

South East Physics Network (SEPnet) Employer Engagement Programme

STFC Knowledge Exchange Workshop
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South East Physics Network (SEPnet) Employer Engagement Programme

- What is SEPnet
- Employer Engagement
- SEPnet Summer Placement Scheme
- Benefits for students and employers
- What you can do next

What is SEPnet?

- The South East Physics Network (SEPnet) is a consortium of physics departments in 9 universities (Kent, Herts, OU, Portsmouth, Queen Mary, Royal Holloway, Southampton, Surrey & Sussex)
- Part HEFCE and part SEPnet partner-funded
- The SEPnet partners work together to deliver excellence in physics through collaboration, teaching and research
- Includes an outreach programme to increase student interest in physics
- A Graduate School (GRADnet) to develop skills of postgraduate research students
- A collaborative research programme
- An employer engagement programme to develop employability skills of undergraduates and postgraduate research students

Employer Engagement – Physics Undergraduates

Aim

- To create a strong pipeline of well-qualified, employable graduates who will benefit both industry and research
- Improve employability rates of physics graduates - 71% in FT emp/study in 2012 vs 80% overall (DLHE)
- Address shortage of STEM graduates with the right skills (CBI/UKCES)

Why placements?

- *One in three graduate posts are filled by people who have previously worked for that company as an intern and*
- *Graduates without work experience will struggle to get jobs no matter how good their grades (High Fliers 2013)*
- Work experience shown to develop employability skills

What is the SEPnet Summer Placement Scheme?

- An annual scheme offering placements to 2nd and 3rd (non final) year physics students at partner universities
- Employers who recruit physics graduates and university supervisors offer 8-week summer projects
- Students receive a £2,000 bursary from the university or employer
- Projects are circulated to students who apply direct for roles
- Students produce a poster during their placement
- Students present their poster at the SEPnet Annual Students' Expo in London in November

What areas and types of organisations offer SEPnet placements?

- Defence, energy, engineering, satellite communication, aerospace, science research, electronics, IT, optics, environment
- Organisations offering placements through the SEPnet scheme include large corporates, SMEs, research institutions:
 - Amec, BAE Systems, QinetiQ, Culham Centre for Fusion Energy, Good Energy, LGC Forensics, Winchester Science Centre, Selex SE, Brighton & Hove Albion Football Club, National Physical Laboratory, Met Office, partner universities and many more

Employer Engagement - Postgraduate Research Students (PGRs)

Aim

- To create a pipeline of postdoctoral graduates with the employability skills to provide leadership, entrepreneurship and innovation in industry

Why

- Only 3.5% PhDs in science become permanent research staff/17% in non HE research/79.5% in industry (HESA/DLHE/Vitae 2010)

Commitments

- Engage with employers, include real-world, problem-solving experiences to broaden employability prospects of PhDs
- Offer (2 week – 3 month consultancy projects/placements and other opportunities through GRADnet eg work shadowing, site visits, employer mentoring, employer workshops and networking events

What employers are looking for and physics students/graduates offer

- Technical skills: coding, knowledge of software programmes, data analysis
- Projects include feasibility study, product testing, upgrading a piece of kit, calibrating a new detector, modelling, website development or science communication
Transferable skills: communication – explaining technical concepts, problem solving, team-working
- Attributes: enthusiasm, professional attitude, willingness to learn, initiative (but knowing when to ask for help), fresh ideas
- Opportunities to develop relationships with departments for knowledge exchange

Case study



Student: Adam Greenen, University of Southampton

Placement: Selex ES

Role: Infra-red detector design

What happened next?

After finishing his MPhys degree and receiving a first class with honours he has secured a graduate role as a research scientist at the National Physical Laboratory.

“The interviewers (at NPL) were particularly interested in my SEPnet placement as the skills I had learnt were desirable for the role I applied for.”

Case study



Student: Laura Benn, University of Southampton

Placement: Magnetic Shields

Role: Development of magnetic testing for process control

What happened next? Laura was offered more work at Magnetic Shields and starting full-time with them in 2014

"I am more confident in my own ability to apply what I know to a job and less worried about my career prospects."

What you can do next

- Offer an 8 week undergraduate summer placement
- Offer a short PhD placement
- Offer a site visit or work shadowing opportunity
- Become a mentor
- Give a talk to students
- Attend our networking events (SME networking event with PGRs and academics at Queen Mary University of London, 2 September)

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