

## **Careers and Employability Service Additional resources and information for**

# **ECS students**

### Welcome:

We have developed this recourse pack to help you research specific job sectors which may be of particular interest to ECS students and graduates.

ECS has well established links with local, national and international employers and organisations. An extensive range of presentations and workshops are organised by your Faculty, ECS student societies, particularly IEEE and ECSS, and Career Destinations, providing you with insights into employers, possible job options and how to apply effectively.

Many employers attend the <u>IT</u>, <u>Science and Engineering Careers Fair</u> each October, the <u>ECS</u> <u>Careers Fair</u> in February and promote themselves via the <u>ECS Careers Hub</u>, where a variety of industrial placement, summer internships and graduate vacancies are advertised. Many employers also advertise on the Career Destinations <u>Jobs Board</u>. You will also receive emails advertising specific vacancies from the Faculty.

The Prospects site includes information and advice covering: Your skills, job options, career areas, further study, what next, case studies, contacts and job search sites.

- Prospects.ac.uk Options with Computer Science / IT
- Prospects.ac.uk Options with Electrical and Electronic Engineering
- **<u>Prospects.ac.uk</u>** Options with Information Systems

#### **Document Index (Quick Links):**

This document has handy hyperlinks to help you navigate around it if you view in an electronic format.

- **<u>Finding Job Vacancies</u>** advice on job hunting techniques
- ECS Related Jobs and Internships ECS jobs board links
- **Employment** Example jobs taken by ECS graduates (by sector)
- Key Occupational Information Professional bodies (by sector)
- **<u>Further Study</u>** Example postgraduate programmes taken by ECS students

## **Finding Job Vacancies:**

As a graduate from ECS you can go into a wide range of occupations, some open to all graduates, and some particularly relevant to your degree. Information and advice about how to find out about employment opportunities can be found on our <u>Job Hunting webpages</u> and on the <u>Prospects</u> website.

Take some advice from one of our previous graduates who says:

"Consider a wide range of firms. Less well-known companies might be a leader in areas that you are interested in. Using contacts in a particular location or business sector and attending careers fairs are great ways to discover a good firm."

It is easy to use the internet to find jobs, but for students it pays to do some initial research taking the time to find out about job roles and the industry. There are openings with every size of company from the small and specialist to the large multi-national. Also many graduate jobs and placements are notified to contacts in ECS, so keep a check on your email.

If you're not sure what career is right for you, try using the career matching programmes <u>Prospects Planner</u> and <u>Careers Report</u>.

When applying for vacancies you may need support in constructing a CV, filling out an Application Form, drafting a Cover Letter or preparing for Interview. We offer support on all of these areas via our <u>Job Application Resources webpages</u>.

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## **ECS Related Jobs and Internships:**

The information below can be used to find job vacancies that are related to your programme, and/or to build understanding of relevant roles. Quite often ECS graduates who wish to enter a career directly related to the degree programme may build experience through a number of internships or project work alongside their studies. This provides an opportunity to gain experience and form connections in the industry or seek further study opportunities within a related programme e.g. a PhD in Computer Science or Electronic Engineering.

Make the most of the opportunities provided by the University to meet and network with alumni from ECS at the University of Southampton, particularly the ECS Engineering and Technology Careers Fair, and learn from their experiences.

- ECS Careers Hub A number of employers approach ECS industrial liaison tutors with opportunities. These will be advertised on the ECS Careers Hub and via email.
- Excel Southampton Placement Programme Career Destinations run this programme during the Easter and Summer vacations and there are always frequently for ECS students and recent graduates. Check out the Excel Southampton webpage for more details.

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## **Employment:**

Most graduates from ECS move into jobs where their technical skills and degree content are very relevant, be they computing, or telecoms, or electronics and electrical engineering. There is considerable overlap between the job titles and groupings. Some employers target particular degrees, others recruit from all ECS programmes of study.

Some graduates choose to move into careers where the focus is on applying the transferable skills developed during their studies, work experience, student societies or other interests. Self-employment is another option, often used in the IT industry to exploit or cope with the peaks and toughs in demand.

The examples on the following pages give a sense of the kinds of jobs graduates from ECS are doing six months after graduation (data collected from 2004 onwards).

