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Lightning strikes at Loughborough University

Lightning struck at Loughborough University in October when the region's newest netball team, Loughborough Lightning, played their first home game in the new England Netball Superleague.

The 15-strong Loughborough Lightning squad includes four members of the current senior England squad – Olivia Murphy (the current England captain), Karen Atkinson, Jade Clarke and Ama Agbeze. Four of the players – Sarah Penny, Becky James, Gemma Wiseman and Jade Clarke – are Loughborough University students.

So far the side look set to make the play-off finals in April and are one of the favourites for the Championship. Having played four matches they currently lie third in the table with a narrow (47-44) defeat to Bath, who are currently top of the table, and large margin victories over Team Northumbria (75-31), Mavericks (51-28) and Leeds Met Carnegie (64-19).

The Superleague, sponsored by Figleaves.com, is England Netball's premier domestic competition in the UK. Featuring eight teams, it will provide the sort of intense, competitive atmosphere week-in week-out that will help England's elite players to prepare for the demands of major international competition and further England's aim to be the leading netball nation in the world.

The next Loughborough Lightning home matches are against Celtic Dragons at 5pm on Saturday 10 December and Brunel Hurricanes at 8pm on Friday 6 January.

Tickets for these matches and all home games are available in advance on the ticket hotline, 01509 226250, or on the day from the Netball Badminton Centre, based on the campus.

Prices are £5 for adults, £3 for concessions (OAPs, students and under 16s) and £13 for families (2 adults and 2 children).



Loughborough swimmer named Student Sportswoman of the Year

University swimmer Caitlin McClatchey has won this year's Sunday Times Student Sportswoman of the Year award.

Following the announcement in November at a dinner at Old Billingsgate Market, London, Caitlin said: "I feel very honoured to be given the Sunday Times Student Sportswoman of the Year award, especially when there was such a strong and talented field of other students.

"I am very grateful to my coach Ben Tittley for all the hours and support he's given me. I'd like to thank everyone at Loughborough University, in particular David Allen, head of the department of Politics, International Relations and European Studies, and Ian Armiger, the director of swimming, for helping me to combine my studies and my swimming. I'd also like to thank the squad I train with for all their support and encouragement."

Caitlin (19) is the 400m Freestyle British record holder and is ranked in the top three in the world. She took Britain's first medal – bronze in the 400m Freestyle – on the opening day of the World Swimming Championships in Montreal in July this year, and was also part of Britain's fifth-placed 4x200m Freestyle relay team at the Athens Olympics.

She is in her second year studying for a Politics degree.

The Sunday Times Sportswomen of the Year awards celebrate the immense contribution made by women to British sporting life.

World leading role in social policy wins Loughborough its fifth Queen's Anniversary Prize

Loughborough University has been awarded a Queen's Anniversary Prize for Higher and Further Education 2004.

It is the fifth time the University has captured one of the prestigious awards – an achievement equalled only by Oxford.

The Queen's Anniversary Prizes for Higher and Further Education are awarded biennially in recognition of outstanding educational achievement in areas of service and benefit to the nation. The 2004 Prize has been awarded to Loughborough in recognition of its outstanding and widely respected work in evaluating and helping develop social policy-related programmes, such as those for cared for children, social security policy, crime prevention, education initiatives and young carers.

Concentrated within the Department of Social Sciences, the University's social policy related research is held in high regard, both by its peers for its intellectual value and by its beneficiaries at all levels.

The excellence of the research work undertaken has been independently verified, and this high quality is achieved in all three aspects of the work – intellectual enquiry, the development of new methodologies, and the application of findings.

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.

"We are thrilled at this recognition for our research in social policy," said Professor Peter Golding, Head of the Department of Social Sciences. "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."



The Thrive project, which examined the benefits of horticulture as a tool for improving the quality of life of older, disabled and other vulnerable people, is just one example of the areas of research the Department of Social Sciences is involved in.

Partnership goes from strength to strength

The partnership between Loughborough University and the Ministry of Defence (MOD) is continuing to flourish.

More than 35 new students have joined the University-based MOD Defence Technical Undergraduate Scheme (DTUS). The University was selected to take part in the DTUS in 2004.

The scheme was set up by the MOD to support sponsored students studying for engineering and science degrees, all of whom are committed to become officers in one of the services (Army, Royal Navy, Royal Air Force, Civil Service).

Loughborough is one of only five universities in the UK to be a part of the DTUS, with each having its own squadron for students to join.

Thirty-seven cadets have joined Loughborough's Typhoon Squadron, where they will be mentored throughout their academic study to help them develop the skills and attributes they will need to fulfil their long-term commitment to the services.

In return for its support, the MOD will recruit high quality qualified engineers, who are ready to assist the military in its work across the world.

Wing Commander Keith Pearce, who is based at the University and is responsible for its DTUS students, said: "When the Typhoon Squadron was first established at Loughborough in 2004 we had two students - this academic year we have 37. The partnership between the DTUS and the University is going from strength to strength and looks set to attract more students every year."

Pictured in 2004 at the signing of a Memorandum of Understanding between the University and the MOD, marking the start of the DTUS at Loughborough, is Vice Chancellor Professor Sir David Wallace and Major General Robert Baxter.



Queen's Anniversary Prize

Continued from page 1.

Loughborough has been outstandingly successful in the Queen's Anniversary Prizes scheme:

- 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
- In 2000 Loughborough gained its third award, 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 followed 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.

