



Student: James Kneller
Queen Mary, University of London

Placement: National Physical Laboratory
<http://www.npl.co.uk/>

Role: Student Intern

“The placement has given me the chance to hone my experimental skills, training on the practices done at the country’s measurement lab.”

What is the subject of your PhD?

My PhD is an experimental investigation into optically-induced dielectric changes in organic/plastic semiconductors. The placement was a study into optically measuring temperature in solar cells.

Describe a typical day on placement

My day was primarily spent in the lab. From day one I got stuck into doing the experiments at hand. This consisted of building and calibrating an LED rig, mounting PV cells within a chamber (a fiddly task!) and subsequent temperature & IV measurements. These were presented to the group at fortnightly meetings where improvements and progress were discussed.

What skills and knowledge have you gained during the placement?

I have learnt important skills in the analysis of data and uncertainty budgets, and the use of software (MATLAB and LabVIEW) which is common in the field but I hadn’t used in my PhD.

How do you think doing a placement has benefited you for the future?

My time at NPL has opened my eyes to what scientific research outside academia is like and its benefits. NPL still undertakes fundamental research and has prepared me to take the leap to continue in a science-related field but not necessarily at a university. The change of environment and project made me regain my focus to finish my PhD.

What advice would you give to a PGR student who might be interested in seeking a placement?

Do it! I took this internship because the project closely related to my own. Looking back I feel that I should have taken more opportunities as the real benefit is the experience at the workplace, though, of course, a project you’re interested in helps!

Employer Perspective:

The placement helped us deliver one of our projects on time. James brought additional skills to our team which enhanced our delivery capabilities. We would highly recommend hosting a placement student at PhD level.

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