

Spotlight

on Physical Sciences
and Engineering

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From here to eternity

SCIENTISTS at the Optoelectronics Research Centre have made a major step forward in the development of digital data storage that is capable of surviving for billions of years.

Using nanostructured glass, researchers have developed the recording and retrieval processes of five dimensional (5D) digital data by femtosecond laser writing.

As a very stable and safe form of portable memory, the technology could open an era of eternal data archiving to preserve humanity's information and records.

A copy of the Universal Declaration of Human Rights was encoded to 5D data storage and presented to UNESCO at the International Year of Light (IYL) closing ceremony in Mexico last month.



Did you know?

Coined as the 'Superman memory crystal', 5D data encoding is realised in five dimensions: the size and orientation in addition to the 3D position of nanostructures

Faculty's awesome foursome



FOUR Academics within the Faculty of Physical Sciences and Engineering have again been named in the prestigious Debrett's 500 for 2016.

Published in association with The Sunday Times, the Debrett's 500 recognises the most influential and inspiring people living and working in Britain today.

Professor Dame Wendy Hall (top left), Professor Sir David Payne (bottom left) and Visiting Professor Liam Maxwell (bottom right) were all listed for their contributions to engineering and technology, while Professor Sir Tim Berners-Lee (top right) was recognised for his influence in the digital and social sector.

Celebrating success

Dan Hewak £327,000
EPSRC - N-type Amorphous
Chalcogenides



Kai Yang £1,087,000
MRC - Low-cost personalised
instrumented clothing - (see inside)



Steve King £273,000
EU grant - ELUSIVES



Yunjia Li
Royal Academy of Engineering
Enterprise Fellowship



Otto Muskens €225,000
H2020 - Next generation meta-
material based Optical Solar Reflectors



Supporting your success

At the latest Faculty Forum the Dean presented an update on the University's new sharpened strategy, recently developed by the Vice Chancellor and his senior team.

The strategy focuses on four pillars: **Quality, Sustainability, Internationalisation and Collegiality**, all of which are reflected in the following key messages:

- The University is exceptional and academic performance in the last two years has been impressive
- Southampton will become a place where staff enjoy working and are proud of our achievements
- Our strategic aim is to hold sustainable positions in the top 10 in the UK and top 100 internationally
- We need to drive up quality which drives reputation and links to improved league table positions
- High academic performance has not delivered financial sustainability
- We will address underlying inefficiencies in our systems and processes

The strategy fits well with FPSE's priorities which focus on growing our excellence and include:

Education

- International partnerships
- Innovative teaching facilities

Sustainability and Growth

- Sustainable research infrastructure and flexible space
- Strengthened technical and engineering staff

Connected Professional Services

- Supporting the Faculty to sustain success by delivering excellent and agile services

Impact and Enterprise

- accelerating impact through Future Worlds
- REF 2020 – maximising our performance

Research

- increasing and diversifying our research income
- building cross-faculty research leadership

Paul is new Head of ECS



PROFESSOR Paul Lewin will be the new Head of Electronics and Computer Science (ECS).

Paul's appointment follows his experience as the Deputy Head for Education of the historic department and as Head of the impressive Tony Davies High Voltage Laboratory.

He will take up the post next month and replaces Professor Nick Jennings, who is leaving to become Vice Provost – Research at Imperial College London.

Watch this space

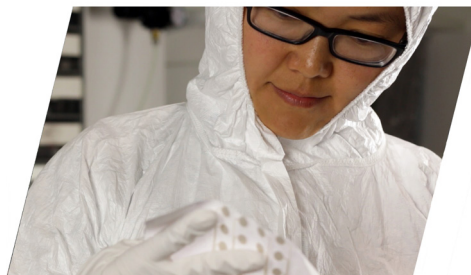


X-RAY astronomers from Southampton are supporting the observational strategy of a new satellite carrying the most sensitive instruments of all time for high time resolution astrophysics.

ASTROSAT, a multiwave astronomy satellite, was launched in India in the autumn. Southampton astronomy group members were invited to speak at a post-launch conference in Mumbai (left) this January.

Read the full story at 'Latest News' on intranet.soton.ac.uk/sites/fpse.

Support for stroke patients



GROUNDBREAKING collaborative research led by ECS Senior Research Fellow Dr Kai Yang is set to create a prototype for a wearable Functional Electrical Stimulation (FES) medical device for stroke rehabilitation.

The £1.1m project, funded by the Medical Research Council, is combining expertise from ECS with Health Sciences as it innovates a practical, comfortable and high performance solution for cost effective rehabilitation.

Record-breaking Careers Fair



THE Faculty's ninth Engineering and Technology Careers Fair has been hailed a "resounding success" after more than 1,200 students interacted with 90 companies across campus.

The event smashed Faculty records for corporate and visitor numbers. "The Fair is a great endorsement of the high regard that the UK's leading technology companies have for Southampton students," said Careers Fair Director Joyce Lewis. "It was fantastic to hear the buzz in both venues."