Her Majesty The Queen will make the official presentation of the 2004 Prize at a special ceremony at Buckingham Palace in February 2006.

University thanks long serving staff

In October 32 members of University staff were presented with a certificate by the Vice Chancellor, Professor Sir David Wallace, to mark 25 years' service. Each person was also invited to choose a gift to the value of £150.

The presentation ceremony is an annual event and this year's list of recipients is as follows:

- Richard Newbold** – Business Partnerships and Knowledge Transfer
- Professor Malcolm King** – Business School
- Dr Raymond Barton** and **Dr Paul Lucas** – Chemistry
- Mark Harrod** – Civil and Building Engineering
- Dr Helmut Bez** – Computer Science
- Sue Johnson** and **Professor Mark Porter** – Design and Technology
- Lorraine Whittington** – Economics
- William Gabb** and **Cheryl Heath** – Electronic and Electrical Engineering
- Hugh Axten, Joan Hancox, Linda Peachey, Martin Stringfellow, Roy South, Sharon Taylor** and **Geoffrey Whitt** – Estates Services
- Filomena Palmieri** and **Christine York** – Imago Services
- Michael Hallam** and **Raymond Owens** – Institute of Polymer Technology and Materials Engineering
- Nicholas Aikman, Peter Beacham** and **Raffaella Dewing** – School of Art and Design
- Hazel Naylor** and **Professor Clive Pugh** – Mathematical Sciences
- Dr Anne Mumford** – Media Services
- Joyce Bartlett, Jenny Clark, Susan Mee** and **Marion Shields** – University Library



Adam Hart-Davis signs copies of his new book, 'Why does a ball bounce?' following his successful lecture.

Full house for Hart-Davis

A guest lecture by the well-known TV and radio presenter, Adam Hart-Davis attracted a massive crowd in November.

Entitled 'Visions of Science', the lecture illustrated how photography can make us think differently about science and also help scientists in their research.

When he is not presenting science programmes Adam Hart-Davis spends his time taking photographs of bouncing balls, burrowing beans, and bursting balloons. At the lecture he used his own photographs to demonstrate how some scientific snapshots can be taken and how they can provide answers to scientific questions.

He also used stunning images from the Novartis/Daily Telegraph Visions of Science photographic awards, to show how beauty can be found in even the most horrible subjects, such as dividing cancer cells and the mites that feed on the dead skin around your eyelashes.

The event was organised by the University's Faculty of Science as part of a series of lectures aimed at promoting science to the wider community.

Distinguished Chinese figures honoured by University

Professor Lu Yongxiang, Vice Chairman of the National People's Congress and President of the Chinese Academy of Sciences, has been awarded an honorary degree by Loughborough University at a special ceremony held in Shanghai, China, earlier this year.

The award – Honorary Doctor of Science – was bestowed on Professor Lu in recognition of his remarkable achievements in science and engineering and his outstanding contribution to science and technology development in China.

More than 50 people, including representatives from Loughborough University, the Chinese Academy of Sciences and Shanghai Jiaotong

University, together with friends and relatives of Professor Lu, were present at the ceremony.

After accepting his honorary degree, Professor Lu said in his speech: "The pride in being awarded an honorary doctorate from Loughborough University, does not belong to me alone, but also to my family and colleagues in both China and abroad, who have constantly supported my scientific, educational and managerial work throughout the times."

Professor Lu also praised Loughborough for its continuous and esteemed cooperation with Chinese academia, having educated hundreds of Chinese students. "I look forward to a growing collaboration between China and the UK in education, research, science and technology, with the aim of boosting mutual benefits, scientific and knowledge innovation, fostering talents, and making a bigger contribution to the development in China and UK and the advancement of our human civilisations," he said.

Loughborough's Vice Chancellor, Professor Sir David Wallace, who is also vice president of the Royal Society, has been actively involved with the promotion of Sino-UK cooperation in science and technology in the past.

His presence in Shanghai to chair Professor Lu's graduation ceremony has shown Chinese Academy of Sciences to be one of the University's most important partners.

Other recipients of honorary degrees in China were Mr Li Ning, an Olympic gymnast and founder of Li Ning Sports, and Mr Tan Eng Yoon, a graduate of Loughborough University (1958), former track and field athlete and former Deputy Director of the Singapore Sports Council. Both were presented with the award of Honorary Doctor of Technology.

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University says fond farewell to Sir David

The end of the calendar year will bring a major change for Loughborough University when we say goodbye to our longest serving Vice Chancellor, Professor Sir David Wallace.

Sir David joined the University in 1994 and under his leadership and guidance the University has not only physically expanded, but its reputation has been significantly enhanced.

It is impossible to mention everything that Loughborough University has achieved during Sir David's time at the campus, but below are some of the highlights and milestones in the University's development which have taken place over the last 11 years:

Achieving recognition for the University's strengths

- Since 1994 the University has won an unbeaten five Queen's Anniversary Prizes, the latest of which was announced this November.
- In September 2005 Loughborough was ranked equal first for overall satisfaction among its full-time students in the National Student Survey.
- In May 2004 Loughborough got its first ever top ten ranking in the Times newspaper league tables.

Developing the campus

- In 2003 the University seized a crucial opportunity to expand the campus with the purchase of Holywell Park from Advantica Technologies Ltd. This has made Loughborough one of the largest campuses in the UK with 165-hectares of land.
- In 1998 the University merged with Loughborough College of Art and Design to become LUSAD, which itself has grown in stature.
- Since 1994 many new buildings have been created on campus, including premises for the Business School and Economics, the Wolfson School, the Department of Aeronautical and Automotive Engineering and the Henry Ford College.

