



**Student:** Alessandra Costantino,  
University of Southampton

**Placement:** Cobham RAD Solutions

**Role:** Space radiation effects testing

*“I believe experience out of academic research will allow me to plan my career with an improved awareness of the available options and skills required in the fields I am interested in.”*

### What is the subject of your PhD?

I work in the Astronomy Group at University of Southampton. I am working on gamma-ray imaging using a technology called ‘coded masks’.

### Describe a typical day on placement

My job consisted of testing a sample of electronic devices for radiation damage. This is done by repeatedly exposing the devices to gamma radiation and measuring some key parameters at each stage. The work involved a preliminary phase, in which I prepared the samples to be tested and developed software to control the measurement devices. Most of my time was spent programming or planning the practical details of the measurement and irradiation stages.

The second phase consisted of taking repeated measurements of different parameters and analysing the results. This involved data collection as well as data analysis. At the end of the set of measurements I had to organise all the data and filed a report for the customer who commissioned the tests.

### What skills and knowledge have you gained during the placement?

I have improved my software development skills and extended and refined the theoretical and practical knowledge in analogue electronics I learned during my undergraduate studies. I have also learnt the procedures and standards involved in the radiation testing industry and protocols to deal with customers which are skills easily transferable to other areas of business.

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

Doing a placement has given me the possibility to get an insight into how a commercial environment works.

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

Read the placement description thoroughly and do some background research about the company that you intend to work for to assess whether it fits your background or can give you the opportunity to learn the skills that you want to learn.

I would also encourage students on placement to be open with their tutors/employers about their expectations and learning goals for the internship period so they can tailor your work experience to help you meet them.

[www.sepnet.ac.uk](http://www.sepnet.ac.uk)