Candidate Brief for the position of:

Senior Postdoctoral Researcher

– School of Physics

(fixed term specified purpose contract, up to 5 years)

Dublin Institute of Technology

Reference (HRAG/NA/709/13)

Dublin Institute of Technology

DIT at a glance

- A history in Dublin city, dating back to 1887
- Dublin Institute of Technology was formed in 1978 and established under legislation in 1992
- Currently 19,000 students – from apprentice to PhD – in 2012
- 20% of student population come from outside Ireland
- 15% of DIT students are mature learners
- Students registered on programmes in four Colleges – Arts and Tourism; Business; Engineering and Built Environment; Sciences and Health
- Educating 9% of all higher education students in Ireland
- One of four degree-awarding bodies in Ireland
- Circa 2,500 staff members of academic, administrative and support staff
- 800 students and academic staff actively engaged in research
- Ranked in the top 3% of universities internationally by THES and QS
- 4000+ graduates each year
- Active in civic and industry engagement
- Annual budget circa €185m

For further detail, please see our DIT profile.

Dublin Institute of Technology

DIT is committed to responding to the challenges and opportunities that have emerged in Irish higher education, engaging positively in institutional collaboration both nationally and internationally, and in developing a strategy of widening participation and community engagement. We are now preparing for the next phase of our development with the relocation of all DIT activities to an integrated, state-of-the-art campus in Dublin's city centre, and to the development of the Technological University of Dublin.

College of Sciences and Health

The College of Sciences and Health at the Dublin Institute of Technology was established in 2010 and is located at DIT's Kevin Street and Cathal Brugha Street sites. The College builds on 120 years of experience in science and technology education and now offers practical, professional and career-oriented education, training and research in mathematics, computing, sciences and health. The College's mission is to support economic and societal development by providing highly skilled graduates, trained researchers and an up-skilled workforce capable of anticipating and meeting demand in competitive global sectors including Food, Pharmaceutical and Life Sciences, ICT, Green Technology, Financial Services, Education and the Allied Health Professions.

The College's strengths come from its excellent teaching staff, its successful research profile and its close ties with industry, the professions and the health sector. Almost all of its programmes are linked with industry and relevant professions through placement opportunities and other engagement activities, and its research is guided and informed by the needs of relevant sectors.

School of Physics

Physics at Ireland's Dublin Institute of Technology is active in research areas from nanotechnology & materials science to optics to medical physics and has pioneered Problem Based Learning as a delivery method for undergraduate honours Physics degrees.

The School offers Level 7 and Level 8 primary degrees (BSc), as well as masters (MPhil) and doctorate (PhD) qualifications and was the first in Ireland to offer a nanotechnology undergraduate degree. These Dublin-based DIT degrees have been designed with industry input and emphasise the applied nature of the field and may include industrial placement or opportunities for travel abroad.

The Centre for Industrial and Engineering Optics

The Centre specialises in holographic and interferometric techniques and has developed novel technologies with applications in product authentication, sensing, vibration measurement and optical device fabrication.

The Centre has been in existence for nearly fifteen years and research is carried out in well-equipped optical research laboratories in DIT Kevin Street and the FOCAS Institute.

Job Description

- **Role Overview**

The School of Physics is seeking a Physics graduate to work as a Senior Postdoctoral Researcher in the Centre for Industrial Engineering Optics. The job involves carrying out research into Photopolymer Security Devices.

The successful candidate must have an honours bachelor degree or equivalent in physics or related area and a PhD in a relevant area. Substantial research experience in optics and a good publication track record are essential. Activities will focus on both theoretical analysis and design of the devices and experimental investigation with an emphasis on commercial applicability.

This is a fixed term specified purpose appointment for up to a maximum of 5 years which will run from date of employment until the end of the purpose or until the funding for this post comes to an end, whichever is the sooner. Initial funding is in place for 12 months from the date of employment.

The purpose of this position is to undertake a mentored training opportunity on the Industrial and Engineering Optics Research Programme, working initially on the Photopolymer Security Devices project. The appointee may be assigned from project to project within the Research Programme.

One of the key objectives of the Institute is to attract and develop researchers through the provision of mentored research training opportunities in the Institute. It is intended that this opportunity will provide for intergenerational training in the methods and practice of research. It is intended that these research opportunities will provide qualified, skilled and experienced researchers for Irish employers.

