

NEWS EDITION

THE SCHOOLS LIAISON TEAM NEWSLETTER
FACULTY OF ENGINEERING AND PHYSICAL SCIENCES

SEPTEMBER 2011

WELCOME

The Faculty of Engineering and Physical Sciences at the University of Surrey has an extensive outreach programme running throughout the school year. The subject areas covered are; all Engineering disciplines, Computing, Maths, Physics and General Science.

We have listed some of the main events for 2011/2012 which are open to any school receiving this newsletter. Schools and Colleges are also welcome to contact us directly with specific requests for speakers or visits to the University of Surrey. A detailed list of talks for schools is available on request.

Faculty of Engineering and Physical Sciences

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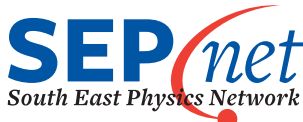
For Physics Outreach please contact

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For Outreach in all other subjects please contact Kathryn Harkup

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University of Surrey is a partner in SEPnet (the South East Physics Network). SEPnet is a partnership of seven universities working together to advance and sustain physics in the South East. The SEPnet outreach programme aims to bring the excitement, innovation and knowledge of Physics to students, teachers and the public. SEPnet

is funded by HEFCE and so all SEPnet events are free and financial assistance can sometimes be provided for transport.

To sign up to the SEPnet mailing list and receive information about all our outreach events across the region, contact clare.harvey@sepnet.ac.uk



Physics Events

'Physics at University' Taster Day

KS5 – 26 June, 10 July or 17 July 2012

Schools and sixth form colleges can bring groups of A level students into the university for a day to see what university it is like. The day includes a chance to try a practical session in our undergraduate labs, a talk from one of our academics and a campus tour. The timetable can be adjusted to specific requirements for large enough groups.

The activity will be running on the dates given, but arrangements can be made for groups to visit during the year as well.

For further information and booking, please contact c.l.harvey@surrey.ac.uk

Physics Competition

KS5 – 2 July or 3 July 2012

No prior preparation is required for this one day activity. The challenge and all instructions will be provided on the morning.

Comments from teachers last year include "It was a really good day & my students were very impressed with the University" and "Excellent day - Will return if invited!"

For further information and booking, please contact c.l.harvey@surrey.ac.uk



ALL OUR SESSIONS ARE
FREE!

Please contact schoolsandcolleges@surrey.ac.uk for more information on the above activities

SEPnet
South East Physics Network

GCSE physics taster

KS3/4 – 11 July or 12 July 2012

Schools are invited to bring a group of up to 40 students to our GCSE physics taster. This half day activity is designed for students who are at the beginning of their GCSEs or are beginning in September. The session consists of a dynamic lecture, a circus of large hands-on demonstrations and an electronic feedback session all addressing issues of energy generation, transformation, transfer and storage.

Comments from teachers last year include "Really useful" and "Fantastic event, thank you for organising this!"

For further information or booking, please contact gcse@sepnet.ac.uk

SEPnet
South East Physics Network

How to Ace Your A Levels

Yr 11 9 July 2012

A full day activity at the university campus designed to introduce key concepts at A Level. Talks and workshops introduce core ideas, plus lots of tips for passing with flying colours.

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Physics TeachMeet – Teachers

Once a term

This teacher-led evening session is a chance for those teaching physical sciences (including Design and Technology and Electronics) to come together once a term and discuss teaching ideas and suggestions. Food and drink is provided. For further information and dates, please contact c.l.harvey@surrey.ac.uk

A-level Physics revision day

KS5 – March/April 2012

The University of Surrey will be hosting an A level physics revision day. This will be run by examiners and students can book onto an AS day or an A2 day.

For further information, please contact c.l.harvey@surrey.ac.uk

For more information on how to get involved, please contact: schoolsandcolleges@surrey.ac.uk

Computing Events

Computing at School – Guildford Hub – Teacher event

Wednesday 19 October
Wednesday 22 February
Wednesday 20 June

This event is aimed at teachers in and around the Guildford area, and is intended towards forming connections amongst local Computing and ICT teachers and elaborating an agenda for future Hub events. It promises informative, engaging and enjoyable evenings with speakers from industry, education, university and research.

For further information or booking please contact, schoolsandcolleges@surrey.ac.uk

Web Mashups Workshop – Year 12

Thursday 9 February
Thursday 28 June

The workshop offers hands-on experience of creating applications using Google Maps, and an appreciation of creating readily shareable photo albums. The approaches involved can be extended to the use of applications such as YouTube, Facebook, Twitter, and so on.

For further information or booking please contact, schoolsandcolleges@surrey.ac.uk

Young Rewired State – Hack Week – Under 18s

August 2012

We are looking for young programmers to take part in a fantastic Hack Week. The perfect opportunity to learn from expert programmers and develop your own app. On the last day you get to present your work in front of a panel of influential and high-profile judges.

For further information and the sign up page see www.youngrewiredstate.org



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Maths Events

Business Maths Challenge

KS5 – Friday 3 February 2012

This is a competition for teams of four Sixth form mathematicians. Local businesses will set real-life problems for teams to solve and then present their solutions in front of a panel of experts. Different challenges will be available to suit the applications modules studied by the team members. Run in conjunction with the Further Maths Network

For further information or booking please contact, jtrim@westberks.org

Engineering Events

First Edition Engineering Days

KS3/4 – Thursday 17 November – Civil Engineering Taster Day
Thursday 23 February 2012 – Light Fantastic
Thursday 21 June – Rollercoasters

Taster days looking at a range of topics in engineering and science through hands-on activities. Run in conjunction with the Engineering Development Trust.