#### Scientific Research and Development:

- Graduate Engineer, Roke Manor Research Ltd (Chemring) <u>www.roke.co.uk/jobs</u>
- Research Assistant, University of Southampton <u>www.ecs.soton.ac.uk</u>
- Researcher, Science & Technology Facilities Council, and
- Robotic Engineer Rutherford Appleton Laboratories <a href="http://www.stfc.ac.uk/graduates">http://www.stfc.ac.uk/graduates</a>
- Knowledge Transfer graduate <u>www.ktponline.org.uk</u>

#### **Electronics and telecommunications:**

- Electronic Design Engineer, CP Electronics <u>www.cpelectronics.co.uk</u>
- Electronic Engineer, Telsis <u>www.telsis.com</u>
- Electronic Engineer, Kanto Instruments <u>www.kanto.co.uk</u>
- Electronic Engineer, Madgetech Inc. <u>www.madgetech.com</u>
- Electronics Engineer, British Antarctic Survey http://www.antarctica.ac.uk/
- Electronic Test Technician, Cobham Technical Services <u>http://www.cobham.com/</u>
- Graduate Engineer, Telesoft Technologies Ltd <u>http://www.telesoft-technologies.com/</u>
- Graduate Engineer, Siemens http://www.siemens.co.uk/careers/en/graduate/graduate.htm
- Graduate Engineer, Ericsson TV Ltd <u>http://www.ericsson.com/careers/student</u>
- Graduate Engineer, ARM <u>http://www.arm.com/about/careers/graduates/index.php</u>
- Graduate Hardware Engineer and Graduate Design Engineer, Imagination Technologies <u>www.imgtec.com/corporate</u>
- Production Operator Ultra Electronics <u>http://www.ultra-electronics.com/careers/</u>
- Radio Design Network Engineer Thales <u>www.thalesgroup.com</u>
- Systems Engineer, NDS now part of Cisco <u>http://www.cisco.com/web/about/ac40/about\_cisco\_careers\_home.html</u>
- Technical Support Engineer, MX Telecom Ltd now Open Market <u>http://careers.openmarket.com/</u>
- Technical Director, Energy Management Products Ltd <u>http://www.nrgmp.com/</u>

#### **Other Industry/Manufacturing:**

- Electrical Engineer, Rolls Royce <u>http://www.rolls-royce.com/careers/</u>
- Product Development Engineer, VIP Polymers <u>http://www.vip-polymers.com/careers.asp</u>
- Product Development Engineer, Jaguar Land Rover http://www.jaguarlandrovercareers.com/

#### **Defence:**

- Graduate Engineer, BAE Systems <u>www.baesystems.com/graduates</u>
- Electronic Engineering Officer, Royal Navy <u>www.royalnavy.mod.uk</u>
- Science and Engineering Ambassador, MBDA www.mbdacareers.co.uk
- Trainee Chartered Engineer, Ministry of Defence <u>www.mod.uk</u>
- Operational Analyst, DSTL <u>www.dstl.gov.uk/graduates</u>
- Civil Servant, GCHQ <u>www.gchq.gov.uk</u>

#### Power generation, distribution and energy:

- Electrical Engineer, EDF Energy Networks <u>http://careers.edfenergy.com/graduates/</u>
- Graduate Engineer, UK Power Networks <u>http://www.ukpowernetworks.co.uk/</u>
- Trainee Engineer, Western Power Distribution <u>www.westernpower.co.uk</u>
- Power Systems Manager, National Grid <u>http://www2.nationalgrid.com/</u>

