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Cake cutting marks start of 40th anniversary celebrations

Celebrations to mark Loughborough University's 40th anniversary officially began on February 17 when Vice Chancellor Professor Shirley Pearce and Alumni President Peter Davenport cut a special cake to commemorate four decades of University success. And in this, the 40th edition of news@lboro, it seemed appropriate to officially announce the start of the celebrations.

The University came into being back in 1966, when Her Majesty The Queen awarded Loughborough its Charter on April 19, in recognition of the excellence achieved by Loughborough College of Advanced Technology and its predecessor colleges.

Loughborough University of Technology was the country's first technological university, and was renamed Loughborough University in 1996.

Over the last forty years it has built up an international reputation for excellence in teaching, research, links with industry and sport. Much of the credit for the University's achievements must go to its Vice Chancellors: Dr Herbert Haslegrave (1966-67), Professor Elfyn Richards (1967-1975), Sir Clifford Butler (1975-1985), Professor John Phillips (1986-1987), Professor Sir David Davies (1988-1993), Professor Sir David Wallace (1994-2005), and Professor Shirley Pearce, who officially joined the University in January.

Speaking about the 40th anniversary celebrations Professor Pearce said: "Loughborough University has a long and prestigious heritage. In this, my first year as Vice Chancellor, I am pleased to celebrate its many achievements over the past forty years, and am delighted to contribute to its future development."

The first of the 40th anniversary celebrations were held at the University's meeting of Court. A number of other special events will be held throughout the year, including an additional day of holiday for staff on the anniversary of the award of the University Charter - April 19.

A commemorative publication will also be produced to mark the occasion, and a special feature looking back at the 40-year history of Loughborough University will be in the next edition of news@lboro.

For further information about the 40th anniversary programme please contact Susan Denoyer by calling 01509 223447 or email S.C.Denoyer@lboro.ac.uk

In 2009 Loughborough will celebrate its Centenary, marking a hundred years since the establishment of Loughborough Technical Institute - the University's 'ancestor'.



Widening Participation update

The work carried out as part of the University's Widening Participation (WP) initiative continues to develop and in January the first WP Monitoring Forum was held.

This event brought together colleagues from across the campus and external partners from local schools and colleges to discuss the delivery and development of key initiatives over the last twelve months. Of these, particular significance was given to two projects, one involving mature students and the other young Muslim females.

In the last year the WP team has been working closely with the Students' Union to improve the social opportunities and representation of mature students, which are classed as those aged over 21 at registration. This is essential work at Loughborough because mature students are distributed in modest numbers across the campus and don't always find it easy to meet.

In addition to the annual induction day for the new intake of mature students, three social gatherings have been hosted by the Union to bring mature and postgraduate students together. These have been enthusiastically attended, and by the end of the second social gathering a committee for a Mature and Postgraduate Association was elected.

The new committee is keen to attract members and run events to everyone's tastes. Any mature student who would like to get involved should email mps@lborosu.org.uk Staff are also urged to let mature students based within their own departments know about this development.

The Widening Access Through Sport (WATS) project, which originally began in 2003, continues to focus on exposing Muslim young people to higher education environments through the use of sport.

Led by Rahmanara Chowdhury, the programme has developed over the last year to include a summer school targeted specifically at Muslim girls. Half of the programme is dedicated to sports activities, with the remaining half focusing on academic and personal development.

The Summer School allows young females, who ordinarily might not have the opportunity to experience university life for a variety of reasons, to come onto campus and get a real taste of what it could be like. The academic side consists of a range of taster sessions within numerous University departments. At the same time the young people are given the opportunity to take part in sport activities in a very welcoming and private environment that accommodates their needs.

Both the WATS project and the Muslim Girls Summer School have opened up a new dialogue between communities and the University that previously did not exist. The next Muslim Girls Summer School will take place later this year. Any academic departments interested in delivering taster sessions are asked to contact Rahmanara Chowdhury by emailing R.Chowdhury@lboro.ac.uk

For information about how your department can get involved in WP activities contact Mark Lister by calling 01509 222246 or email M.Lister@lboro.ac.uk

Making Poverty History – The WEDC approach

The pioneering work of the University's Water, Engineering and Development Centre (WEDC) was discussed at a special event in Loughborough in February.

WEDC is one of the world's leading institutions concerned with the planning, provision, and management of basic infrastructure services, such as water supply and sanitation, in developing countries.

At the event, held at John Storer House in Loughborough, staff from WEDC described the approach they have taken over the last 30 years to help improve the health and well-being of some of the world's poorest people, including those affected by natural disasters and war. They described this approach as 'people-centred', which involves looking at people's problems from different perspectives and recognising that long-term solutions require an understanding of the social, cultural, health, economic, financial, institutional and environmental backgrounds of the poor, and not just the technology.

The presenters gave graphic and insightful accounts of their experiences of working on water supply and sanitation projects in developing countries, as well as discussing how they have influenced national and international policy.

The meeting was hosted by Loughborough Quakers and was attended by more than fifty people, including the Vice Chancellor Professor Shirley Pearce.

250 Club continues to support the next generation of sporting stars

Local company Gill Cooke Personnel Ltd have for the fifth year running joined forces with Loughborough University to help raise funds for its sports scholarship scheme.

This scheme provides financial and in-kind support to help talented Loughborough students succeed in both their sport and academic studies.

Past and present sports scholars include Commonwealth gold medallists and world record holders, such as Paula Radcliffe, Chris Rawlinson and James Gibson.

Caroline Nash of Gill Cooke Personnel attended the November and December 250 Club prize draw, along with Vice Chancellor Shirley Pearce and several of the current sports scholars.