Sir David is pictured at Buckingham Palace receiving the University's 2002 Queen's Anniversary Prize. *BCA Films*



Driving the research agenda

- The University's research profile has continued to rise in both the 1996 and 2001 Research Assessment Exercises (RAE). In addition to eleven '5 grade' awards in 2001, the University was awarded the top '5* grade' for work in Built Environment, Sports Science and Social Sciences.
- There has been a rapid growth in external funding for research, research partnerships and links with business and industry.
- Loughborough has been awarded the highest level of funding per grant, of any UK university, by the Engineering and Physical Sciences Research Council.

Maintaining outstanding Teaching Quality

- The quality of teaching at Loughborough continues to be of the very highest standard. This has been verified by exceptionally high scores awarded under the Government's independent assessment scheme, which have consistently put the University towards the very top of the Teaching Quality league tables.
- In the 2005 Sunday Times University Guide Loughborough came second only to Cambridge in its teaching assessments.

Leading the field in sport

- Loughborough remains the country's premier university for sports development, research and training.
- The University has the largest sports scholarship programme in the UK and more than 250 international level athletes are currently studying and training at the campus. To show his support for the scholarship programme in 1995 Sir David ran the London Marathon, raising £8,000 for the Loughborough Sports Scholars and the Sports Aid Foundation.
- The University has recently completed more than £30 million of investment in state-of-the-art sports facilities as part of the English Institute of Sport.

Personal recognition

- Sir David was awarded a CBE for services to parallel computing in 1996, and was knighted in 2004 for services to UK science, technology and engineering.
- He is Treasurer and Vice President of the Royal Society, immediate past President of the Institute of Physics and a fellow of the Royal Academy of Engineering.
- He is Chair of the UK e-Science Steering Committee, and a Deputy Lieutenant of Leicestershire.

Speaking about Sir David's time at the University Bursar Michael Pearson said: "His commitment to Loughborough University has been remarkable; visitors will tell you that he has rarely missed a chance to promote it, whatever the occasion.

"Sir David's commitment to staff and students, his enthusiasm, and the sheer pleasure he obviously took in their success was notable. His legacy can be seen in Loughborough's status at a level beyond even our own expectations."

Sir David's term of office ends on December 31. In September next year he will take on the role of Director of the Isaac Newton Institute in Cambridge, as well as becoming Master of the University's Churchill College.

All at the University wish Sir David and Lady Wallace the very best for the future.

Opportunity to view the VC's portrait

Staff across the campus are invited to a special viewing of the Vice Chancellor's portrait on Monday 20 December.

The portrait will be officially unveiled by Sir John Jennings on 19 December at a dinner which is being held in honour of Sir David Wallace. The following day staff are invited to go and see the painting between 3pm and 5pm in the new atrium area of the Edward Herbert Building. Tea and mince pies will be available for those attending.

Staff wishing to view the portrait are asked to notify Val Onsworth by emailing V.P.Onsworth@lboro.ac.uk or calling 01509 222223 by Monday 12 December.

Some staff have asked if there is a collection to mark the Vice Chancellor's leaving. There will not be a collection, but a special appeal for student support has been initiated to mark the end of Sir David's time in office. Details are at <https://internal.lboro.ac.uk/admin/devoffice/univide/appeal.html> Contributions to this fund would be welcome.



Auditors rubber stamp Loughborough's new brand

The quality management team at imago have been celebrating the news that the organisation's ISO 9001:2000 accreditation, held since 1999, has been reaccredited.

"Although the whole of imago was under assessment, the external auditors, NQA, focussed in on two distinctly different areas," explained Janet Ireland, imago's customer services manager.

These two areas consisted of Loughborough's conference centre, imago@ Burleigh Court, undergoing an expansion programme that would lead to an additional 90 plus bed spaces, and the imago Services Edward Herbert Building (EHB). This is the main catering facility on central campus, which has been newly refurbished and rebranded in a £2 million investment.

Burleigh Court's nominated quality representative, Angela Lannucci, in conjunction with Janet Ireland and imago's quality coordinator Linda Moulton, were the trio required to get imago@ Burleigh Court ready for assessment. Having spent a day and-a-half at the venue, lead auditor, Steve Hillyer was glowing in his recommendation. In it he said: "Your system is strong and well managed, we find it hard to make recommendations of how to improve further. In fact, we use examples from Loughborough to help others with their processes."

Janet added: "ISO 9001:2000 is all about showing you are providing a quality service. Putting procedures together that focus on continual improvement and evidencing that customer feedback is being used to improve the service. Customer feedback is integral to everything we do. From an annual mystery customer programme, launched at the start of term, to a 'What do you think' focus groups with individual customers."

Arts and dispersed communities in the East Midlands

The Arts and Humanities Research Council (AHRC) has awarded Maggie O'Neill from the Department of Social Sciences and Phil Hubbard from the Department of Geography more than £20,000 for 'Making the Connections', a regional network to examine the role of arts and culture in fostering integration and belonging for new arrivals in the East Midlands.

This innovative, cross-departmental initiative comes under the AHRC Diasporas, Migration and Identities Programme.

The network will build upon the strong regional work of the Arts Council East Midlands, academics in regional universities, practitioners and policy makers in the arts, public and voluntary sector and dispersed communities.