- **Principal Accountabilities**

The key responsibilities of the job include:

1. Manage and conduct a specific programme of research and scholarship under the leadership of the Principal Investigator.
2. Disseminate the outcomes of this research and scholarship when agreed appropriate by the Principal Investigator and DIT technology transfer office, including peer-reviewed academic publications of international standing and/or documentation for Intellectual Property protection.
3. Where appointed to do so by DIT, supervise or co-supervise with a full time member of DIT staff, graduate research students.
4. Take responsibility for and manage and conduct administrative and management tasks associated with the programme of research.
5. Engage in appropriate training and professional development opportunities as required by the Principal Investigator.
6. Play an active role in knowledge and technology transfer activities [and intellectual property protection. Manage research grants in accordance with DIT Financial Regulations and the conditions of the funding body.
7. Prepare and present research findings to colleagues for review purposes.

8. Submit papers to appropriate journals and attend and present findings at appropriate conferences. Prepare progress reports on research for funding bodies as required.
9. Seek new areas of research and prepare and submit research bids and proposals that will enhance the reputation of DIT.
10. Participate fully in the wider research and scholarly activities of the Research Centre / Institute and College/School.
11. The post holder will carry out any other duties within the scope, spirit and purpose of the job as requested by the line manager or Director of the College/School.
12. Comply with all DIT policies and regulations, including those in relation to Research Ethics and Health and Safety.
13. Be proactive in the conduct of research and be expected to use own initiative.
14. Subject to experience, mentor Postdoctoral Research Fellows.
15. Proactively seek opportunities for further funding.

Person Specification

The ideal candidate will demonstrate the appropriate mix of knowledge, experience, skills, talent and abilities as outlined below:

Knowledge

- An Honours Degree from an approved degree awarding institution or equivalent in an appropriate discipline *(essential)*
- Research degree, a PhD or equivalent in an appropriate discipline *(essential)*
- Knowledge of research techniques and methodologies in the area of experimental Optics *(essential)*
- Knowledge in holography, holographic recording materials, photopolymers, computer generated holograms, diffractive optical components

Experience

- Evidence of a research profile and publication record within the requisite subject area *(essential)*
- Experience of research supervision
- At least one Postdoctoral Fellowship or equivalent in the public or private sector (essential)

Skills, talents & abilities

- Commitment to high quality research *(essential)*
- Effective communication and knowledge transfer skills with the ability to present complex information effectively to a range of audiences *(essential)*
- Ability to work collaboratively and as part of a team to an agreed work plan
- Record of having secured independent, competitive research funding

Eligibility to compete

This is a mentored research training post and, is, therefore not open to applicants who have previously availed of or benefitted from a similar mentoring or training post within the Institute. It is expected that the appointee will complete mentored research training with the Institute which will cease on expiry of the fixed term specified purpose. The expectation is that successful appointee will, at that point, further their knowledge and development in a different research environment.

Citizenship / Permit Requirement:
Eligibility to compete is open to candidates who are citizens of the European Economic Area (EEA) or Switzerland. The EEA comprises member states of the European Union along with Iceland, Liechtenstein and Norway. Other candidates may be eligible to compete subject to their having or obtaining an appropriate work permit for the nature and duration of the position.

Former Public Service employees:
Eligibility to compete may be affected where applicants were formerly employed by the Irish Public Service and previously availed of an Irish Public Service Scheme including:
- Incentivised Scheme for Early Retirement (ISER)
- Department of Health and Children Circular (7/2010)
- Collective Agreement: Redundancy Payments to Public Servants

Applicants should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. This is a non-exhaustive list and any queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

Terms and Conditions of Employment

A full statement of terms and conditions of employment will be given to the successful applicant in accordance with Terms of Employment (Information) Acts 1994 and 2001.

The main terms and conditions of employment are as follows:

Tenure:

This is a fixed term specified purpose appointment for up to a maximum of 5 years which will run from date of employment until the end of the purpose or until the funding for this post comes to an end, whichever is the sooner. Initial funding is in place for 12 months from the date of employment.

One of the key objectives of the Institute is to attract and develop researchers through the provision of mentored research training opportunities in the Institute. It is intended that this opportunity will provide for intergenerational training in the methods and practice of research. It is intended that these research opportunities will provide qualified, skilled and experienced researchers for Irish employers.

The work on this Research Programme is carried out by Postdoctoral Research Fellows and Senior Postdoctoral Research Fellows and is a quasi-autonomous research activity. The mentoring PI will advise the appointee on the conduct of their research which itself will be part of a research programme that the Principle Investigator (PI) is responsible for. The intention is that during the employment of the appointee, they will avail of learning opportunities provided by DIT and/or external agencies related to their particular research programme or research practise in general. At the completion of the Senior /Postdoctoral Research Fellowship period, the appointee will be expected to leave the Institute and continue their academic formation and development in a different research environment. At the completion of the mentored training period, the appointee should be in a position to take up employment as a fully autonomous researcher with another employer.

