



**PhD and Postgraduate Careers  
Fair and Networking Event**  
**College of Engineering and  
Physical Sciences**

22nd June 2011

Avon Room, University Centre

## 22nd June 2011 in the Avon Room, University Centre

### Careers Fair

10.30 - 11.00

**Optional Networking Training**

11.00 – 14.00

**Employer Exhibition**

**Alumni Networking**

**University Services**

- Talent Pool
- Careers and Employability Centre
- Alumni information stand
- CV Advice Clinics
- Graduate School
- Research & Commercial Services

12.30 – 13.00

**Lunch**

14.00

**Employer Exhibition and Alumni Networking closes**

### Employer Presentations

11.15 – 11.35

**Tessella**

*Dr. Graham Cox*

**Post PhD Careers, Technology and consulting**

11.40 – 12.00

**TWI**

*Dr. Richard Pargeter*

**Careers in Industry**

12.05 – 12.25

**Kaur Values Associates Ltd**

*Dr. Arpinder Kaur Bansi*

**Leadership**

### Employers

- IBM
- Rolls Royce
- GCHQ
- BAE Systems



MATCHTECH GROUP PLC

### Careers in Academia Panel

13.30 – 14.30

**Dr. John Bridgeman**

Department of Civil Engineering

**Dr. Simon Goodwin**

School of Mathematics

**Dr. Nick Hawes**

School of Computer Science

**Chaired by Professor Roy Johnston**



To register see <https://bham.targetconnect.net/home.html>

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## Employer Profiles

### TWI – The Welding Institute

TWI is a global leader in technology engineering providing research and consultancy to its members. Respected for its expertise, professionalism, impartiality and confidentiality, TWI works with the most influential companies worldwide across all industry sectors.

Operating a diverse market across a range of industry sectors and technologies, we have a variety of challenging opportunities and career choices on offer for individuals within a wide range of technology groups and other key business areas. We are particularly interested in employing graduate and post-graduate **engineers and scientists**, in addition to professional and support staff across a range of corporate functions.



### Rolls Royce

Rolls-Royce, a world-leading provider of power systems and services for use on land, at sea and in the air, has established a strong position in global markets - civil aerospace, defence aerospace, marine and energy and nuclear. In the annual survey announced by Superbrands, Rolls-Royce Group plc has been announced as the top business brand; between 1200-1600 brands are considered

We have 2 different graduate programmes; the Leadership Development Programme, which is available in a range of business areas including **HR, Engineering and Finance**, and the Professional Excellence Programme, as well as the opportunities for Apprenticeships and Postgraduate Research. We are looking for candidates with attributes from our Core Behaviours Framework including leadership, judgement, business understanding, and team work amongst others

### Serco Technical Services

Serco's Technical Consulting Services is a specialist technical support organisation with an unparalleled heritage of working in partnership with the public and private sectors. Our markets include the nuclear, defence, civil resilience and rail industries where we have a well-established track record both in the UK and overseas. We are a leading provider of independent safety, risk and environmental management, plant performance and integrity, systems engineering and engineering services. Our anticipated growth has realised a number of exciting new opportunities for high calibre people at all levels within our business. The diverse nature of our business means we employ a diverse range of people, from all backgrounds and with many different kinds of skills and experience.



### BAE Systems Detica

We develop, integrate and manage information intelligence solutions to help our clients deliver effective and secure services to citizens and customers. We also develop solutions to strengthen national security and resilience.

We are part of BAE Systems, a global defence and security company with approximately 100,000 employees worldwide. The Company delivers a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and support services. In 2010 BAE Systems reported sales of £22.4 billion.

## Tessella

Founded in 1980, Tessella is the international provider of science powered technology and consulting services. World leading organizations choose our unique blend of science, engineering and sector expertise to deliver innovative and cost-effective solutions to complex real-world commercial and technical challenges. We are proud that our work makes the world a better place to live in: developing smarter drug trials; preserving the digital heritage of nations across the globe; minimizing risk in oil and gas exploration.

