



## Post Specification

<b>Post Title:</b>	Post Doctoral Research Assistant
<b>Post Status:</b>	2 years
<b>Department/Area:</b>	CRANN / Physics
<b>Closing Date:</b>	12 Noon 06 January 2012

### **Postdoctoral Research Assistant in Development of Supercapacitors based on two-dimensional nanomaterials**

Prof Valeria Nicolosi has been awarded a grant from the European Research Council to study the development of supercapacitors based on two-dimensional nanomaterials and is looking for a postdoctoral research assistant with significant practical experience in high-resolution electron microscopy and electron energy loss spectroscopy (EELS). The post is available from 1 February 2012 for up to 2 years.

The successful candidate will be responsible for the structural characterisation of liquid-phase exfoliated 2D nano-sheets by HRTEM/STEM and the investigation of their electronic structure by EELS. Working with members of Prof Nicolosi's group they will also be expected to liaise with collaborators at the SuperSTEM facility, and the University of Oxford.

Applicants should have a PhD (by the start date) in Physics, Chemistry, Materials Science or a related discipline and experience in HRTEM/STEM and EELS. They should be well organised and self-motivated with excellent oral and communication skills, plus a strong publication record in internationally peer-reviewed journals.

Interested candidates should forward their CV (including contact details for 2 referees) by noon on Friday 6<sup>th</sup> January 2012 to Professor Valeria Nicolosi [nicolov@tcd.ie](mailto:nicolov@tcd.ie)



## **CRANN Overview**

The Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) comprises a team of over two hundred and fifty researchers from 45 different countries, led by eighteen principal investigators and seventeen investigators, each of whom is an internationally recognised expert in his/her field of research. CRANN principal investigators are based across multiple disciplines including physics, chemistry, medicine, biochemistry and immunology, engineering and pharmacy. CRANN works at the frontiers of nanoscience developing new knowledge of nanoscale chemical and physical phenomena, with a particular focus on new device and sensor technologies for ICT, biotechnology and medical sectors.

CRANN has two state-of-the art buildings both custom designed and constructed for the purpose of leading edge nanoscience research. The Naughton Institute is a 6000m<sup>2</sup> research facility on the campus of TCD. The CRANN Advanced Microscopy Laboratory (AML) was completed in 2009. This facility is on Pearse Street and houses Ireland's most advanced microscopy instrumentation, enabling Ireland to compete internationally in terms of this capability. The impact is being measured in terms of Ireland 8th place ranking in materials science, of which over 70% of the cited publications are linked to CRANN and its partner schools.

Through its SFI funded Centre for Science, Engineering and Technology (CSET), CRANN has a specific remit to work with industry. CRANN presently has active research engagement with over seventy companies in Ireland and Europe, including multinationals such as Intel and HP and indigenous companies such as Cellix and Eblana Photonics. CRANN has also been very successful in obtaining non-Exchequer funding (e.g. European Union Frameworks) that enabled the establishment of an extensive academic partnership network involving over 100 European universities and 160 universities globally.

On a national basis CRANN leads the INSPIRE consortium ([www.inspirenano.com](http://www.inspirenano.com)) which comprises the foremost nanoscience researchers in Ireland based across eight academic institutions. CRANN, in partnership with the Tyndall National Institute, will co-host the Competence Centre for Applied Nanotechnology. This is a new initiative to enable research provider organisations to partner one another on an industry defined research programme.

CRANN has been funded predominately by Science Foundation Ireland and has also obtained competitive funding from the Higher Education Authority, Enterprise Ireland, industry, the EU commission through FP6 and FP7 and philanthropic sources, notably Dr Martin Naughton.



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### **CRANN Advanced Microscopy Laboratory:**

The CRANN Advanced Microscopy Laboratory (AML) is a custom built, state of the art 6,000 square foot facility, located in the Trinity Technology and Enterprise Campus, in Central Dublin. The centre houses a critical mass of high end scanning and imaging electron and ion beam microscopes for sample imaging, analytics/characterisation, and nanofabrication.

<http://www.crann.tcd.ie/index/Facilities/AdvancedMicroscopyLaboratory>