The Purpose of the Role:

The School of Computer Science and Statistics at Trinity College Dublin is a collegiate, friendly, and research-intensive centre for academic study and research excellence. The School has been ranked #1 in Ireland, top 25 in Europe, and top 100 Worldwide (QS Subject Rankings 2018, 2019, 2020, 2021).

The School is seeking to appoint an Associate Professor in Computer Science, who will join the Discipline of Software and Systems. The Associate Professor will be a full faculty member, and as such will be expected to innovate in both research and teaching, to assist in the administration and mission of the School and contribute to the wider research community. The appointee should have already demonstrated their potential to develop into a leader in their field of research, along with the ability to establish with a world-class research programme at Trinity College Dublin.
Context:

The successful candidate will be an excellent researcher and lecturer with a strong international research track record and clear potential for research leadership. They should have a strong commitment to research-led undergraduate and postgraduate teaching and a demonstrated capacity/potential to attract research funding and develop a world-class research programme.

Applications are encouraged from candidates working in areas including, but not limited to:

- Software engineering (SE) such as model-driven SE, empirical SE, automated SE, software analysis, configuration and optimization, design-space exploration, social SE
- Programming languages, such as language design, compilers, concurrency
- Formal methods, such as verification tools, program analysis, type systems
- Embedded systems, such as low-energy computing, resource-constrained AI, resource allocation
- Parallel computing, such as embedded multicore, vector SIMD, GPU, synchronization, algorithm design

The successful applicant must have a PhD in Computer Science or a related discipline. The School particularly welcomes applicants who will play an active role in interdisciplinary research within the School, the E3 initiative, and the University. The E3 initiative is an ambitious project to expand education and research activities across three of its Schools: Computer Science and Statistics, Engineering, and Natural Sciences.

The School will support the successful applicant with funding to recruit one PhD student. Furthermore, the post holder can seek further PhD funding under the Science Foundation Ireland (SFI) funded Centres for Research Training (CRTs) hosted in the School which offer PhD positions in areas relevant to Software and Systems. The successful candidate can join Lero – the Irish Software Research Centre, which is funded by SFI and benefit from its large and diverse streams of research funding, particularly in collaboration with industry. With its CRTs and SFI Research Centres, the School offers significant opportunities for faculty to advance their research.
**Main Responsibilities:**

**Research:**
The appointee should have a desire to become a *thought leader* and a *researcher of repute* within their chosen research area. As part of their research duties, the appointee is *required* to engage in research and is required to disseminate their research in high impact academic publications: journals, conferences, or other outlets as appropriate. The appointee is encouraged to actively pursue initiatives by which to seek/secure funding for research in their own field and/or interdisciplinary or multidisciplinary research as appropriate. The appointee is also required to participate in postgraduate research supervision including student recruitment, thesis definition, preparation, advice and regular advisory and guidance meetings.

**Teaching:**
As part of normal teaching duties, the appointee will give instruction and supervision, as directed by the Head of School (or designated Head of Discipline), to undergraduate and postgraduate students of the University in courses and programmes organised by the School.

Such duties include curriculum and course design, preparation and delivery of lectures, tutorials and general examination and other assessment duties. The appointee is also required to be available to students for academic guidance and advice. In some disciplines, academic activities may also include laboratory, workshop or clinical instruction, supervision of fieldwork, site visits and other off-campus activities.

**Contribution and Scholarly Activity:**
As part of the contribution to the School and University, the appointee is required to participate in academic administration at School level (as directed by the Head of School), and/or University level. In representing the University externally, the appointee is required to maintain the highest professional standards. The appointee is also required to commit to engage in scholarly activity such as, but not limited to, refereeing for journals, external examining, membership of learned societies, advisory bodies and peer review panels.
**Person Requirements**

The role-holder will require the following knowledge, skills and attributes for successful performance in the role:

**Qualifications**

- The successful candidate must have a PhD in Computer Science or a related discipline.

**Knowledge and Experience:**

The successful candidate will be expected to clearly demonstrate the following:

**Research:**

**Essential:**

- Proven record in research publication, supervision, and an ability to contribute to the field of Software and Systems.
- Demonstrate research plans that complement the strategic plans of the School of Computer Science and Statistics.
- Evidence of a sustained record of high-quality research and publication in Software and Systems.
- Experience of recruiting and supervising research postgraduate students.
- Participation in research conferences and seminars.
- Ability to engage in research collaboration with industry and across disciplines.
- Clear potential to secure competitive research funding.

**Desirable:**

- Demonstrated ability to secure competitive research funding.
- Demonstrated ability to lead and oversee research projects.
- Evidence of research collaboration with industry, society and universities.

**Teaching**

**Essential:**
• Ability to provide lectures and practical classes in Computer Science to undergraduate and postgraduate students.
• Evidence of a personal commitment to excellence in teaching.
• Excellent communication and interpersonal skills.
• Experience of supervising undergraduate and postgraduate dissertations.
• Experience of developing new modules and teaching material.

Desirable:
• Experience of using innovative teaching methods.
• Evidence of high-quality teaching.
• Experience of working collaboratively and effectively in an inter and multidisciplinary environment.

Engagement with the Discipline/Society

Essential:
• Experience of reviewing papers for scholarly journals and conferences

Desirable:
• Experience of organizing scholarly events
• Experience of engagement with the public on matters of research or education
• Experience of contributing to the wider work of a university or research institution

Expected Skills and Competencies
• Career driven, enthusiastic and highly motivated.
• Excellent communication skills.
• Good organizational skills.
• Strong leadership skills.
• Ability to work effectively as member of a team.
• Honesty and integrity.
• Ability to be flexible when necessary.
• Willingness to contribute to the Discipline, School, College and the wider community.
• Ability to take the initiative.
• A commitment to own professional development.

In addition, candidates will be assessed on their potential contribution to the School, College and the wider community.
Application Information

Applicants should provide the following information:

1. A comprehensive curriculum vitae, including a full list of publications.
2. The names and contact details (i.e. addresses, e-mail, etc.) of three referees.
3. A research plan summarising research to be carried out in the next two years and including sources of funding – max 2 pages.

PLEASE NOTE: Candidates who do not submit this additional information may not be considered for shortlisting.

Candidates should note that the interview process for this appointment will include the delivery of a presentation to the School.

Further Information for Applicants

For further information about the School of Computer Science and Statistics, see: https://www.scss.tcd.ie/

For further information about Trinity College Dublin, see:
https://www.tcd.ie/
https://www.youtube.com/watch?v=DbZALsDfLuU
https://www.youtube.com/watch?v=3YN6asK2ixw

Candidates wishing to discuss the post informally and in confidence should email Professor David Gregg, Head of the Discipline of Software and Systems: David.Gregg@tcd.ie and/or Professor Gregory O'Hare, Head of School of Computer Science & Statistics: Gregory.OHare@tcd.ie