For more information or to book places please contact, c.thomas@etrust.org.uk

Headstart – Yr 12

Monday 9 July – Thursday 12 July 2012

This residential course held at Surrey involves Chemical, Civil, Electronic, Materials and Mechanical Engineering, with Environmental, Biomedical, Satellite and Aerospace Engineering for good measure. The course aims, through lectures and hands-on activities in most areas, to allow you to discover what engineering is all about and to find out what a rewarding career it offers.

For more information please go to the Headstart website at www.headstart.org.uk

Dragonfly Day – Yr10 Girls

13 July 2012

A day of talks and hands-on activities to show the range of opportunities open to engineering students.

For further information or booking please contact, schoolsandcolleges@surrey.ac.uk

For more information on how to get involved, please contact: schoolsandcolleges@surrey.ac.uk

Science Events

Science and Engineering Summer School – Yr12

4 – 6 July 2012

A residential course giving you the opportunity to try 'taster' days in various science and engineering disciplines. The course aims, through lectures and hands-on activities to allow you to discover what science and engineering at university is all about.

For more information please contact elc@surrey.ac.uk

Talks

Available in schools throughout the year.

Please contact schoolsandcolleges@surrey.ac.uk for more details.

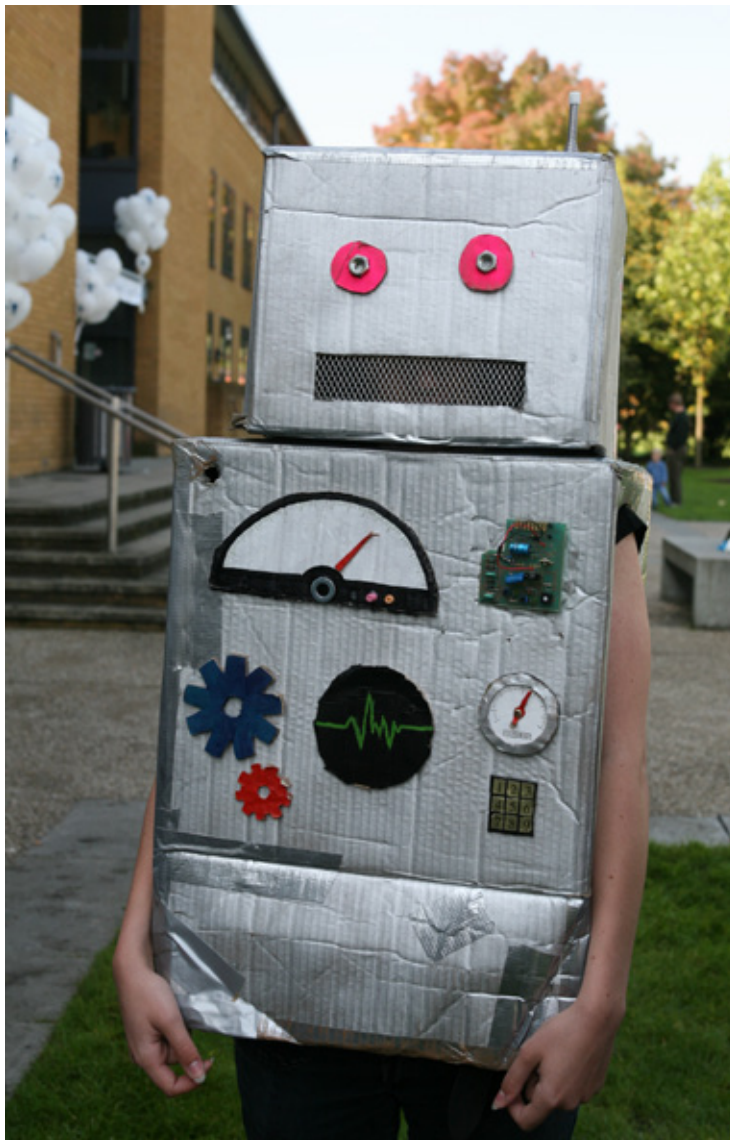
- ANY AGE**
- Vampires
 - Frankenstein
 - Space and Snowballs

- KS5**
- The Nuclear Physics of Radioactive Polonium-210
 - Cosmic Alchemy: How are We Made
 - (Some) Current Frontiers in Nuclear Physics Research
 - Field Guide to the Isotopes
 - What is the Universe made of?
 - The Mysteries of Quantum Mechanics
 - Physics and Finance
 - Photonics: communicating with light
 - Superman and I
 - O, for the Wings of a Dove!
 - Medical Engineering
 - Fuels from the Farm
 - Chaos in Cell Populations- the bugs bite back.
 - Curing Cancer with Maths
 - From Airfix Kits to Jumbo Jets: Glueing Aircraft Together
 - Astrochemical Engineering: a packed lunch for a trip to Mars.
 - Detecting damage in aerospace composite materials using optical fibre sensors
 - Are Robots Smart?
 - Vehicle Technology
 - 'Chemical Engineering: just what is that?'

Talks

- KS4**
- Radioactivity (workshop)
 - Rollercoaster physics (workshop)
 - A Walk Through the Electromagnetic Spectrum (talk or workshop)
 - Investigating Spectra (workshop)
 - Medical Physics (workshop)
 - Electricity (workshop)
- KS3**
- Ghosts
 - The Science of Harry Potter





We'd love to hear from you, so please contact us to find out how you and your students can get involved.

Email: **schoolsandcolleges@surrey.ac.uk**

Tel: **01483 683270**