Professor of Statistics (1965)
The E3 initiative will be without precedent in Ireland, and among the first internationally to integrate engineering, technology and scientific expertise, at scale, to address some of the grand challenges facing our country and our world.

The E3 Vision

Trinity College Dublin is embarking on an ambitious project to expand education and research activities across three of its Schools: Computer Science & Statistics, Engineering, and Natural Sciences. Recognising the importance for humanity of addressing the challenge of sustainable technological development, the expansion of the three Schools is being executed as a single strategic activity - the E3 initiative.

The E3 initiative is premised on the realization that:

- human inquisitiveness is unquenchable and the need and desire for advanced technologies is a positive characteristic of the human spirit; and
- the natural capital of the planet is finite and should be used to provide flows of goods and services sustainably and equitably.

With the E3 initiative, Trinity promotes the vision of a society where the interdependence between technological innovation and our natural capital is advanced by world-leading research, education and entrepreneurship.

The E3 initiative will position Ireland at the forefront of research in Science, Technology, Engineering, and Mathematics (the STEM disciplines), that are crucial for future economic competitiveness. It will educate engineers and scientists for employment in existing and new technology sectors, equip them with the skills and attributes to lead in the creation of new businesses, and place Ireland in a leadership role globally for the quality of graduates in the STEM disciplines.
Inherently curious and creative, humanity will always seek to both understand the world around us and to create tools, systems and processes that enhance their quality of life. As our understanding of the world grows, we now know better the effects, both positive and negative, that our way of living has on the world around us. These effects lead to challenges that are inherently global, multidisciplinary and complex in nature. The E3 initiative will be among the first internationally to integrate engineering, technology and scientific expertise at scale in addressing some of the biggest challenges facing Ireland and the world – challenges such as climate change, renewable energy, personalised data, water, connectivity, and sustainable manufacturing, among many others.

The span of E3 research has been defined using six Research Themes:

- **Environment** E3 will undertake research for discovery, sustainable use, restoration, renewal and investment in our natural capital for the benefit of society, the economy and biodiversity.
- **Resources** A pro-active interdisciplinary approach to harnessing, distributing and developing new resources offers a way towards greater sustainability ensuring the future liveability of our planet.
- **Production** E3 will address the challenge of resource efficiency, nature inspired data-driven production solutions, networked production and the creation of new value models based on data and service.
- **Data** The ability to discover knowledge and to realise intelligent decision-making systems from underlying data resources is crucial to support sustainability and the health of life on the planet.
- **Well-being** Emerging biomedical technologies have the potential to make a transformative impact on our quality of life, E3 will assist to change the dynamics of healthcare and enhance the well-being of future generations.
- **Cities** An interdisciplinary approach is needed to address enduring and emerging urban societal challenges, stimulate sustainable urban transitions, build the dynamics of urban resilience and enhance the liveability of all cities globally.
E3 Education

The role of specialists in understanding and shaping developments in these areas will continue to be as important, or more important, than it has been to date. Increasingly, however, humanity will require specialists who can contextualise their knowledge in broader circles and who can efficiently and effectively work with experts from other disciplines. The E3 Schools will develop their educational provision in such a way that their graduates will have a strong understanding of these global challenges, as well as the disciplinary skills to address them.

New undergraduate and postgraduate courses will be created in the area of the six E3 Research Themes. This will be achieved by enabling all students in the E3 Schools, including all its constituent disciplines, to have an experience of learning and working in a multidisciplinary environment, being educated by world leading experts in areas of their specialisation and benefiting from best-in-class pedagogy. The resulting graduates will be flexible, adaptable and creative individuals who bring deep disciplinary knowledge and problem-solving expertise to any problem with which they are presented.

They will be highly sought after by indigenous and multinational companies in Ireland and will be equipped and ready to work in an international context if that is their chosen route. During their studies, E3 students will have the opportunity to follow their passions, both inside and outside their chosen disciplines, supported by a flexible and responsible academic support system that allows the abilities of each student to flourish.

The educational environment in Trinity College Dublin, plus the specific learning opportunities offered by the E3 initiative will create graduates that:

- have strong technical competence in their chosen discipline;
- will be comfortable and experienced working in teams, including with specialists from other disciplines;
- will be comfortable working on poorly-defined and multidisciplinary challenges;
- will be able to make informed and ethical decisions that balance technical, social and environmental considerations;
- will be skilled communicators across a range of platforms and to varying audiences;
- have an ability to think at multiple levels of detail and abstraction;
- will be comfortable in both practical and theoretical contexts;
- will be able to confront the limitations of their own knowledge and to address these limitations through collaboration and life-long learning.
Ireland’s population of school-leavers will increase every year to 2028, a rate greater than almost any other country in the developed world. The growing attractiveness of environmental, engineering and technology careers to Irish young people is an amazing success story and Trinity is planning the construction of a new building—the E3 Foundry—to house the first phase of the initiative.
The University of Dublin, Trinity College, invites applications for the position of Professor of Statistics. The successful candidate will provide strong academic leadership in research, teaching and supervision in Statistics. The Professor will also fill a critical research gap linking Statistics with Computer Science and exploit the synergies that exist therein.