For further information on how to join the 250 Club contact Jane Fitzmaurice by emailing J.F.L.Fitzmaurice@lboro.ac.uk

Her Majesty The Queen presents University with a Queen's Anniversary Prize for its world-leading role in social policy

Her Majesty The Queen recently presented the University with a Queen's Anniversary Prize for Higher and Further Education, which was bestowed on Loughborough in recognition of its outstanding and widely respected work in evaluating and helping develop social policy-related programmes.

It is the fifth time the University has captured one of the prestigious awards, which are given in recognition of outstanding educational achievement in areas of service and benefit to the nation.

Concentrated within the Department of Social Sciences, Loughborough's policy related research is held in high regard, both by its peers for its intellectual value and by its beneficiaries at all levels. Relevance to practice and to national and local policy development are key characteristics. Emphasis is placed on the dissemination of research and the development of practical tools to aid social policy.

Much of the research has direct relevance for Government: researchers within the department have worked or are currently working with two-thirds of Government departments on social policy-related issues. Research is also conducted in partnership with local authorities, and the voluntary and charity sectors.

Among the department's current research portfolio are projects looking into new approaches to crime prevention through better home design; babies at risk of significant harm; new systems to help local authorities control the cost of children in care; changes to the way childcare is conducted and funded in the UK; new ways for the Government to tackle poverty and social exclusion; and the links between HIV/AIDS and recent fertility patterns in Kenya.

Professor Peter Golding, Head of the Department of Social Sciences, said he was thrilled at the recognition the award brings to Loughborough's research in social policy. He added: "We take great pride in the combination of academic rigour and innovation with real impact on the quality of people's lives and on policy making, which are the characteristics of our social policy research. This is recognised by senior policy makers both here and internationally, and this prize is an outstanding reward for a lot of hard effort and top quality research."

Attending the ceremony at Buckingham Palace were University Chancellor Sir John Jennings, Vice Chancellor Professor Shirley Pearce, Professor Peter Golding, Professor of Social Policy Ruth Lister, Sue Middleton (Director of the Centre for Research in Social Policy), Professor Harriet Ward (Director of the Centre for Child and Family Research) and Professor Graham Farrell (Director of the Midlands Centre for Criminology and Criminal Justice).

Loughborough has been outstandingly successful in the Queen's

Anniversary Prizes scheme, gaining five awards – an achievement equalled only by Oxford.

The University received its first award in 1994 for its partnerships with the aerospace industry, particularly Rolls-Royce and BAE Systems. Its second award was received in 1998, in recognition of the Institute of Development Engineering's unique service to developing countries, providing and managing sustainable infrastructure. Loughborough gained its third award in 2000, in recognition of the Optical Engineering Group's pioneering role in developing applications of modern optics and laser technologies to find practical solutions to real-world problems. Its fourth award was presented in 2002, in recognition of the University's position as the country's premier institution for sports development, and its world-leading role in sports research and education.



Clinics inspire young cricketers

A series of children's cricket clinics taking place on campus this winter have got off to a flying start.

The sessions, which started at the beginning of February, are being held in the state-of-the-art ECB National Cricket Centre and are open to boys and girls aged eight to 14. Led by top quality coaches, the clinics are offering children the opportunity to learn the basics of the game, improve or even perfect their batting, bowling or fielding techniques.

Ian Gaunt, Community Sports Development Officer at Loughborough University comments: "With England's Ashes glory still fresh in the memory, there has been a great deal of interest in these clinics. We would love the next generation of England players to emerge from the local area!"

Anyone requiring further information about the cricket clinics should contact Ian Gaunt on 01509 226125 or email I.T.F.Gaunt@lboro.ac.uk

[Young cricketers learn new skills at Loughborough camp.](#)



Students' artwork to take pride of place in new campus building

Impressive artwork created by University students has been selected to go on permanent display in the new extension to the Sir Frank Gibb building.

Students from across the School of Art and Design battled it out for the chance to have their work displayed in the building, taking advantage of its open plan spaces and atrium. Sculptures, textile designs and video work were just some of the pieces in contention for the prestigious installation.

The winning entry was a series of bold silk-screened Perspex light fittings by Fine Art student Rob Pratt. The prints were created to mirror the structure and industrial nature of the building and the activities that take place inside.

In second place was Multimedia Textiles student Ryan Dunn, who based his designs on computer circuit boards to create dual layer Perspex panels that use intricately cut shapes.

And in joint third were Multimedia Textiles student Jane Bowler and Fine Art student Vicky Audsley. Jane's textile work was designed to reflect the fusion between the organic form of the human body and the constructed nature of machinery components. Vicky's work was inspired by the contrast between the accuracy and detail of the architect's plans for the new building, and the excitement and creativity of the people working within it. This led her to create a large-scale painting on Perspex that included printed architectural imagery, overlaid with transparent and coloured materials.

Simon Austin, from the Department of Civil and Building Engineering, is the design champion for the new building. He secured support from the Loughborough University Development Trust to cover the cost of producing the art works and the prize fund, and was one of the competition judges. He said: "I have been keen to build bridges with the School of Art and Design for many years and saw this as an ideal opportunity. The quality of the work submitted for the competition was outstanding and the winning design will look fantastic in the new building once it is completed."

Others who played a key part in the competition included Alan Bunkham from the School of Art and Design and Doug Streeter, the principal architect from Swanke Hayden Connell.