If you have a good **science, mathematics or engineering degree** and enjoy solving complex technical problems then we can offer you a strong career development path in an environment where skill and achievement are highly prized.



## IBM

IBM is a globally integrated enterprise operating in over 170 countries. Today IBM UK has around 20,000 employees and is the world's largest IT and consulting services company. IBM is a global business and technology leader, innovating in research and development to shape the future of society at large. IBM's prized research, development and technical talent around the world partner with governments, corporations, thinkers and doers on ground breaking real world problems to help make the world work better and build a smarter planet.

There are many different jobs you can do with us, including **Asset Management Consultant, Business Specialist, Financial Management Consultant, Sales Specialist, Technology Solutions Specialist** and others.

## Imagination Technologies

Our multimedia and communications semiconductor Intellectual Property (IP) cores are at the heart of today's most innovative and exciting consumer electronics products. Licensed by leading semiconductor manufacturers for use in highly complex System-on-Chip (SoC) devices, our IP makes the world more connected, engaging and exciting than ever before.

At Imagination we're always keen to meet **enthusiastic, high-calibre graduates with an interest in hardware or software**. We're looking for individuals with passion, motivation and a desire to create the best. We recruit all year-round; the assessment process involves a telephone interview, followed by a face-to-face interview day. Candidates applying for software roles are likely to be asked to sit an online programming test.



## Matchtech

Matchtech is an AIM listed technical and professional recruitment company providing a high quality employment service for all contract, temporary and permanent jobs. We specialise within **Engineering, Science and Construction recruitment**. In addition to these technical recruitment sectors we also provide a professional recruitment solution in the areas of **IT, Procurement & Supply Chain, Education & Training, Accounting & Finance, HR and Sales & Marketing**.

We are currently looking for graduates to join our trainee recruitment consultant programme for 2011. As one of the largest graduate employers in Hampshire, we are looking for graduates with a natural sales ability, who are looking to build a progressive business career in recruitment.

MATCHTECH GROUP PLC

## **ENOTRAC Railway Engineering Technology and Consulting**

When ENOTRAC was founded in 1987, our aim was to carry out challenging, and interesting engineering that would bring great value to our clients. This is still our aim today.

Our field of work is primarily defined by our clients, who all share a railway background, including train and infrastructure operators, manufacturers, public authorities and other rail engineering firms. We provide them with technical advice and solutions, with an emphasis on electrical engineering, though in practice, like the railway business environment itself, the solutions are of an **interdisciplinary nature**.



## **DSTL**

DSTL maximises the impact of science and technology on UK defence and security – across government. Together we develop battle-winning technologies, based on deep and widespread research, supporting UK military operations now and in the future.

We recruit around 50 graduates and post graduates each year to join our two-year graduate development programme from a huge range of scientific and technology disciplines including **applied and physical sciences, engineering, biological and health sciences and research and development**. We will give you all the support you need to thrive during your two-year development programme; all graduates are encouraged to join our Chartership scheme and you may be able to study for further qualifications such as an MSc or PhD.



## **GCHQ**

GCHQ is home to 5,500 employees and is one of the three UK Intelligence Agencies and a part of the UK's National Intelligence Machinery. GCHQ works in partnership with the Security Service (also known as MI5) and the Secret Intelligence Service (also known as MI6) to protect the UK's national security interests.

As a 'Times Top 100 Graduate Employer', we're an excellent destination for graduates in all disciplines. The best news of all is that there are loads of intelligence and security opportunities here for students and graduates either straight from university/college or with work experience. Joining GCHQ at graduate entry level is not like being on a typical 'general' graduate scheme.

**Whilst we do occasionally run a GCHQ Leadership Development Scheme, we primarily offer 'direct entry' routes for graduates.**

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## **Alumni Profiles**

### **Dr. Simon Goodwin**

#### **University of Birmingham**

Simon Goodwin is currently a lecturer in Pure Mathematics at the University of Birmingham. He has a MMath (Mathematics, Oxford 2001) and a PhD in Mathematics from the University of Birmingham (2005).