The successful candidate will be an internationally recognized scholar in research areas related to Statistics and Data Science, and will provide a leading interdisciplinary role across the School and College. An internationally recognized research profile, with a demonstrated ability to raise research funding and a proven capacity to collaborate with industry in domains such as (but not limited to) business, cultural entertainment, education, health, telecommunications and utilities is essential. An excellent track record in teaching and supervision is also required.
Post Specification

Post Title:            Professor of Statistics (1965)
Post Status:          Permanent
School:               School of Computer Science and Statistics, Faculty of Engineering, Mathematics and Science
Location:             O'Reilly Institute
Reports To:           Head of School, School of Computer Science and Statistics
Salary:               Appointment will be made on the Professor salary scale (€114,740 - €140,961 per annum) at a point in line with Irish Government Pay Policy
Closing Date:         12 Noon (GMT), Friday 12th October 2018

This position is tenable from 1st January 2019.

The successful candidate will be expected to take up the post by 1st January 2019 or as soon as possible thereafter.

Please note that Garda (Police) vetting will be sought in respect of the successful candidate for the post.
Role of the Professor

Professorship is the highest academic post within the University. The holder of a Professorial position plays a central leadership role in the development of the relevant discipline and represents it at a senior level inside and outside the University. The qualifications for appointment to such a position are as follows: high academic distinction with the capacity to provide leadership in the development of the subject and in the promotion of teaching and research; capacity to represent effectively the discipline inside and outside the University; and capacity to act as Head of an academic Discipline or School.

The School of Computer Science and Statistics has 7 “Professors of”, 6 “Professors in”, 11 Associate Professors and 41 Assistant Professors. The School hosts the Science Foundation Ireland (SFI) Research Centre in Digital Content Technology (ADAPT), the SFI Research Centre for Future Networks and Communications (CONNECT), and the Enterprise Ireland Centre for Learning Technology (Learnovate). The School also participates in other SFI Research Centres (Insight and Lero). In addition, the School leads several interdisciplinary Research Themes and Centres within Trinity (https://www.tcd.ie/research/themes/), e.g. Digital Engagement.

The successful candidate will take an active role in further strengthening the on-going research within the area of Statistics and will also fill a critical research gap linking Statistics with Computer Science and Data Science and exploit the synergies that exist therein. Existing avenues of research include complex data modelling, statistical computation, Bayesian methods, stochastic optimisation, decision theory, risk and reliability.

The successful applicant will contribute to the development of the very successful Management Science and Information Systems (MSISS) undergraduate degree, the large number of statistics modules on the Mathematics degree and the evening Postgraduate Certificate in Statistics. The Professor is also expected to enhance the profile and quality of the newly established Data Science stream of the MSc in Computer Science.

The Professor will also be required to: contribute to the stimulating and supportive work environment that attracts high calibre researchers and encourage their contribution to scholarship; to strengthen links among researchers across Schools within Trinity College and between Trinity College and external, non-university organizations; and to engage in research initiatives on a national and international front, allowing Trinity College to make a distinctive contribution to the intellectual life of the country and internationally.
Duties of the Post

The Professor will be required to:

- Engage in research both on an individual and collaborative basis and be active in seeking research funding for same.

- Exercise a defining leadership role in the development of the field of Statistics and Data Science, both within the School of Computer Science and Statistics and at national and international levels.

- Contribute to the undergraduate and postgraduate teaching programmes of the School, particularly during the first years, and to ensure the delivery of research-led teaching.

- Supervise undergraduate and postgraduate students.

- Play a leading interdisciplinary role across the School and University, with input into existing shared initiatives including Trinity research themes.

- In accordance with university regulations, the appointee may be expected to stand for election to the position of Head of School. The appointee will also be expected to play an interdisciplinary role in the Faculty and across the university and participate in the overall life of the university, and may from time to time be called upon to contribute in other capacities.
Qualifications and Experience
The successful candidate must have:

- A doctoral degree in Statistics or other related discipline, with a strong focus on research, a sustained record of high quality published research output, high achievement in teaching and research supervision, and a record of service to the discipline and strong engagement with university and wider communities. International research or teaching experience is desirable.