[The winning artwork created by Rob Pratt.](#)



Family Research Centre gets long term funding for work with children

The Centre for Child and Family Research (CCFR) has been awarded £728,250 for a programme of study on 'outcomes for vulnerable children'.

The funding, from the Department for Education and Skills, extends the Centre's existing contract until December 2008, with the possibility of a further two-year extension up to 2010.

Findings from the research will provide evidence for policy makers on the cross-governmental agenda entitled 'Every Child Matters: Change for Children'. Staff at the CCFR will continue to work on three major projects in this area: a large cohort study of needs, experiences and outcomes for looked after children, now nearing completion; a study of the consequences of decisions made for very young children at risk of significant harm; and a series of studies on the relationship between costs and outcomes of child welfare interventions.

They will also co-ordinate an international working party comparing transitions from care to independence in Europe and North America, and provide academic consultancy to the new national DFES/DH research programme on safeguarding children.

The CCFR is led by Professor Harriet Ward in the Department of Social Sciences. The centre was a major part of the broad programme of research in social policy, which led to the recent award of the Queen's Anniversary Prize to the University.

IPTME staff to help build fusion reactor device

Staff from Loughborough's Institute of Polymer Technology and Materials Engineering (IPTME) will be helping to build the world's first prototype fusion reactor device, ITER.

The IPTME team have been awarded £277,000 by the Engineering and Physical Sciences Research Council (EPSRC) to take part in the international project, for which they will work alongside experts from the USA, China, Japan, Korea, Russia and Europe.

For their part of the project staff from IPTME will devise ways to provide new materials for the first wall of the ITER device, as well as attend international meetings where ITER design issues are discussed.

Professor Roy Faulkner, who leads the IPTME group with Dr Zheng Lu, has many years of experience in materials selection for nuclear plant, and is very excited by the prospect of working on such a prestigious project. He said: "The engineering challenges set by the ITER device design are enormous. The first wall materials must withstand thermal fluxes of 4 MW/square metre, and the temperature gradient ranges from 4K to 100 million K in the space of a few metres."

Professor Faulkner's team has been working on a special steel that will meet the ITER requirements for the first wall application.

Knowledge Transfer Partnerships top £7m

The University's Knowledge Transfer Partnerships (KTP) office celebrates its 10th anniversary this year.

Over the past ten years the KTP office, formerly known as a TCS Centre, has secured more than £7 million of external funding. It has used this cash to support over 50 projects to help industry and public sector organisations improve their competitiveness and productivity through the transfer of knowledge, technology and skills.

Each KTP involves a high quality graduate, known as an Associate, working in a company or organisation on a project central to the needs of the company, with support from University academics from a wide range of fields including engineering, materials, IT, business, design and social sciences.

Loughborough's KTP office has been particularly successful over the last 18 months, increasing the number of KTP Associate projects from 11 to 22. Departments from across all three of the University's faculties are currently involved in KTP and the value of current projects exceeds £2.2m.

If you have a potential project or would like further information about Knowledge Transfer Partnerships, contact the KTP Office by calling 01509 223110, or emailing kt@lboro.ac.uk. Alternatively visit the KTP Office website at www.lboro.ac.uk/ktp

Experts examine the other side of humour

A new book that focuses on the negative side of humour has been published by two university experts.

'Beyond a Joke: The Limits of Humour' has been edited by Michael Pickering from Loughborough University and Sharon Lockyer from De Montfort University, Leicester. It brings together a range of contributors, who explore the ethics as well as the aesthetics of humour, both in everyday life and media comedy.

As well as covering live stage comedy and everyday humour, the book deals with the broad spectrum of media genres, including sitcoms, the internet, reality TV, talk shows and film comedy.

It includes interviews with comedians Omid Djalili and Shazia Mirza, and discusses many other famous comedians, including Tony Hancock, Dawn French, Ali G, Mrs Merton, Bill Maher, Jim Davidson and Bernard Manning. It also analyses major television series like *Sex and the City*, *Absolutely Fabulous* and *The Office*.

While all the contributors to the book appreciate the value of humour and celebrate its pleasures, they also focus on the uses and abuses of humour, some of which excite considerable social tension and controversy, as for example with the English Conservative MP Ann Winterton's joke about Chinese cockle pickers, following their tragic deaths by drowning in February 2004.

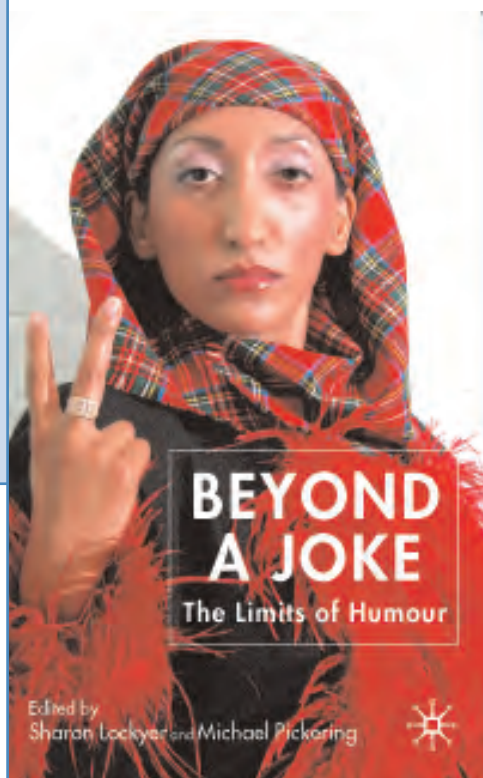
The book considers the boundaries of humour and where these may be located, moving public debate beyond simple objections to

political correctness and focusing on what is harmful as well as beneficial about humour.