It will address questions of artistic access and cultural inclusion in the search for new strategies of participation that will enhance the lives of recent arrivals in the East Midlands; stimulate high quality interdisciplinary research drawing upon the rich resources and expertise in the region; feed into public policy; and contribute to public awareness of issues facing new arrivals.

The launch of the network will take place in April 2006. Speakers will include representatives from the regional consortium for asylum seekers and refugees, the new arrival regional integration strategy and the regional work of the Arts Council East Midlands. There will also be presentations by those working across the region in the field of diaspora, migration and identity.



Loughborough engineers make major breakthrough in mobile phone health monitoring

A unique system which uses a mobile phone to transmit a person's vital signs, including the complex ECG heart signal, to a hospital or clinic anywhere in the world has been developed at Loughborough University.

Created by Professor Bryan Woodward and Dr Fadlee Rasid from the Department of Electronic and Electrical Engineering, the system enables a doctor to observe remotely up to four different medical signals from a freely moving patient. Signals that can be transmitted include the ECG, blood pressure, oxygen saturation and body temperature. The technology marks an important advance in telemedicine and is thought to be a world first.

Talking about the invention, Professor Woodward said: "The idea of using mobile phone technology is that a doctor can monitor a patient who can be literally anywhere, perhaps hundreds or even thousands of miles away, and they can speak to each other at the same time. It could be used for a number of medical purposes, such as remote routine check-ups, as well as in emergency and rescue situations and to gather sports science physiological data."

When the new system is fully developed its main use will be in healthcare, where the technology could improve the quality of life of patients, particularly for those undergoing post-operative care or living remotely from a hospital. It will allow medical services to be delivered to any location within the coverage of cellular networks. A patient from a rural area can be given a check-up by mobile phone without having to commute regularly to a hospital. Routine inspections and monitoring could be done while the patient is

at home, travelling, at work or at leisure, thereby relieving resources for more demanding hospital cases.

At Loughborough University, the country's premier university for sports development, research and training, the system will also be used in the area of sport and exercise science. In the build-up to the 2012 Olympics the technology would allow coaches and physiologists to monitor the performance of athletes remotely while they are training, and the data could be stored for later analysis.

A working prototype of the system has now been tested successfully under realistic conditions. For the tests small sensors were attached to a person's wrist and they were given a mobile phone and processor. They were then instructed to continue with their normal daily routine, which included driving along the motorway. The tests showed that heart data and other vital signs can be transmitted from a mobile phone in real time and received error-free on a computer many miles away. The next challenge is to miniaturise the processor and phone so that the patient - or athlete - carries a unit no bigger than a credit card.

Professor Woodward added: "The most important aspect of the system is the integrity of the signal. A cardiologist needs to see a heart signal exactly as if it had come directly off the patient's chest. Fortunately we can reproduce signals very accurately. The only limitations appear to be the temporary loss of mobile phone signal when going through a tunnel or other areas not covered by a mobile network."



Helping in the fight against breast cancer

A unique scheme developed by a Loughborough University scientist to help radiologists improve their detection of breast cancer has taken another step forward.

Professor Alastair Gale set up the Personal Performance in Mammographic Screening System (PERFORMS) in the early 1990s whilst at Nottingham University, working alongside the NHS Breast Screening Programme. PERFORMS is a self-assessment scheme for individuals involved in interpreting breast screening mammograms (X-rays of the breast) and assists them in topping up and improving their breast cancer detection skills.

It is the only system of its kind in the world and helps UK breast screeners detect very early signs of cancer - thereby helping to save hundreds of women's lives each year.

Professor Gale and his team, who are now based at the University's Ergonomics and Safety Research Institute (ESRI), collect some of the most challenging breast X-rays from across the country which are then sent out to radiologists twice a year. The PERFORMS scheme enables those carrying out screening to gain more detailed experience of detecting very early signs of breast cancer as well as difficult cancer appearances. They then receive detailed feedback about how they perform, which enables them to see what their strengths are.

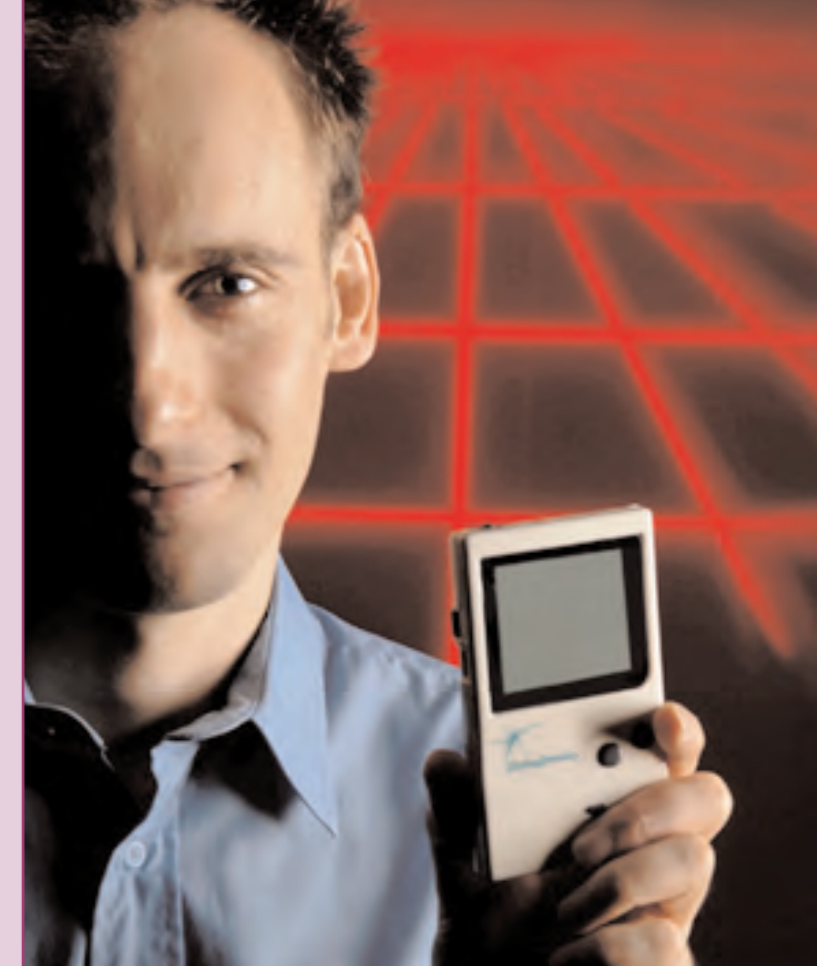
The data collected from the PERFORMS system is used by Professor Gale and his researchers to study the behaviour of film readers so as to develop improved training for radiologists.