#### Programming, systems analysis and software engineering:

- Content Developer, Jagex <u>http://www.jagex.com/careers/jagex/</u>
- Computer Programmer, Climax Studios <u>http://www.climaxgroup.com/</u>
- Database Services Programmer, Callcredit Information Group http://www.callcredit.co.uk/ Check links from here
- Enterprise Systems Management Specialist, University of Southampton
- Financial Software Developer, Bloomberg <u>http://www.bloomberg.com/careers/</u>
- Programmer/Associate Software Engineer, Accenture, Accenture Technology Solutions http://careers.accenture.com/gb-en/Pages/index.aspx
- Software Developer, IBM <u>http://www-05.ibm.com/employment/uk/</u>
- Software Developer, Ocado http://www.ocado.com/careers/home.do
- Software Developer, NDS now Cisco <u>http://www.cisco.com/web/about/ac40/univ/index.html</u>
- Software Development Engineer, Rare Ltd <u>www.rareware.com</u>
- Software Engineer, Factset <u>http://www.factset.com/careers</u>
- Software Engineer, Astrium <u>http://www.astrium.eads.net/en/gdp/</u>
- Software Engineer, Advanced Altera <u>http://www.altera.com/</u>
- Graduate Software Support Analyst, Fidessa <u>www.fidessa.com/careers</u>
- Graduate Analyst, JP Morgan <u>http://eurocareers.jpmorgan.com/</u>
- Software Tester, IBM <u>www.ibm.com/employment/uk</u>
- Technical Analyst, Credit Suisse https://www.credit-suisse.com/uk/en/

- Technology Analyst, Goldman Sachs <u>www.goldmansachs.com/careers</u>
- Technology Analyst, Senior Analyst, Bank of America Merrill Lynch <u>http://careers.bankofamerica.com/careershome.aspx</u>
- Software Consultant, Imeta <u>www.imeta.com</u>
- Consultant, Thunderhead <u>http://www.thunderhead.com/company/careers</u>
- Test Analyst, Cap Gemini <u>www.capgemini.com</u>
- Systems Developer, Steer Davies Gleeve <u>www.steerdaviesgleave.com</u>
- Software Engineer, Google <u>www.google.co.uk/about.html</u>
- Web and App Developer, Method and Class http://www.methodandclass.com/index.php

#### **Technical Sales and Support:**

- New Business Developer, Netcraft http://news.netcraft.com/jobs/
- Sales Engineer, Hamamatsu Photonics UK Ltd <u>www.hamamatsu.com</u>
- Science Technician, Hampshire County Council <u>www.hampshirejobs.org.uk</u>

#### **Technical Consultancy:**

- Graduate Electrical Engineer, Mott MacDonald <u>http://www.careers.mottmac.com/</u>
- Information Security Consultant, MWR Info Security <u>www.mwrinfosecurity.com</u>
- IT Consultant, SAS <u>www.sas.com</u>
- Analyst, PA Consulting <u>http://www.paconsulting.com/careers/</u>
- Software Consultant, Voicekey http://www.voicekey.co.uk/
- Systems Analyst, Logica now CGI <u>http://www.graduate-jobs.com/scheme/cgi</u>

#### Quantum computing and nanotechnology:

• **QIP-IRC** <u>www.qipirc.org/home/about</u>

#### **Robotics:**

• BARA British Automation and Robot Association <u>www.bara.org.uk</u>

Search for commercial, manufacturing, biomechanical and defence companies active in robotic research and development, using directories such as Applegate and Yell.

#### Games industry:

- Datascope jobsboard <u>www.datascope.co.uk</u>
- International Games Developers Association <u>www.igda.org</u>
- Games industry international <u>www.gamesindustry.biz</u>

#### Digital Media

• Wired Sussed for digital media events, jobs and news http://www.wiredsussex.com/

**Recruitment agencies focusing on Technology and Engineering sectors** 

- Connectus (part of Matchtech group) <u>www.connectusnow.com</u>
- Strgroup <u>http://www.strgroup.co.uk/</u>
- ARM Advanced Resource Managers <a href="http://www.arm.co.uk/">http://www.arm.co.uk/</a>

Jobs boards and careers information:

- Targetjobs IT and Telecoms <u>http://targetjobs.co.uk/it-and-telecoms/default.aspx</u>
- Inside Careers IT Guide <u>www.insidecareers.co.uk/it</u>
- Computing Careers <u>www.computingcareers.co.uk</u>
- CW Jobs <u>www.cwjobs.co.uk/Graduate\_IT\_Jobs</u>
- Computer Weekly <u>www.computerweekly.com/jobs</u>
- IT Jobs Watch <u>www.itjobswatch.co.uk</u>
- Gradcracker <u>http://www.gradcracker.com/</u>
- Targetjobs Engineering <u>http://targetjobs.co.uk/engineering/default.aspx</u>
- WirelessMobile-jobsboard.com <u>www.wirelessmobile-jobsboard.com</u>
- Communications International <u>www.totaltele.com</u>
- Technojobs <u>www.technojobs.co.uk/jobs/graduate</u>
- EE Times Europe <u>www.eetimes.eu/uk</u>
- Electronics Weekly <u>www.electronicsweekly.com</u>
- The Engineer online <u>www.theengineer.co.uk/Jobs</u>
- Engineer jobs <u>www.engineerjobs.co.uk</u>