Michael Pickering, one of the book's editors, is a Reader in Culture and Communications at Loughborough University. He said: "Writing seriously about the ethics of humour means you run the risk of being labelled a po-faced academic with a gigantic humour deficiency. While this would be far from the truth, it seems to us a risk worth taking in the interests of engaging critically with forms of humour which belittle and deprecate others, or cause them considerable hurt and offence."

'Beyond a Joke: The Limits of Humour' is published in hardback by Palgrave Macmillan, priced at £45.

'Beyond a Joke: The Limits of Humour' is on sale now.



Physics student scoops top award

A Loughborough physics student has scooped third place in a prestigious competition held at the House of Commons.

The reception for young physicists aged under 35 was organized by SET for BRITAIN to illustrate how physics research benefits the UK. At the event Dima Gulevich, a third-year PhD student, presented his poster, entitled 'The Hurricanes of the Josephson Rings'.

Posters at SET events are judged by distinguished, older scientists on the basis of novelty, quality and merit of the research described in them, the advancement of knowledge, and the personal contribution to and understanding of the research by the actual presenter. Winning one of the SET medals is a significant personal achievement in view of the high competition for places.

Dima's poster presentation was rated as not only having the highest scientific quality but was also extremely popular amongst the judges.

Could hopping hold the key to preventing painful bone condition?

University experts have embarked on an exciting new research project which aims to establish the level of exercise needed to improve bone health, and hence reduce the risk of osteoporosis.

One in every three women in the UK over the age of 50 is likely to develop the painful condition where bone mass is lost, leaving them fragile and susceptible to fracture.

It has already been proven that exercise can increase bone density and so help to reduce the risk of problems in later life. However, not all types of exercise work – the most effective types are those that exert high forces on the skeleton.

Previous research has found that jumping for only a couple of minutes each day can increase bone mineral density in young women. But a recent study by Dr Katherine Brooke-Wavell and Christine Bailey, who are based in the University's Department of Human Sciences, found that hopping exercises produced even more force than jumping. However there is very limited evidence as to how often such exercises must be carried out to optimise bone health – is once a week enough, or once a day better?

The Loughborough scientists are hoping to find an answer to this by investigating how many times a week a series of hopping exercises need to be carried out in order to increase bone density.

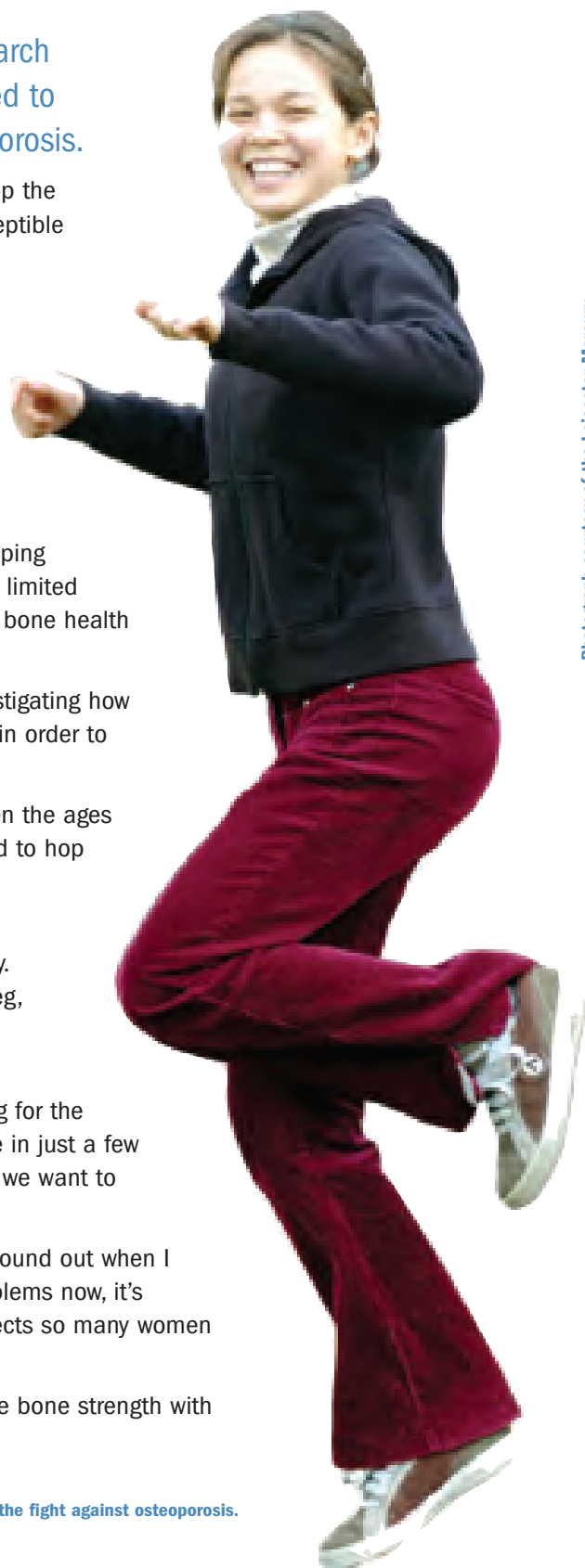
Dr Brooke-Wavell, the project supervisor, has recruited 50 women between the ages of 18 and 45 to take part in the research. The volunteers will be required to hop for two minutes, from between two and six days per week for six months.

Speaking about the study, Dr Brooke-Wavell said: "Jumping and hopping produces the type of high strain rate that seems to increase bone density. With hopping you have the added advantage that it can be on just one leg, whilst the other side can be used as a control enabling us to make a comparison at the end of the study.