Previously the radiologists taking part in the scheme would be sent a pack that included copies of X-ray films and a computerised bar-coded self-assessment form and scanning device. The candidate would then spend on average two hours reading the films and recording their responses on the specially designed form and software. Now Professor Gale has developed a more high-tech system, which makes it easier and quicker for the radiologists to use.

Professor Gale explains: "The previous system, although effective, was quite complicated and involved participants making their decisions from the X-rays and then inputting this into a computer using a barcode system. An answer would be selected from the self-assessment sheet and the corresponding barcode would be scanned in.

"Now we are able to send out fully computerised packs where as well as having the actual X-rays, the mammograms can also be displayed on the tablet computer screen. Simply by touching the screen the radiologists can make their decisions about a case, we are able to record more complex information and the data they give is stored for later analysis and subsequent feedback to the participants."

Julietta Patnick, Director of the NHS Breast Screening Programme, added: "PERFORMS has already proved effective in supporting radiologists working within the breast screening programme refine their interpretation skills. It is encouraging to see the system has developed further, bringing additional benefits to staff and making it easier for them to access world class professional support."



Vincent Crabtree, Inventor of PADD.

Seeing under the skin

A revolutionary handheld body scanner that shines light into the skin to detect the early signs of heart disease and stroke has been developed by a Loughborough engineer.

The painless test takes no more than five minutes to detect Peripheral Vascular Disease (PVD), a condition that affects over 90 million people worldwide. What starts off as blood flow problems in the feet can develop fatal consequences if left unchecked. Once diagnosed, one in three people die within five years. But many deaths are preventable through early diagnosis, which is the aim of Dr Vincent Crabtree's invention, PADD.

Crabtree, an optical engineer from Loughborough University, was inspired by the plight of his grandfather who died at 55 after having his leg amputated due to PVD. PADD represents a futuristic way to check out circulatory health that uses an infrared light beam no more powerful than a TV remote control. Quick and simple to use, this state of the art technology could replace the ankle brachial pressure index, a traditional pressure cuff measurement system.

"Current screening is time-consuming and requires skilled operators. It is also particularly unreliable on diabetics, who are extremely susceptible to PVD," Crabtree explains. "PADD does not require any specialist training; it's easy and safe to use and will be ideal for busy vascular clinics and GP surgeries."

An infra red probe is held to the foot for a couple of minutes to assess how well the blood supply adapts to forces of gravity caused by postural changes such as getting out of bed and standing up. The prototype technology is now undergoing a large clinical study at the Royal Free Hospital, London. PADD is expected to have regulatory approval in Europe and America within two years.

Research grants and contracts

Research grants and contracts, of over £12,000, awarded in September and October

Aeronautical & Automotive Engineering

Steering Gain Evaluation using a Low Cost Driving Simulator
Dr M C Best
£43,908 Jaguar Cars Ltd

Unsteady Fluid Mechanics of Multiple Annular Swirling Shear Layers
Dr A Spencer
£59,464 EPSRC

Unsteady Fluid Mechanics of Multiple Annular Swirling Shear Layers
Dr A Spencer
£30,000 Rolls-Royce plc.

Support for EPSRC Darps 2002 Proposal
Prof J J McGuirk
£17,425 BAE Systems

Business School

Risk and the Design Engineer: Individual and Cognitive Factors' Influence on Safety Performance
Prof K J Daniels and Dr A Cheyne
£209,807 EPSRC

Daily Learning, Job Design and Problem Solving in SME's
Prof K J Daniels, Dr J Holland and Mr G Boocock
£21,500 Leicestershire Economic Partnership

Chemical Engineering

Application to Host a Visiting Researcher to Collaborate on Biocompatible Adsorbents for Blood Purification
(Visit: Prof A W Trochimczuk)
Dr D J Malik
£17,212 EPSRC

Chemistry

Improved Oilfield Batteries
Prof S Fletcher
£30,000 Schlumberger Oilfield UK Plc

Civil & Building Engineering

Building the Brand
Prof A Gibb and Prof S Austin
£77,955 EPSRC(IMRC)

Sustained Competiveness
Prof S A Austin, Dr A Dainty, Prof A D Price and Prof A J Thorpe
£170,000 EPSRC(IMRC)