Salary:

This post will be remunerated at point (01) of the Senior Postdoctoral Fellow Salary Scale.

€42,394 (pro-rata per annum)

€38,154.60 (pro-rata per annum) (10% reduction in the pay of new entrants to the public service contained in the National Recovery Plan applies)

Hours of work:

A 37 hour working week is in operation. Hours may be adjusted from time to time under sectoral agreements

Probation:

The terms of the Institute's Staff Induction and Probation Policy will apply.

Annual leave:

Annual Leave and Public Holidays shall be granted as per the Holidays (Employees) Act 1973 and Organisation of Working Time Act 1997. The annual leave for this post is currently 23 days per annum inclusive of any compulsory annual leave days as determined by the Institute.

Retirement:

The appointee will have no entitlement to join the Institute's occupational pension scheme/s. However, a PRSA (Personal Retirement Savings Accounts) scheme is in place; a PRSA is a contract between an individual and the authorised PRSA provider in the form of an investment account which may be used to save for the individual's retirement. The Institute has appointed Cornmarket

Financial Services as PRSA provider and they currently offer the Eagle Star/Zurich PRSA. For further information, please contact our Pensions Section via e-mail at pensions@dit.ie.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Sick Leave:

Up to 7 single days' per two years uncertified sick leave plus a maximum of 14 days certified sick leave per annum pro rata may be granted. Pro rata sick leave entitlements will apply to contracts of less than one year's duration. Payments in respect of sick leave will be adjusted by reference to any disability benefit received from the Department of Social Protection.

Other conditions:

Nature of the post:

This post is offered on a wholetime fixed term specified purpose basis from the date of commencement of employment up to a maximum of 5 years or earlier date if the funding for this post comes to an end. The initial funding is available for a 12 month period.

The provisions of the Dublin Institute of Technology Act, 1992 to 2006 and any subsequent Acts replacing or amending these Acts and any orders and regulations made under these Acts will apply.

External Funding

This contract post is a fully "externally funded post" as envisaged by the Employment Control Framework for Higher Education Sector' published by the Higher Education Authority pursuant to the Moratorium on Recruitment and Promotions in the Public Service as a currently implemented by the Government. It is a condition of this contract that if such external funding ceases or if the Institute is obliged to terminate the post for other reasons outside of its control (such as State policy), a redundancy will arise in respect of this position.

Application Process

Application Form

Applications will be accepted through the online application service at www.dit.ie/vacancies. A CV will be required in addition to the application form. All correspondence from the Institute regarding your application will be by email. Please ensure that the security filters on your email provider will accept emails from DIT.

Closing Date

The closing date for applications is **5 pm on Friday, 14th March 2014**. Late applications will not be accepted.

Contact information

For further information about this post please contact: Dr Izabela Naydenova at 01 402 4811.

For queries regarding the application process, please contact Magda Machelak by email at magdalena.machelak@dit.ie or call (01) 402 3334 between 9.30 and 5.00pm, Monday to Friday or email hr@dit.ie.

Further Information for Candidates

Canvassing will automatically disqualify.

Late applications will not be accepted.

You are also advised that you can only submit one application per competition. Should you have any issues with your submission, please contact us.

Candidates will be shortlisted based on the information contained in the application form.

It is Institute policy to seek written references from your referees, one of whom must be your current or most recent employer. Candidates are advised to please ensure the nominated referees are aware of this requirement.

DIT is an equal opportunities employer.

DIT operates a policy of Garda Vetting & Disclosure of Criminal Convictions. All applicants will be asked to disclose criminal convictions and may have to undergo Garda Vetting as part of the selection process.

Persons appointed for the first time to a wholetime position within the Institute will be required to furnish:
- a satisfactory Health Certificate from a medical practitioner nominated by the Institute;
- as evidence of age, a certified extract from a Public Register of Birth;
- a passport (if a passport is not currently held, a birth certificate and a form of photographic identification is required);
- Proof of PPS Number (e.g. social services card);
- Income Tax - Certificate of Tax-Free Allowance or Cessation Certificate (P45 Form);
- Qualifications: the successful candidate will be required to submit parchments of Degrees, Diplomas, Certificates and other professional qualifications.

DIT acknowledges the support of the European Regional Development Fund in supporting research and research training initiatives.