"The other key point is that the hopping exercises volunteers will be doing for the research are easy to fit into a daily routine, as they can be done at home in just a few minutes without the need for any special equipment. This is important if we want to encourage others in the future to do them on a regular basis."

Christine Bailey, a PhD student who is assisting with the project, said: "I found out when I was 18 that I had a low bone density and although I don't have any problems now, it's something that could cause me difficulties in later life. Osteoporosis affects so many women and that is why it is important to try and discover ways of tackling it."

Findings from the research will be valuable in determining how to improve bone strength with the minimum amount of exercise.



Photograph courtesy of the Leicester Mercury

Research grants and contracts over £7,000 awarded in December and January

Aeronautical & Automotive Engineering

Repair and Maintenance of the Nozzle Test Rig
Prof J McGuirk
£11,500 BAE Systems

HPCx resources and support for the LESUK_3 Consortium (2006-2008)
Prof J McGuirk, Dr G Page and Dr Z Yang
£61,542 EPSRC

Business School

Trojan Horse Construction Site Safety Messages; Phase II; Behavioural Observation
Dr A Cheyne and Dr D Walker
£43,800 HSE

Chemistry

Borohydride Fuel Cells
Prof S Fletcher
£23,737 DSTL

Civil & Building Engineering

Reducing Waste Through Integrated Product Design and Manufacture
Mr M Osmani and Prof A Price
£179,944 DTI

Avoiding Structural Collapse in Refurbishment: DSS Evaluation - AWARD INCREASE
Prof C J Anumba
£11,510 HSE

(IDCHI)
Prof A Price
£76,056 EPSRC(IMRC)

Eng.D.Programme - Title: New Timetable Laser Interface for Mass Spectrometry
Dr B L Sharp
£110,584 EPSRC/New Wave Research Co. Ltd

Propensity to Fly: The development of stated choice models for air travel
Dr T J Ryley
£126,118 EPSRC

Cascading messages through others: the effect on awareness of and compliance with the duty to manage asbestos
Prof A G F Gibb
£10,975 Institute of Employment Studies

CRSP

The Provision of DWP Mini Schools
Dr B R Stafford, Dr S Roberts and Miss Y F Hartfree
£29,770 Department for Work and Pensions

Electronic & Electrical Engineering
BAE Systems Kalman Filters for Structural Coupling Extension - AWARD INCREASE

Prof R M Goodall
£17,000 BAE Systems

e-GAP: Cold Atmospheric Plasmas
Prof P Smith, Prof R Wakeman, Prof M Kong, Dr G Shama and Prof I R Smith
£338,516 EPSRC

Tesla Coil based novel radiating system
Prof I R Smith
£25,276 DSTL

ESRI

Communication by Gaze Interaction (COGAIN)
Prof A Gale and Dr G Hong
£17,936 European Commission

Personal Protective Equipment within the Sports Industry
Mr J H Richardson
£41,913 EPSRC(IMRC)

Geography

Identifying sub-basin scale Aeolian dust sources in Australia
Dr J Bullard
£62,000 The Leverhulme Trust

Human Sciences

Collaboration in Research and Development of new Curriculum in Sound & Vibration (CIRCIS)
Dr N J Mansfield
£111,541 European Commission

Effective manual handling training
Prof C Haslam, Prof R Haslam and Dr S Hignett
£112,500 HSE

Research Scholarship Programme
Dr S M Hignett
£25,000 Liko Competence AB, Sweden

Childhood determinants of adolescent risk factors for later morbidity
Prof N Cameron and Dr P Griffiths
£70,040 THE WELLCOME TRUST

Information Science

Statistical Research & Services
Dr J E Davies and Mrs C Creaser
£116,010 Resource

IPTME

Direct Laser Point of Process Material Synthesis using Sol-Gel Chemistry - DLPOP
Dr S Hodgson
£150,834 DTI

Design and development of new generation sub miniature fluorescence lamps (MULAMP)
Dr S Hodgson
£190,946 DTI

Mathematical Sciences
Masters Training Package
Prof A C Pugh
£227,500 EPSRC(CTA)

Mechanical & Manufacturing Engineering

Radically Innovative Mechatronics and Advanced Control Systems
Dr R Harrison
£30,016 European Commission
£172,930 European Commission

ANGIONET - Interdisciplinary Angiogenesis Network
Prof D J Williams
£8,000 EPSRC via The University of Nottingham

Garment Test Rig
Dr M Caine, Dr A West and Dr T Waller
£19,135 EPSRC(IMRC)

Visiting Fellowship Award
Dr R Soar and Prof S Rothberg
£8,275 EPSRC(IMRC)

Enhancing Rapid Manufacturing within Loughborough University: Application Research and Modelling using 3D Printing
Dr R Soar and Prof A Gibb
£47,249 EPSRC(IMRC)

Equipment Award
Dr R Hague
£24,675 EPSRC(IMRC)

Coherent Microscopy: New Analysis Methods for High Resolution 3D Imaging (CMAM)
Dr J M Coupland
£115,338 European Commission

Innovation and Productivity Grand Challenge
Prof N Burns, Dr K Walsh and Prof C Backhouse
£545,653 EPSRC & ESRC via Imperial College of Science, Technology and Medicine

Automotive Transmission Rattle: Root Causes to Innovative Solutions
Prof H Rahnejat, Mr P King, Prof S J Rothberg and Dr S Theodossiadis
£202,584 EPSRC