Current research interests include: Lie theory and representation theory; algebraic groups; finite groups of Lie type; Lie algebras and finite W-algebras.

### **Dr. Sean McMitchell**

#### **University of Liverpool**

Lecturer – University of Liverpool. PhD in Electronic Engineering & Materials Physics.

### **Dr. Jon Morris Smith**

Senior IT manager leading global and EMEA teams and projects for a large financial institution.

### **Dr. John Bridgeman**

#### **University of Birmingham**

Dr Bridgeman graduated from the University of Birmingham in 1989 with a degree in Civil Engineering. He spent several years working in the water industry, during which time, he worked on the strategic asset management, planning and detailed design of water and sewage treatment systems, distribution networks and sewerage systems. In 2005, he returned to the University of Birmingham as a Senior Lecturer in Water Engineering

Dr Bridgeman's research interests encompass the broad remit of environmental engineering and may be divided into three streams (i) water quality and water treatment, (ii) hydraulics and computational modelling and (iii) infrastructure asset management and sustainability.

### **Dr. Barry Hill**

#### **Micro Research Ltd**

After completing his PhD in Physical Chemistry in 1983, Barry worked for two software houses before moving to Malvern Instruments to develop particle counters in 1988. For the 1990's he worked as a software contractor, then set up Facility Monitoring Systems (FMS) in 2000, with three other colleagues. FMS specialised in the supply of environmental monitoring systems for clean rooms, mainly in the pharmaceutical industries. His role in FMS was the development of SCADA software for this market sector. When FMS was sold to TSI Inc. in 2008, it employed 20 people with an annual turnover of more than £2m. Since then he has worked as a freelance software and electronics consultant.

### **Dr. Nick Hawes**

#### **University of Birmingham**

Nick Hawes is a lecturer in Computer Science at the University of Birmingham. His main research interest is the creation of complex intelligent systems (primarily robots). Two distinct, yet closely coupled, elements of this interest are the understanding of the design space for information-processing architectures for intelligent systems (inspired by the work of Aaron Sloman), and developing powerful and useful (software) tools for implementing such architectures. Together these interests contribute towards the scientific understanding of the engineering of intelligent systems. He is part of the Intelligent Robotics Lab and also collaborates with the Software Engineering Research Group. He currently works on the CogX project and was previously part of the CoSy project.

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**Prof. Derek Atkins**

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**CASS Business School**

Derek Atkins is a professor at CASS Business School teaching MSc Risk Management and also acts as a non-executive director for companies in the City and the Middle East.

"I completed my engineering PhD at Birmingham in 1971. The employment environment was even worse than it is now. I moved into the Civil Service, from there into the insurance industry at the start of risk management, retrained professionally moving up to director level working in many countries. In 2003, when I had to apply for my own job for the 5th time in 6 years I started my own educational and management consultancy. I am currently professor at Cass Business School teaching Msc Risk Management and have written lots of boring textbooks for the professional institutions in the financial sector. I had no idea that a thesis on 'electrochemical Influences in lubrication' could lead where it did".

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**Dr. Ian Holloway**

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Ian Holloway has a PhD in Physics and acted as a research fellow in Nuclear Medicine at the Strathclyde University. He was a medical physicist within the NHS where his roles included lecturer, radiation protection officer, as well as having research and routine clinical commitments. He has since worked at the regional coordinator for national incidents involving ionising radiation and is now a specialist tutor for Mathematics within the Northumberland Education Authority.

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**Dr. Emma Catton**

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**Mewburn Ellis LLP**

Emma is a PhD Graduate from the School of Physics and Astronomy. She now works for Mewburn Ellis LLP, a firm of patent attorneys, as a trainee patent attorney.