Energy from food waste - John Shelton-Smith Studentship
Prof A Wheatley
£45,000 Unilever Bestfoods UK

Computer Sciences

Analysis and Diagnosis of Re-Configurable Systems using Model-Based and Approximate Reasoning
Prof P Chung and Dr C Hinde
£59,464 EPSRC CTA

Analysis and Diagnosis of Re-Configurable Systems using Model-Based and Approximate Reasoning
Prof P Chung and Dr C Hinde
£22,500 BAE Systems

Design & Technology

Sustainable Design Awards - Contract Extension
Dr E Norman
£25,000 Intermediate Tech. Dev. Group, The Schumacher Centre for Tech & Dev. (Practical Action)

Electronic & Electrical Engineering

Integrated Modular Processing System for High Integrity, High Performance Control
Prof R M Goodall and Dr R Dixon
£81,964 EPSRC/Industrial Case/BAE Systems

Kalman Filters for FCS Flexibility Enhancement (Award Increase)
Prof R M Goodall
£21,000 BAE Systems

ESRI

Patrol System Specification Study - Phase 2
Mrs T Ross and Mr A May
£17,000 RAC Motoring Services

Geography

The Globalization of the Executive Search Industry in Europe
Prof J Beaverstock and Dr S Hall
£46,142 ESRC

Human Sciences

A Staged Approach to Improving Occupational Health and Safety in the Workplace
Prof C Haslam and Prof R Haslam
£89,888 H & SE

Risk Assessment and Process Planning for Barbiatric Patient Handling Pathways
Dr S Hignett and Dr P Griffiths
£69,065 H & SE

IPTME

Cork Synthetic Composites : Processing and Product Properties - Phase 2

Mr B Haworth
£35,400 Amorim & Irmaos, S.A. Portugal

Oxidation Resistant Coatings for Industrial Gas Turbine Blades
Prof R C Thomson
£30,000 RWE npower plc

LUSAD

Exploiting computer aided design and manufacture to expand Donald Judd's sculptural concept: specific objects
(Mr. Michael Shaw Fellowship)
Dr C Edwards and Mr D Archer
£141,800 AHRC

Mathematical Sciences

Mathematical Modelling of Nonlinear Waves in Layered Elastic Waveguides with Inhomogeneities
Dr K Khusnutdinova
£121,689 EPSRC

Multi-dimensional dispersionless integrable systems: classification, differential geometry, solutions
Dr E V Ferapontov
£180,939 EPSRC

Mechanical & Manufacturing Engineering

Mechatronic Integration of Design and Simulation
Prof R Parkin and Dr M Jackson
£60,222 EPSRC(IMRC)

Investigation of Process Parameters for Multi-resolution Bulk Aggregation Freeform Construction Machine
Dr R C Soar, Dr R A Harris, Prof A Gibb and Prof A Thorpe
£90,273 EPSRC(IMRC)

Super Computer Nod
Dr R J M Hague
£24,675 EPSRC(IMRC)

Micro Manufacturing
Prof P Conway, Dr J Coupland, Dr J Petzing and Dr D Hutt
£305,000 EPSRC(IMRC)

Immortal Information
Dr R M Young and Dr J A Harding and Mr M A Sinclair
£168,636 EPSRC(IMRC)

SMART Bowler
Dr A A West and Dr R Harrison
£84,673 EPSRC(IMRC)

Equipment Grant
Prof P P Conway
£41,500 EPSRC(IMRC)

Innovation and Productivity
Dr K Walsh, Prof N Burns and Prof C J Backhouse
£45,000 EPSRC(IMRC)

Integration of electrical functionality in mechanical structures for land and air transport
Prof P Conway and Dr D Whalley
£54,652 EPSRC(IMRC)

Multi Objective Optimisation & Materials Analysis for Rapid Manufacturing
Dr R Hague and Dr C Tuck
£131,669 EPSRC(IMRC)

Generation of Conformal 3D Data for RM Smart/High Performance
Dr R Hague
£75,654 EPSRC(IMRC)

Develop an Integrated Business Management System
Dr S T Newman and Dr S Dani
£100,994 KTP/Guttridge Services Ltd

Stepping Up Economical and Technology Intelligence in Sport (Innosport)
Dr M P Caine
£62,241 European Commission

Research Studentship"Modelling and Optimisation of the through-air bonding process for energy efficiency gains and improved capacity"
Dr M Acar
£75,000 Colbond bv, Holland

Mixing and Segregation in Polydisperse Granular Flows
Dr R D Wildman
£45,161 EPSRC

Development and Implementation of a Decision Support System and Strategy
Dr S Rahimifard
£133,446 KTC/Rolls-Royce

School of Sport & Exercise Sciences

Great Fun 2 Run Evaluation
Dr P J Gorely, Dr M E Nevill, Dr D Stensel, Prof S J H Biddle and Mr J Morris
£150,239 Nova Int. Ltd

Dark Chocolate & Exercise Study
Prof M Gleeson and Mr G Davison
£37,850 Nestec Ltd

WEDC

Dissemination of Improved Water Utility Management
Dr C Njiru
£31,259 SIDA c/o Severn Trent Water Int. Ltd., U.K.

Emergency Sanitation Project
Mr P A Harvey
£17,265 World Vision International



Pat Stone and his daughter Karen White.

University Medal awarded

Pat Stone, a retired member of academic staff from the former Department of Physical Education, Sports Science and Recreation Management (now the School of Sport and Exercise Sciences), was presented with the University Medal in November.