Physics

Magnetic Quantum Oscillations in Nanowires
Prof A S Alexandrov
£160,724 EPSRC

ESF Exploratory Workshop - Mott's Physics in Nanowires and Quantum Dots
Prof A S Alexandrov
£9,624 European Science Foundation

School of Sport & Exercise Sciences

To Assess the Influence of Lucozade on Sport Participants
Prof C Williams
£61,854 GlaxoSmithKline Consumer Healthcare

Invest to Save Evaluation Project - Top-Up
Prof I Henry
£10,000 Leicestershire & Rutland Sport

Monitoring and Evaluation of Invest to Save Project
Prof I Henry
£40,000 English Sports Council

Cognitive Testing of Local Survey of Participation in Sport and Active Recreation in England
Dr F Bull
£15,000 English Sports Council

Delivery of quality PE and Sport for SEN pupils and young disabled people in mainstream secondary schools
Mr K Black and Dr M Nevill
£21,200 Youth Sport Trust

Social Sciences

Implementation of a Cost Calculator in the Local Authority Setting
Prof H Ward
£143,805 KTP/Coventry City Council

Slow Food and Cittaslow UK : Changing local lives?
Dr S Pink
£6,976 NUFFIELD FOUNDATION

WEDC

National peri urban water supply and sanitation policy dialogue
D J Lidonde RA, Dr S M Kayaga and Mr K R Sansom
£14,308 CARE International, Zambia

Combined departmental grants
Grand Challenge Grant "Immortal Information and Through-Life Knowledge Management"
Prof S A Austin (Civil & Building Engineering)

£361,066 EPSRC/ESRC via University of Bath
Mr M Sinclair and Mrs C Siemieniuch (Human Sciences)
£38,579.00 EPSRC(IMRC)
Dr R I Young and Dr J A Harding (Mechanical & Manufacturing Engineering)
£43,761.00 EPSRC(IMRC)
Prof S A Austin and Dr A Dainty (Civil & Building Engineering)
£86,296 EPSRC(IMRC)

Unified Modelling of Complex Systems - to facilitate ongoing organisation design and change
Prof R H Weston and Mrs Siemieniuch (Mechanical & Manufacturing Engineering)
£215,092 EPSRC
Mrs C Siemieniuch and Prof R H Weston (Electronic & Electrical Engineering)
£105,941.00 EPSRC

Loughborough researchers help spread the word about sci-fi construction

Being able to literally print yourself a new home or office seems like an idea plucked from a science fiction novel – but in fact the technology to create so called ‘freeform structures’ does exist.

A team of researchers at Loughborough University has launched a new project, entitled ArchiFORM, which is aimed at promoting the capabilities of freeform construction.

Freeform building techniques represent a new future for construction, which may eventually allow engineers to automatically fabricate entire buildings directly on site. Machines currently being developed around the world will literally print materials directly onto the construction area, building each layer to produce the finished structure.

The amazing advance this technology will bring to the industry is that no matter how complex a structure is there is no additional cost. In standard construction curves or intricate plasterwork, for example, are more expensive as they require more skill and time to create. With this new technology structures are built up in layers by a printer which makes no distinction between a straight line or a curve, and therefore it costs no more to build highly complex designs. This also means that service channels, such as air conditioning, could be ‘printed’ into a building during its construction.

Though building freeform structures is currently expensive and not practical for people wishing to build their own homes, it is important that those involved in the design and creation of buildings get to grips with these new and exciting techniques.

ArchiFORM is a joint project between the University’s Construction Research Group, based in the Department of Civil and Building Engineering, and the Rapid Manufacturing Research Group, based in the Wolfson School of Mechanical and Manufacturing Engineering. It will explore both laser scanning and rapid manufacturing techniques for architecture and construction.

Kemi Adeyeye, a member of the ArchiFORM research team, said: “Central to the project is the close collaboration with architects, engineers and construction manufacturers to identify how these technologies will impact and may be exploited by the industry.

“At a basic level the project will demonstrate the capabilities and flexibilities of digital scanning of existing structures or construction components so that new parts or features may be tailored exactly to that building’s form. This may be repairing damaged and rare plaster detail in heritage buildings or optimising whole pipe and plant room layouts for existing and new building projects.”

The ArchiFORM team want to locate additional construction sectors that will benefit from these technologies and is urging anyone interested in developing these techniques to get in touch by emailing Kemi at O.Adeyeye@lboro.ac.uk or calling 01509 222891.

For further details about freeform construction research at Loughborough visit <http://www.freeformconstruction.co.uk>

Job swap scheme a big success

This year imago Services and imago at Loughborough Ltd decided as part of staff’s personal development programme to introduce a job swap/job shadow programme.

It offered the opportunity to all staff to try another job for a day, either in their own work area or in a completely different role or location within imago. The offer was taken up by 55 staff and involved another 50 who were mentors for the day. Examples of some of the job swaps and shadowing that took place include:

Audrey Hoult, a hospitality assistant who cleans student bedrooms shadowed Director of imago Services, Malcolm Brown.

Annette Commons, a senior bar assistant shadowed Debbie Smyth, food and beverage operations manager.

Duncan Cressall, Operations Director, became a janitor, driving the buggy and removing rubbish.

The feedback from all who participated was incredibly positive. People found it very interesting to see what their colleagues and managers do on a daily basis.

To improve the scheme for next year some staff have asked if they could work in other University departments. If anyone outside imago is willing to join the scheme next year please contact Ellie Casey by calling 01509 222072 or emailing e.j.casey@lboro.ac.uk



Exciting new participatory research at CRSP

The University’s Centre for Research in Social Policy (CRSP) is conducting an innovative participatory research study with children on behalf of the Joseph Rowntree Foundation and supported by Save the Children.