#### **Other Roles:**

- Auditor, E&Y <u>www.ey.com</u>
- Trainee Clinical Engineer, NHS <u>www.nhscareers.nhs.uk</u>
- Patent Attorney, Gill Jennings <u>www.gje.com</u>

## **Key Occupational Information:**

Professional bodies offer student membership, careers information, news, jobs boards, professional accreditation and Chartership. Some have lists of member organisations. Student societies in ECS have many employer events.

- Institution of Engineering and Technology <u>www.theiet.org</u> Combines the Institutions of Electrical and Incorporated Engineers
- IEEE <u>http://ieee-ukri.org/</u> Global professional association for technology professionals, current issues, jobs, advice

UoS student branch <u>http://www.ieee.ecs.soton.ac.uk/</u>

 Society for the Study of Artificial Intelligence and Simulation Behaviour <u>http://www.aisb.org.uk/</u>

- **British Computer Society** <u>www.bcs.org</u> Current issues, careers information, jobs and profiles.
- Institute of Physics and Engineering in Medicine <u>www.ipem.ac.uk</u> Promotes the advancement of physics and engineering applied to medicine and biology.
- e-skills UK <u>www.e-skills.com</u> Sector Skills Council for IT and Telecoms, industry market intelligence, skills issues.
- Women in technology <u>www.womenintechnology.co.uk</u>
- WISE, women in science and engineering classroom to boardroom <a href="http://www.wisecampaign.org.uk/">http://www.wisecampaign.org.uk/</a>
- WWW2W <u>www.wherewomenwanttowork.com/graduates</u>

#### Newspapers and Journals:

- For up-to-date news and emerging career opportunities:
  - The Guardian Technology supplement,
  - The <u>BBC Technology pages</u>
- <u>The New Scientist</u> for special reports (e.g. nanotechnology, robots, graduate opportunities), careers information and jobs.

## **Further Study:**

On average around 94% of University of Southampton ECS graduates reported being employed and/or engaged in further study 6 months after they completed their undergraduate studies. Of this number approximately 14% were engaged in further study, while 79% found full-time employment. Check out our <u>Further Study pages</u> for more information on choosing a further study programme.

The examples on the following pages give a sense of the kinds of further study programme pursued by ECS students after graduation (data collected from 2004 onwards).

#### PhD/MPhil:

• University of Southampton (lots), University of Oxford, University of Bristol, University of Sussex, University of Surrey, University of Newcastle upon Tyne

#### MSc:

- Artificial Intelligence, University of Edinburgh
- Computer Games Technology, City University, London
- Risk Management and Financial Engineering, Imperial College, London
- Design School of Design, Engineering and Computing, University of Bournemouth
- Electronic Engineering University of Southampton
- Information Management University of Southampton
- Management University of Southampton
- MRes London School of Economics

- Sustainable Energy Technologies London School of Economics
- Computational Statistics UCE
- Electronic Communications Nottingham University
- Business Management Imperial College, London
- Web Science University of Nottingham, ECS
- Computer Science University of Sussex

Student also go one to study accountancy, medicine, teacher training and law.

#### **Research Councils:**

Research councils provide funding for some PhDs (and very occasionally masters degrees) through training grants. This is organised with the university, but you can see what projects are being funded and the criteria on the relevant council websites, two of which are shown here. You can use the <u>HEFCE site</u> to find out about other English higher education institutions, with links to partner organisations for Northern Ireland, Scotland and Wales.

- Engineering and Physical Sciences Research Council <u>www.epsrc.ac.uk</u>
- Biotechnology and Biological Sciences Research Council <u>www.bbsrc.ac.uk</u>
- Higher Education Funding Council for England <u>www.hefce.ac.uk/unicoll/</u>

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