PI name & contact details: Prof. Graham Cross  email: crossg@tcd.ie

School:
School of Physics

Has project been agreed with head (or nominee) of proposed registration school?

Research Centre / group affiliation: CRANN

Research group / centre website: Cross Nanomechanics Group

PI website / link to CV: http://grahamcross.net

Brief summary of PI research / research group / centre activity (2 or 3 lines max):

We focus on nanomechanical forming and testing, with an aim to addressing some of the fundamental difficulties in the application of nanoscale manipulation and fabrication to low cost, highly scalable processes.

Title & brief description of PhD project (suitable for publication on web):
Surface plasmon trapping via controlled nanostructure formation.

Investigate the use of novel and patented nanopatterning techniques developed within the group to the development and application of surface plasmon traps.

Unique selling points of PhD project in TCD:
projects should offer something that’s not available in Brazil – specific equipment, multi-disciplinarity, aspects of structured programme, links with industry, placements, links with other research groups etc.

The Trinity PhD is a structured PhD and students can access discipline-specific training, as well as generic and transferable skills. All PhD students are eligible to participate in the Innovation Academy which offers a Postgraduate Certificate in Innovation and Entrepreneurship to assist PhD students identify and exploit the value within their research.

Name & contact details for project queries, if different from PI named above:

Please indicate the graduates of which disciplines that should apply:
Physics, engineering

Ciência sem Fronteiras / Science Without Borders Priority Area:
Please indicate the specific programme priority area under which the proposed PhD project fits- choose only one (tick box):

- Engineering and other technological areas
- Pure and Natural Sciences (e.g. mathematics, physics, chemistry)
- Health and Biomedical Sciences
- Information and Communication Technologies (ICTs)
- Aerospace
- Pharmaceuticals
- Oil, Gas and Coal
- Renewable Energy
- Minerals
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