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**Dr. Arpinder Kaur Bansi**

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**Kaur Values Associates**

Arpinder Bansi is the Managing Director of Kaur Values Associates Ltd. She worked in the Civil Engineering sector for over 20 years before founding Kaur Values Associates Ltd in December 2010, a leadership development organisation to work with individuals, teams and organisations big and small unleashing their hidden potential to enhance performance and capabilities. This is achieved by realigning their strengths to their core values, thus unlocking access routes to unused capabilities to fast track their journey to success.

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**Dr. Tim Johnson**

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**Tetronics**

Tim Johnson is the Technical Director of Tetronics Ltd. He graduated with a BSc(Hons) in 1987 and got his PhD in 1990. From 1990 to 1998 he was a Research Fellow at the IRC in Materials at Birmingham University on various subjects related to the melting of titanium and other aerospace alloys. The last six years were spent working on the Plasma Melting Unit, some of these as Theme Coordinator, and whilst there he came into contact with Tetronics Ltd, the UK's only developer and supplier of plasma melting technology and a global leader in its field. In 1998 he went to work for Tetronics as a Process Engineer, working on the development and supply of plasma technology to the metals, materials and environmental industries across the World. In January 2008 he was appointed to the post of Technical Director and from the beginning of 2009 he has had a position on the Board of Directors of Tetronics.

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**Dr. Paul Birchenough**

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**Xodus Group**

Senior consultant – Xodus Group (Oil & Gas energy consultants).

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**Dr David Haniff****Pervasive Technology Lab**

Dr David Haniff has a MSc in Cognitive Science and a PhD in Augmented Reality. He currently works as the Director and Developer of Pervasive Technology Lab, a non-profit company created to develop new technology to help people with mental health problems.

Since graduating from Birmingham, he has worked as a researcher at Loughborough University on a project to develop a simulation of a 'Smart Home'. He has also worked in technical roles within industry; however, recently he created a company to look into the use of new technology to help people with mental health problems. The company has been awarded funding by the Big Lottery Fund to develop a serious game to help people with depression. The company was also a Finalist in the Milton Keynes Chamber of Commerce Business Excellence Awards 2010.

**Dr. Ziad Mouneimne****ENOTRAC**

Ziad Mouneimne has a BSc and PhD in Civil Engineering. He now works as the Managing Director of the Railway Ziad Engineering Consultancy firm ENTORAC UK Limited.

**Dr. Joanne Healey****BAE Systems Detica**

Joanne works for BAE Systems Detica, a business and technology consulting firm. Its areas of expertise are information exploitation, security and resilience, fraud containment, threat intelligence and customer insight.

The Adept team would like to thank alumni and employers for their support at this event.

Also thank you to our University colleagues for their contribution, and in particular to the Alumni Relations Office for their support.

The members of the Adept Doctoral Researcher team involved in the organisation of the event are:

Tim Gilbert – Civil Engineering

Ramin Akyhani – Civil Engineering

Jun Zhang – Mechanical Engineering

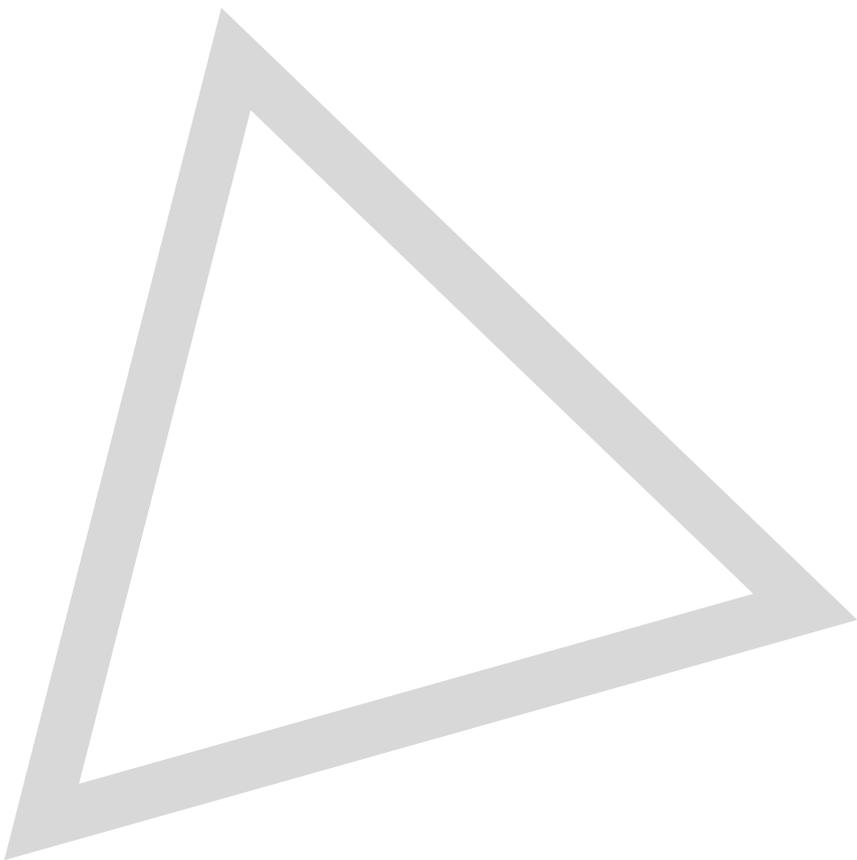
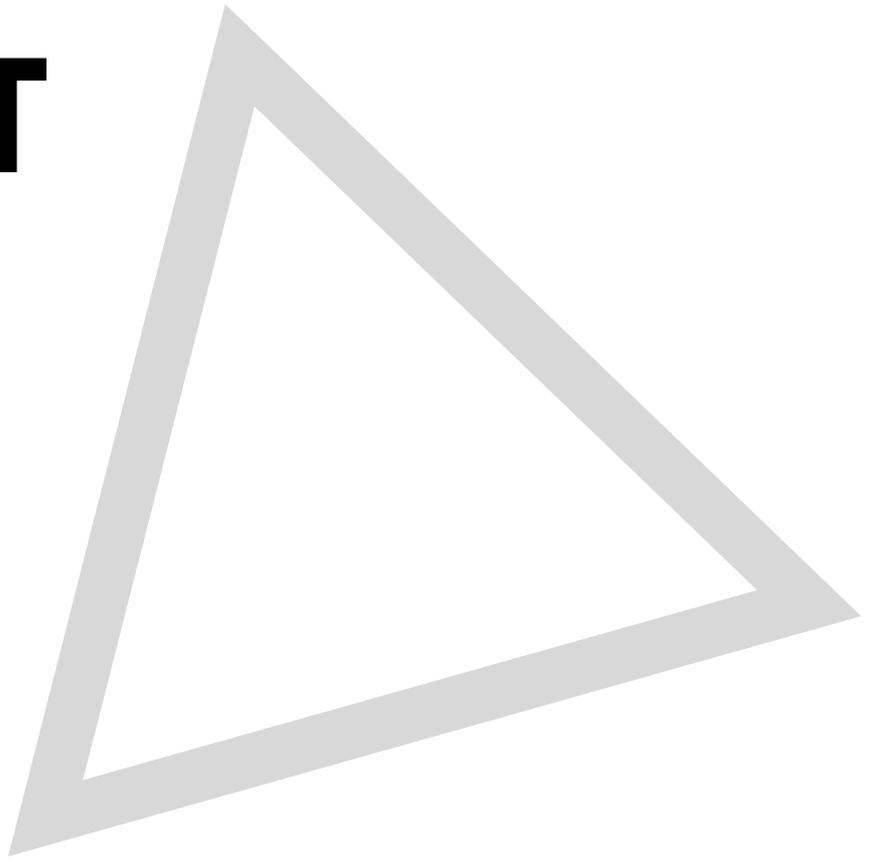
Lawrence Mudarikwa – Physics and Astronomy

Kate Phillipson – Materials and Metallurgy

Many thanks to Natalie Taylor for the booklet design.

[www.as.bham.ac.uk/adept](http://www.as.bham.ac.uk/adept)

# **ΔDEPT**



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