The research involves talking to forty children, aged 8-13, from different backgrounds about their lives and aims to inform debates about the meanings of inequality, social exclusion and inclusion.

Unlike conventional research, it actively involves the children in the design and conduct of the research itself. It incorporates participatory methods such as photography, mapping and drawing.

The research began in April 2005 and is due to be completed by the end of April 2006.

LISU's annual statistical series ceases publication

The Library and Information Statistics Unit (LISU) has been forced to discontinue its Public Library Materials Fund and Budget Survey due to the withdrawal of financial support from the Museums, Libraries and Archives Council.

The issue covering 2004 to 2006 data, published in September 2005, will therefore be the end of a series, which has run for some 20 years and has provided invaluable management data on the materials budgets of public libraries.

The survey gave details of both the estimated and actual expenditure on various categories of materials by public library authorities in the UK as well as summary figures and commentary on trends. Changes in staffing levels and service points were also covered. As such it represented a valuable resource for policy makers, the library profession, the book trade, academics and the media.

LISU's Director, Dr Eric Davies, said: "The Public Library Materials Fund and Budget Survey represented a valuable tool for those concerned with the management and delivery of services, and it offered an objective and independent picture of what was going on. However, without funding to pay for its compilation we could not continue producing it."

However the Museums, Libraries and Archives Council has awarded LISU £135,800 to produce other statistical series and services in 2006.

Winning marketing strategies for businesses

Businesses across the East Midlands were invited to a 'Marketing for Success' workshop held at the campus in February.

The workshop was aimed at assisting companies to discover their ideal clients and customers and identify winning strategies for their business.

Presented by Alastair Morrison, a skilled business coach from Coach for Success Ltd, the afternoon workshop helped attendees detect where their own business is positioned in the marketing cycle and where to focus attention, including how to develop a marketing message to attract target customers.

The workshop was the latest in a series of monthly Loughborough Enterprise Club (LEC) events, the local business support network run by Loughborough University Enterprises Ltd (LUEL).

"Loughborough Enterprise Club offers local businesses an invaluable opportunity for networking and access to business support," says Emma Nadin of LUEL. "We encourage anyone starting up or growing an innovative business in the region to come along to our monthly events and benefit from the excellent support on offer."

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Business School urges companies to put their business ideas to the test

Companies are being urged to bring their latest ideas and technologies to the University, to enable their business potential to be assessed.

Using a cutting-edge technique developed in the US, students on the MBA programme will evaluate the potential of the technology or idea and suggest ways to aid its commercialisation.

The 'HiTech' programme has been brought to this country, and adapted for the MBA programme, by Loughborough staff, working in association with colleagues at North Carolina State University. At the programme's heart is a framework, or algorithm, that explores the interaction between technology, products and markets.

"This method of assessing business potential has been responsible for the creation of more than 250 jobs in existing companies and spin-out ventures in the US, which have attracted over \$120 million in venture capital.

"At this stage we are looking for unexploited ideas and/or technologies, or perhaps a technology that is already being exploited but not to its full capacity," explains Grahame Boocock, senior lecturer in the Business School. "The technology shouldn't be too 'blue sky' and there must be commercial applications. The ideal project would comprise a platform technology with high growth potential.

"The algorithm works best with B-to-B manufacturing technologies, although it can also be applied to service sector firms or those selling to the public."

Students on the MBA programme, who tend to be 'high fliers' in their 30s, will work in groups, each on a specific technology. Each group will consist of students with a mix of technology and business expertise.

At every stage of the exercise, the groups will be faced with critical decisions about how to develop the technology: a single technology might yield three to five products that can be offered across 10 to 15 markets. In some cases there might appear to be a clearly defined market and product for a given technology, but the algorithm allows the full potential of any idea to be assessed.

The groups then put together a portfolio that evaluates in depth the potential of a given technology and demonstrates the most appropriate way to commercialise that technology.

Grahame added: "The feedback from businesses that participated in the scheme last year was very positive. In every case, the technologists felt that the students added great value to existing business plans or forced them to question preconceived ideas about the way forward."

It should be stressed that the Intellectual Property of any technology or idea remains with the company and that all participants on the MBA programme sign Non-Disclosure Agreements.

If you would like to participate or want more information about the HiTec algorithm, please contact Grahame Boocock by calling 01509 223117, or emailing j.g.boocock@lboro.ac.uk

Punctuation gives a whole new meaning to winning

The Society for Editors and Proofreaders (SfEP) has announced that Dr Maureen Mclver, a Reader in Applied Mathematics at Loughborough, has won the nationwide challenge to write a 'Thank You' letter with a difference.

In association with the BBC News online magazine, the SfEP asked readers to compose a Christmas present thank you letter, then to change its meaning by altering the punctuation. Dr Mclver's winning entry read:

Happy New Year Richard my dearest husband,

And I would like to thank you for the beautiful painting. It is so unusual! For a man to buy such a thoughtful gift while on a working trip – what can I say?

I went to the Christmas sales with Kathy, and we also went to the pantomime with Barbara. At college it is quiet, with many staff away skiing. There is a lot to do before your return.

I recommend that you try and see the new release of that film from Russia.

*With love,
Natasha.*

Happy New Year Richard,

My dearest husband and I would like to thank you for the beautiful painting. It is so unusual for a man to buy such a thoughtful gift.

While on a working trip (what can I say?!) I went to the Christmas sales with Kathy and we also went to the pantomime! With Barbara at college, it is quiet. With many staff away skiing, there is a lot to do.