The award was given to him by the Vice Chancellor, Professor Sir David Wallace, at a small ceremony attended by Pat's daughter, Karen White, and his friend and colleague David Bunker.

Pat's contribution to the development of sport at Loughborough is already appropriately recognised in the overall Intra-mural Championship Cup - the Pat Stone Trophy. However, the University Medal was awarded to Pat for much more than this and is recognition of his all-round outstanding service to the University.

Pat was a totally committed member of academic staff to the department and the University. He taught Biomechanics and was also the departmental health and safety officer for a number of years. Under his leadership the University developed one of the most extensive recreation programmes in the country, not least through the intra-mural programmes. Pat thoroughly deserves the award of the University Medal and all who knew him are delighted that he has accepted it.

Paving the way for a more sustainable future

University researchers have been awarded £1.3 million to help investigate how hydrogen gas can be used to provide sustainable power for Europe.

Staff in the Department of Chemical Engineering are using their expertise in the area of safety and loss prevention to lead part of the Naturalhy study - a major European Commission funded integrated project.

The objectives of the research are to examine all the aspects of a pipeline system for the movement of hydrogen by adding it to natural gas in existing networks. This approach will facilitate a transition to the hydrogen-based economy to commence in earnest.

The use of hydrogen as an energy carrier is considered to be an essential element for global sustainable development. However, there are many significant challenges for implementing all the components of a complete energy system based on hydrogen.

A European consortium of 39 partners, including 15 from the gas industry, has been assembled to work on this challenging project. The consortium features major network operators, hydrogen producers, specialist practitioners and academic researchers in all the relevant fields.

The role of Loughborough University is to lead the safety area of the study. Researchers from the department are undertaking large-scale experimental work on gas dispersion, fires and explosions involving accidental release of hydrogen and natural gas mixtures. By modelling the consequences of releases and the effect of hydrogen on the probability of such accidental releases, the change in risk that would arise from use of the natural gas infrastructure for handling hydrogen or natural gas mixtures will be assessed.

Professor Geoff Hankinson, from the Department of Chemical Engineering, is leading Loughborough's involvement in the project. He said: "This is an exciting and challenging project which we are pleased to be a part of. We are glad that the expertise of the department in the field of safety and loss prevention have been recognised and will play a key part in this research."

The Naturalhy project is due to finish in 2009.

Changes in the Department of Student Guidance and Welfare

Changes in the way the Department of Student Guidance and Welfare is managed have been made to enable its staff to continue its high level of service to Loughborough students.

The department consists of seven areas: Careers; Chaplaincy; Counselling, Disabilities and Additional Needs; the English Language Study Unit; the Medical Centre; and the Hall Wardens. It exists to provide students support with any problems that arise during their studies, to help students gain as much as possible from their experience at Loughborough University and to help them make plans for after graduation.

In recent years the work of the department has grown substantially, especially as a result of the increasing numbers of international students, the Disability Discrimination Act and the introduction of a successful Community Warden Service.

To ensure it can continue to offer the best support to students changes to its staff structure have been made. Wendy Llewellyn, who has combined being Director of Student Guidance and Welfare with running the Careers Service, now concentrates fully on guidance and welfare issues. Jenny Jones, who was previously the Deputy Director of the Careers Service, has been appointed as the Director of the newly named Careers Centre.

Full details of the Department of Student Guidance and Welfare are available at <http://www.lboro.ac.uk/service/welfare> Details of the Careers Centre are available at <http://www.careers.lboro.ac.uk>

Safe Surfing - Anti Virus Software

This is the first in a series of articles covering IT Security written by Matthew Cook, a Senior IT Security Specialist based in Computing Services. Far from lists of technical jargon, the articles will provide useful information for University staff at work and at home:

Computing Services, provide free of charge to all members of staff and students a piece of anti virus software. All University computers should have a piece of anti virus software installed before they are connected to the network here on campus. You may have seen the recent media attention given to large companies who have had trading hampered due to large outbreaks of computer viruses. Having this piece of software loaded on each machine connected to the network goes a long way to ensuring the University does not suffer the same fate.

The best way to ensure your machine is protected, is to have a machine that is on the 'Staff Desktop Service' provided by Computing Services. Further details are located at: <http://www.lboro.ac.uk/computing/desktop/xp/> If you are not part of the 'Staff Desktop Service', your local IT support staff should be able to ensure you have an updated piece of anti virus software.

Now that lots of members of University staff have broadband at home and check email and produce documents, it is essential that they are covered by the same anti virus protection that is present on campus. For members of staff (and indeed students) working at home you can download a copy of the anti virus software from our web site: <http://www.lboro.ac.uk/computing/security/antivirus.html>

We also provide a free anti virus CDROM with all the software ready for you to install from the Computing Services Information Desk. On our website we have a page of 'Frequently Asked Questions' should you come across any problems.

Having anti virus software installed is nowhere near effective unless your DAT files are kept updated. Anti virus DAT files contain specific information about virus threats and allow anti virus software to identify malicious software. Not all malicious software is identified by rules in DAT files, as anti virus software vendors have developed heuristics to identify components of malicious software even before the virus has been written. These heuristics will look at the piece of code you are about to execute and see how many matches are made against known bad code fragments. This works in a similar way to the heuristics that identify SPAM email.

It is important to ensure you keep your DAT file updated to remain protected against the latest viruses released.

