. He was appointed Head of the new Department of Ergonomics and Cybernetics in 1960 and was made Professor in 1964, just prior to the College being transformed into Loughborough University of Technology in 1966. He was the first person in the world to hold this title. The College had no previous history in ergonomics and cybernetics, these subjects being virgin territory. To commit a department to full-time teaching and research in these field was a very bold experiment, especially as very few people even knew what the two words meant.

There was, therefore, some risk that the enterprise might shortly fail. Indeed, after seven or so years, teaching and research in cybernetics was discontinued. However, under Professor Floyd's leadership, together with his colleagues, there rapidly developed a thriving department of undergraduate and postgraduate teaching and

research in ergonomics. A wide range of external organisations soon sponsored research. These included the British Motor Corporation, the Post Office, the Consumers' Association, the Electricity Research Council, the Ministry of Technology, the Medical Research Council and the University Grants Committee.

After having established ergonomics at Loughborough, Professor Floyd foresaw the need to expand the department and in 1970 human biology was added as a new subject followed by human psychology in 1975. The department was then renamed the Department of Human Sciences. In 1973 Professor Floyd relinquished the Chair and the headship and was reappointed Professor of Human Biology, a post he held until his retirement in 1975. On his retirement he was granted the title of Emeritus Professor.

A cornerstone of Professor Floyd's beliefs was that it is essential to attract overseas students. In consequence, many students from abroad have been educated in ergonomics at Loughborough, not only from developed countries in Europe and Scandinavia, in North America, the Far East and Australasia, but also from developing countries in Africa, Central and South America, parts of the Asian continent, the Indian sub-continent and the Far South East. Many of these have set up major ergonomics activities in universities, government, commerce and industry in their home countries after leaving Loughborough. They, their colleagues, and many others throughout the world regard Loughborough as the home of ergonomics. It is a fitting tribute that the educational and research work he initiated continues today, in other hands, and that many hundreds of students have both enjoyed and profited from this large and successful department.

During his academic career, Will, as he was known to his friends, took a keen interest in farming, acquiring smallholdings in Wales. In retirement he devoted himself, together with his family, to his farm, and also returned to a former interest as a radio ham. Professor Floyd is survived by a son, Keith, and two daughters, Gillian and Valerie.

Peter Stone and Stuart Kirk

Christopher Bigger

It is with great sadness that we report the death of Christopher Bigger, Academic Services Manager (engineering) in the University Library, who passed away on 23 April. A Loughborough graduate (BSc Library Studies 1977), Chris had worked for the Institution of Electrical Engineers, the Marconi Research Centre, where he was Chief Librarian for 12 years, and the Leicester Health Promotion Agency before returning to the University in August 2001.

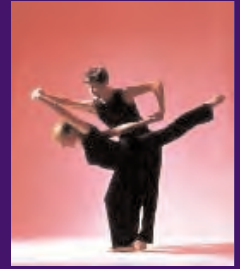


In his library post Chris led the engineering team, liaised closely with engineering departments over their information support requirements, and was responsible for enhancing library support for research. In that role he developed excellent working relationships with the Research Office, and with researchers in all three Faculties. Passionate about equipping people with information skills, Chris is remembered for the committed enthusiasm he brought to all aspects of the work he loved, and as a very popular colleague and friend.

We extend our deepest sympathy to Chris's widow, Sally, and his family.

Mary Morley

- Thursday
26 May** **Love's but the Frailty of the Mind** **7.30pm**
Catherine Bott, Soprano & David Owen Norris, Harpsichord.
Cope Auditorium. Adults: £8, Students: £6, Concessions: £6.
Further details from Viv Green, T 01509 222899.
- Saturday
28 May** **Swimming Technique Clinic** **2.30pm – 5.30pm**
Swimming Technique Clinic for competitive swimmers
aged 10-16 years old. EIS Swimming Pool. Students: £25.
Further details from Reception, T 01509 226200.
- 31 May –
3 June** **Loughborough Soccer Schools** **10.30am – 12.30pm**
Rubbercrumb. Concessions: £17/£37. **10.30am – 3.30pm**
Further details from Mal Shotton, T 07734 850043.
- 11 June –
12 June** **MCC Universities Championship** **11.00am**
UCCE men against Leeds/Bradford. Haslegrave pitch.
Further details from Joe Callender, T 01509 635052.
- Friday
17 June** **LSCC Women's 1st XI** **2.00pm**
UCCE against Army women. Haslegrave pitch. Further details
from Joe Callender, T 01509 635052.
- Sunday
19 June** **Community Fun Day** **12 noon – 4.00pm**
Students' Union's annual fun packed day for all the
family. Event includes traditional stalls, races and displays.
Outside the Students' Union.
Further details from Katy Osbourne, T 01509 635041.
- 20 June –
24 June** **Laser Safety Management Course** **9.00am – 5.00pm**
A practical laser safety course covering the real issues
within managing laser safety in any environment.
Burleigh Court International Conference Centre.
£1610+ VAT including meals and accommodation.
Further details from Dr John O'Hagan, T 01235 822673.
- Thursday
23 June** **University Open Day** **9.30am – 3.30pm**
University Open Day for all prospective undergraduate
students. Further details from Undergraduate Admissions Office,
T 01509 223522.
- 11 July –
13 July** **Wind Power Summer School** **10.00am – 5.30pm**
An internationally recognised annual course which has
been updated and will now run over 3 days. Holywell Park.
Adults: £850, Students: £350, Day rate: £350.
Further details from Julie Allen, T 01509 227087.
- 14 July –
15 July** **Wind Farm Connection Issues** **9.00am – 5.15pm**
A new 2-day course which looks in-depth at key issues
including connection practices, standards and tariffs for
wind farm planners. Holywell Park.
Adults: £595, Students: £300.
Further details from Julie Allen, T 01509 227087.
- 25 July –
28 July** **Swimming Technique Training Week** **10.30am – 12.30pm**
This is a four day training camp for competitive swimmers
covering all 4 strokes. EIS Swimming Pool. Students: £50.
Further details from Reception, T 01509 226200.



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Column Divider: 2 Column width on 4 Col Grid

Col Divider.eps

Column Divider: 1 Column width on 4 Col Grid

**Authors' Name,
Department if applicable**

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