Post Specification

Post Title:	Post-Doctoral Researcher
Post Status:	18-month contract, full-time
Department/Faculty:	The Telecommunications Research Centre (CTVR) School of Computer Science and Statistics
Location:	CTVR, the Telecommunications Research Centre
Reports to:	Dr. Marco Ruffini and Prof. David Payne
Salary:	€37,750 - €44,930 (commensurate with experience)
Closing Date:	12 Noon on Monday 31st March, 2014

The successful candidate will be expected to take up the post no later than May 2014 or as soon as possible thereafter.

Post Summary

CTVR (www.ctvr.ie) is Ireland's largest telecommunications research centre. The Centre carries out industry-informed research focusing on wireless and optical networks of the future with a strong emphasis on the technologies that will underpin these networks. This position, under the direction of Prof. David Payne and Dr. Marco Ruffini, is funded by Science Foundation Ireland (SFI).

Background to the Post

A post-doctoral researcher position in **Passive optical network protocol simulation and implementation in FPGA platform** is available at CTVR – The Telecommunications Research Centre, at Trinity College Dublin. Positions are funded by the FP7 framework, and the candidate will work on an Integrated Project, in collaboration with other major European partners.

Standard duties of the Post
These will include optical network protocol simulations and FPGA hardware programming.

Funding Information
€37,750 - €44,930 (commensurate with experience)

Person Specification

Qualifications
The candidate must have a PhD or equivalent technical experience in the area of Electrical Engineering, Computer Engineering, Computer Science, or a related field, with a track record of research in optical communications and networks.

Knowledge & Experience

Experience in optical communications and networks is essential.

Desirable qualifications include:

- Strong background in FPGA hardware programming
- Experience with PON and TDM protocols study and simulation is highly desirable
- Experience in building and running software simulation tools is highly desirable
- Good working knowledge of software programming languages (e.g., c++, python, matlab)
- Established track record of publication in leading journals/conferences, on topics such as DBA algorithms, switching and routing, optical access and core networks
- Solid written and oral communications skills
- The ability to work well in a group, and the ability to mentor junior researchers, such as PhD students.

Skills & Competencies

The ideal candidate will have a background in optical communications and networks and experience in FPGA hardware programming.

Area Summary

General Department Information

CTVR, the Telecommunications Research Centre

CTVR carries out industry-informed research in wireless and optical networking for telecommunications. We have particular expertise in the kinds of technologies that will make networks flexible and evolvable and able to withstand change.

We live in a time of unprecedented change. Traffic on our telecommunication networks has grown exponentially in the last decade. Many of the services and applications that exist now were not even imagined a few years ago. Though we can extrapolate some trends and make educated guesses, we cannot predict exactly what lies ahead. Networks that are designed with change in mind will be more robust to disruption caused by growing demands and changing user patterns and yet-unimagined applications. The risks associated with investment in these kinds of networks will be lower as they will be more durable and scalable. Networks that are designed with change in mind will make effective use of resources (e.g. spectrum, bandwidth, power, processing capabilities, cooling capabilities etc.) and ensure a sustainable future.

For further information please visit the website:
http://www.ctvr.ie/

Trinity College Dublin

Founded in 1592, Trinity is at the nexus of tradition and innovation, offering undergraduate and postgraduate programmes across 24 schools and three faculties: arts, humanities, and social sciences; engineering, maths and science; and health sciences. Spread across 47 acres in Dublin's city centre, Trinity's 17,000-strong student body comes from all 32 counties of Ireland, and 16% of students come from outside the country. Of those, 40% are from outside the European Union, making Trinity's campus cosmopolitan and bustling, with a focus on diversity.

As Ireland's leading university, the pursuit of academic excellence through research and scholarship is at the heart of the Trinity education. Trinity is known for intellectual rigour, excellence, interdisciplinarity, and research-led teaching. Home to Nobel prize-winners such as scientist Ernest Walton and writer Samuel Beckett, Trinity draws visitors from across the world to its historic campus each year, including to the Book of Kells and Science Gallery which capture the university's connection to both old and new.

Trinity accounts for one-fifth of all spin-out companies from Irish higher education institutions, helping to turn Ireland into an innovation-intensive, high-productivity economy. That culture of innovation and entrepreneurship is a defining characteristic of our campus as we help shape the next generation of job creators.

Trinity has developed significant strength in a broad range of research areas, including the 19 broadly based multi-disciplinary thematic research areas.

TRINITY'S RESEARCH THEMES

INCLUSIVE SOCIETY
INTERNATIONAL DEVELOPMENT
INTERNATIONAL INTEGRATION

AGEING

CANCER

INTELLIGENT CONTENT & COMMUNICATION
MATHEMATICS OF COMPLEXITY

CREATIVE ARTS PRACTICE

CREATIVE TECHNOLOGIES

NANOSCIENCE

NEUROSCIENCE

DIGITAL HUMANITIES

NEXT GENERATION MEDICAL DEVICES

GENES & SOCIETY

SMART & SUSTAINABLE CITIES

IDENTITIES IN TRANSFORMATION

SUSTAINABLE ENVIRONMENT

IMMUNOLOGY, INFLAMMATION & INFECTION

TELECOMMUNICATIONS

Ireland's first purpose-built nanoscience research institute, CRANN, houses 150 scientists, technicians and graduate students in specialised laboratory facilities. Meanwhile, the state-of-

the-art Biomedical Sciences Institute is carrying out breakthrough research in areas such has immunology, cancer and medical devices.

The Old Library, which houses the Long Room, in Trinity is the largest research library in Ireland, with a collection of six million printed items, 500,000 maps, 80,000 electronic journals, and 350,000 electronic books. Some of the world's most famous scholars are graduates of Trinity, including writer Jonathan Swift, dramatist Oscar Wilde, philosopher George Berkeley, and political philosopher, and political theorist Edmund Burke. Three Trinity graduates have become Presidents of Ireland - Douglas Hyde, Mary Robinson and Mary McAleese.

Trinity is the highest ranked university in Ireland, and among the world's leading higher education institutions.

Pension Entitlements

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

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.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

Equal Opportunities Policy

Trinity College Dublin is an equal opportunities employer and is committed to the employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community.

TRINITY COLLEGE DUBLIN
COLÁISTE NA TRÍONÓIDE, BAILE ÁTHA CLIATH
THE UNIVERSITY OF DUBLIN

Application Procedure

Candidates should submit a cover letter together with a full curriculum vitae to include the names and contact details of 3 referees (email addresses if possible) to marco.ruffini@tcd.ie

Dr. Marco Ruffini,
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Trinity College Dublin,
Fenian Street,
Dublin 2