McAfee VirusScan Enterprise 8.0i has been configured to update its DAT files on a daily basis from the Loughborough local site and if it is unable to reach that, it falls back to the McAfee site. We provide a mailing list to notify you when a new DAT file has been released by McAfee. Further details are available at: <http://www.lboro.ac.uk/computing/security/antivirus.html>

If you have any concerns or questions about anti virus software, please contact the Computing Services Information Desk by calling 01509 222320.



Pictured from the left at the awards ceremony are John Fisher, Chief Executive of Citizens Online, Karen Thomson, Chairman and Chief Executive of AOL UK, Dr Jonathan Taylor and Maria Taylor, a member of Crystal Clear Creators management committee.

Crystal Clear wins award

In October Dr Jonathan Taylor of the Department of English and drama was invited to the House of Lords to receive an Innovation in the Community Award from AOL.

Dr Taylor was receiving the award on behalf of radio writing organisation, Crystal Clear Creators, which is based partly at the University. Crystal Clear Creators was set up in 2004 by Dr Taylor and Loughborough graduate Robin Webber-Jones to record, produce, broadcast and promote new writers and actors for radio through its website.

The award will be put towards the further development of the organisation's website, www.crystalclearcreators.org, where members' work is showcased and broadcast. It is hoped this will enable Crystal Clear Creators to promote more local writers' work to radio stations and publishers.

Loughborough Race for Life target smashed

The women of Loughborough have smashed this year's Cancer Research UK's Race for Life sponsorship target.

So far the race that was held at the University in June has raised £171,508.71 for Cancer Research UK. This is with only 52 percent of women returning their sponsorship money.

Race for Life organiser, Helen Nassau said: "I would like to say a huge thank you to the 3,000 women who took part in Cancer Research UK's Race for Life in Loughborough and those who have already returned their sponsorship money. No amount is too small.

"Unfortunately one in three people will be affected by cancer at some point in their lives. At Cancer Research UK our team of world-class scientists and doctors are working hard to reduce that figure by finding ways to prevent, treat and cure cancer. Every penny raised in sponsorship from Race for Life will ensure that this life-saving research continues. This year marks the third time that Race for Life has come to Loughborough, and I'm pleased to say that we have already beaten last year's total by £71,000."

Obituary

Emeritus Professor Gordon Wray, FRS, FEng, 1928 - 2005

After a five year post as a lecturer in textile engineering at UMIST, Professor Gordon Wray joined the then named Loughborough University of Technology as a Reader in 1966, the same year the University received its Royal Charter.

He successfully initiated textile machinery and engineering research and was awarded a personal chair in 1970, becoming a Fellow of the Royal Academy of Engineering in 1980. This distinction was followed by a greater honour, Fellow of the Royal Society (FRS) in 1986. Gordon was the first home-grown FRS that Loughborough University produced.

The Royal Society's citation speaks of Gordon as 'distinguished for his contributions to the science and technology of textile machinery. This had led to numerous improvements such as the manufacture of textured yarns and the process of air-textured continuous filament yarns, and to the design of a range of highly innovative and successful textile machines'.

Gordon served Loughborough as Head of the Department of Mechanical Engineering between 1983-1988 until he retired in September 1993. He was appointed to be the Director of the Engineering Design Institute at Loughborough University of Technology in August 1988. The Fellowship of Engineering had endowed the first ever UK Chair in the Principles of Engineering Design and Gordon was invited to fill this Chair.

He won many prizes and awards, including the Viscount Weir First Prize; the Water Arbitration Prize; the James Clayton Prize of the Institution of Mechanical Engineers; the Warner Memorial Medal, the premier award of the Textile Institute; and the S G Brown Award and Medal awarded by the Royal Society for 'contributions to the promotion and development of mechanical inventions'. Gordon was also invited to give distinguished lectures on many occasions and his numerous publications include five books, nearly 200 papers and numerous patents.

Gordon was an innovator not only in research but also in engineering education. A unique educational advancement which Gordon innovated, instigated and administered within the Department of Mechanical Engineering at Loughborough was the 'Finniston-type' Experimental Teaching Contract between selected UK engineering companies and the department. He obtained substantial industrial and Government support for this pioneering initiative that commenced in 1982. The objective is to obtain a significant improvement in the present formation of engineering undergraduates by closer cooperation between university and industry, a model which we continue to use today in our engineering programmes.

Two years ago Gordon was diagnosed with cancer. He passed away peacefully on 17 August, 2005.

Those who knew Gordon know that he was very much a family man, he liked humour and cracking jokes. A lifelong follower of Bolton Wanderers football club, he lived in Rempstone with his wife Kathie, when they were not in northern Portugal in their summer home. We extend our deepest sympathy to Kathie and their two children Vaughan Richard and Mandy.

Written by Dr Memis Acar

More Sports news ...

Loughborough to be central in 2012 Olympics

With Loughborough's role as a major Olympic Games training camp now confirmed, exciting times lie ahead for the University.

The potential of catering for some of the World's and Great Britain's foremost athletes and squads in the years running up to the London 2012 Games means planning has to start now.

The University has already put in place two working groups to look at the sporting, research and inward investment opportunities for the campus. Externally, the University will be working closely with the Olympics 2012 organisation and has already been involved in Ministerial consultations regarding the academic and sporting development of outstanding young athletes, and their support needs over the coming years. The University groups are also in consultation with the East Midlands Development Agency (emda) to identify opportunities for research, tourism and other business channels, and the legacy for the region emanating from the successful Olympic bid.

The HIPAC is just one University facility Olympic athletes could use.



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