Before you return, I recommend that you try and see the new release of that film, 'From Russia with love'.

Natasha

Dr Mclver's entry was one of over two hundred sent to the BBC site between Christmas and mid January – making judging a formidable task.

Penny Williams, Chair of the SfEP, said: "There was an excellent response to the competition and it was difficult to pick a winner. From a shortlist of 13, this one stood out. It's short, clever and well constructed, and both versions sound good when read aloud."

Dr Mclver spotted the competition and decided to have a go. She said: "It was not as easy as I thought and took the best part of a day to compose. I have always believed that we should use language effectively, and I stress this to my students, especially when they need to explain mathematical concepts. It has been interesting to learn more about the work of the Society including their role in proofreading technical mathematical texts."

Maureen wins a copy of the Oxford Dictionary of English, published by Oxford University Press (OUP).

University delighted at Panesar's England call

Loughborough's cricket coaches have welcomed the selection of 2005 graduate Monty Panesar into the full England cricket squad to tour India for the upcoming Test series.

Panesar has been a recognisable figure at the University for the last four years, both as a student and with a year at the campus-based England National Academy squad.

Director of Cricket Guy Jackson said: "This is just the type of recognition that the University-based Cricket Centres of Excellence (UCCE) programme needs. Both Alex Loudon who graduated from Durham University and went on the Pakistan tour and now Monty Panesar from Loughborough University completed their degrees and benefited from the facilities, coaching and other support at university before returning to their County Clubs and had highly successful playing seasons.

"The UCCEs are designed to prevent aspiring cricket professionals having to choose between a sporting career and continuing in education to the highest level. Monty is a great example of someone with determination, and good support from both his County Club and the University Centre, making it to the top in the sport, without foregoing qualifications, which are imperative if players' careers don't develop."

Panesar came to Loughborough University in 2001-2002 to study Computing and Management, and to be a part of the Loughborough Cricket Centre of Excellence. He was already known to be a highly talented young cricketer, with much press interest in a young Sikh looking capable of one day playing for England. Having played for England Under 19s, Monty continued to develop as a player at the University under the watchful eye of Loughborough's Head Cricket Coach, the ex England Test bowler Graham Dilley.

He made his First Class debut for Northants in 2001, taking eight wickets in the match. Panesar looked at his best when playing against good sides and particularly in the University's County 1st team matches. Panesar took four wickets in his first County match for Loughborough against Kent, and was regularly a leading wicket taker for Loughborough. He was also selected for British Universities against the touring Test teams.

Monty's career looked set to continue on an upward track, with selection for the England National Academy under Rod Marsh in 2003-2004. But after a year with the National Academy and a relatively disappointing County season, Panesar returned to the University to complete his final year. The summer of 2005 proved



spectacularly successful, with Loughborough achieving a clean sweep of all the University championships, Monty successfully completing his degree, and on returning to Northants he took a prodigious 46 wickets in just eight County Championship matches, catching the eye of both press and selectors.

Loughborough Coach Graham Dilley has always pushed Panesar. "No one works harder than Monty on his bowling, but we did have to encourage him to work on the weaker parts of his game that didn't come as naturally," says Dilley.

"Much has been made of the weaknesses in his batting and ground fielding – and we've made him work hard on those – and he acknowledges that he has to. He responded particularly well in the last year when a new coaching regime at Northants made him look more critically at his own game. Through the winter he worked hard both at Northampton and Loughborough. It's credit to Monty that he also made time to complete his degree – which was not always easy. We wish him well in this next phase in his career."

Panesar now joins the full England squad, which will again do much of their pre-tour preparation work at Loughborough at the National Cricket Centre on campus. From there Monty proceeds to the land of his roots for a daunting debut tour – but proud to be the first Sikh to be picked for England.

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Loughborough gear up for showdown with Bath in second 'Real' Varsity Match

The UK's two great university sporting rivals, Loughborough and Bath, will go head to head on Friday March 17, for the second annual 'Real' Varsity Rugby Match.

The event, one of the newest fixtures on the British sporting calendar, was established last year to broaden awareness of university rugby and show just how high the standards of university sport are.

The inaugural match, held in Bath last February, saw Loughborough secure a 21-7 victory in an entertaining encounter – a result which Loughborough's Director of Rugby, Alan Buzza, is confident his side can repeat.

"The 'Real' varsity match will be a huge game and an excellent marker as to who will be favourites for the BUSA Championship this year. We will enter as favourites but one of the hallmarks of university rugby is its constantly changing personnel and last year will count for nothing," Alan said.

"However I am confident that the Loughborough squad will once again be victorious, and a win on home soil would be brilliant, both for the players and the fans."

The sporting legacy of both Loughborough and Bath universities is second to none. Many former students have gone on to play for, coach and even manage the national team. Loughborough also has a formal coaching arrangement with Northampton Saints and Bath houses the RFU Academy.

Dr Guy Jackson, Director of Sports Marketing said: "The University is excited about hosting this year's 'Real' Varsity Match and we are hoping staff and students will come along to support the home side.

"Tickets are already on sale and Sky TV are lined up to screen highlights for their 'Rugby Room' programme. With a ground capacity of 2,000 we're expecting a sell out for what promises to be a thrilling match."

Tickets for the match – priced £5 for adults and £3 for students/concessions – are on sale now, available from all Loughborough University sports facility receptions or by calling 01509 226250 or 01509 226200. It will take place on campus at the First XV Rugby Pitch. Gates open at 5.30pm, with kick-off at 7pm.