The successful candidate must show evidence of the ability to:

- Head the discipline of Statistics, with skill and talent in strategic planning, and the capacity to mentor staff in the School, including acting as Head of School if required.
- Lead a world-class research programme in his or her own field, publishing in the highest quality journals and raising significant national and international research funds.
- Design and deliver undergraduate and graduate teaching and assessment, including supervising postgraduate and undergraduate students, at a level commensurate with leadership responsibilities in the School.
- Integrate Statistics teaching and research into different fields.
- Demonstrate inspirational leadership and the ability to develop a strategic vision for the School and to contribute to the strategic direction of the University, including a record of significant service at School and University level, and evidence of the ability to play a key role in the development of inter-institutional research collaborations, nationally and internationally.
- Demonstrate a strong track record of collaboration with industry and/or successful application of their research.
- Engage with researchers from a range of disciplinary backgrounds.
- Contribute to society through significant outreach and related activities that ensure the development of the understanding and impact of statistical research.
- Engage effectively with key stakeholders, including other Schools of Statistics, industry and various governmental bodies and agencies.
- Collaborate with colleagues in the School and the Trinity Foundation to seek philanthropic and other funding for the School and the College.
- Deliver leadership to the Statistics research community, for instance, through membership of international societies, committees, editorial boards and through reviewing and refereeing activities.
- Demonstrate interdisciplinary approaches to research and an ability to work with researchers from a range of disciplinary backgrounds.
- Demonstrate excellent interpersonal skills and an ability to present and communicate ideas and concepts clearly.
- Construct curricula and demonstrate commitment, innovation and flair in devising and delivering modules in Statistics at both undergraduate and postgraduate level.
- Deliver excellence in teaching and supervision at undergraduate and postgraduate level.
Discipline of Statistics and Information Systems

The Discipline of Statistics and Information Systems consists of thirteen full-time academics. Research in Statistics is primarily concerned with developing and applying the principles of statistical inference and decision theory to a wide variety of areas of science, engineering and the biosciences. Current examples include social networks, system and software reliability and risk, environmental science and astronomy. The Discipline also conducts research in collaboration with the SFI Insight Centre for Data Analytics.

Useful Websites

School of Computer Science  https://www.scss.tcd.ie
Discipline pages  http://www.scss.tcd.ie/disciplines/statistics/
Trinity College Dublin  http://www.tcd.ie/
Human Resources  http://www.tcd.ie/hr
School of Computer Science and Statistics

The School of Computer Science and Statistics (SCSS) comprises the academic disciplines of Artificial Intelligence, Networks and Distributed Systems, Graphics and Vision, Software and Systems, and Statistics and Information Systems. The School was established in July 2005 from a merging of two long-established departments: Computer Science and Statistics. Synergies in areas such as digital content, telecommunications, computer vision and ubiquitous computing, combined with cutting edge statistical learning research has provided a rare environment in which today members of SCSS exploit the emergence of data and its analysis as a driver in many fields of computer science and statistics.

Comprising 65 academics and over 100 research staff, the School is internationally recognised for the quality of its research and teaching and is ranked in the top 100 Computer Science Schools worldwide as well as the highest ranked in Ireland. The School hosts two Science Foundation Ireland (SFI) Research Centres: ADAPT and CONNECT, leads the ENABLE SFI research spoke on Internet of Things, and is a partner in a further two: Lero and Insight. Also, four of TCD’s multidisciplinary research themes, namely Creative Technologies, Digital Humanities, Digital Engagement, and Smart Sustainable Cities are led by members of SCSS. The School currently coordinates six European Commission projects and is partner in a further seven. The School signed research contracts in excess of €50 million over the last three years from a range of national and international agencies such as Science Foundation Ireland (SFI), Enterprise Ireland as well as the European Commission’s Seventh and Horizon 2020 Framework Programmes.

The School offers a wide range of undergraduate and postgraduate degree programmes on which approximately 1200 students are registered this year. In addition, the School offers opportunities for higher degrees by research and there are currently over 150 registered PhD students in the School.
Trinity College Dublin, the University of Dublin

Trinity is Ireland’s premier university, with a proud tradition of excellence stretching back to its foundation in 1592. The oldest university in Ireland, and one of the oldest in Europe, today Trinity sits at the intersection of the past and the future, and is ideally positioned as a major university in the European Union. Our 47-acre campus is located in the heart of Dublin city centre and is home to historic buildings dating from the University’s establishment, as well as some of the most cutting-edge teaching and research facilities in Ireland. Students at Trinity benefit from a unique educational experience across a range of disciplines in our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences. The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success.

Trinity has developed 18 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. These internationally recognised themes include such diverse areas as Cancer, Immunology, Telecoms, Identities in Transformation, Nanoscience, Neuroscience, and Making Ireland. Researchers from across the University work together in innovative ways to develop new and exciting approaches to their research and explore the frontiers of knowledge in the 21st century. In creating these dedicated research themes, Trinity’s researchers are able to become a more powerful force on the global stage, successfully competing for large-scale grants and attracting top students and faculty to the University. Trinity is home to Ireland’s first purpose-built Nanoscience research institute, CRANN, which opened in January 2008. This state-of-the-art facility houses 150 scientists, technicians, and graduate students in specialised laboratories, fostering creative innovations that have seen Trinity’s researchers make significant breakthroughs.

The Trinity Long Room Hub for Arts and Humanities Research Institute is the University’s flagship institute for research in the Arts and Humanities, providing a world-class environment for cross-disciplinary collaborative projects. The Long Room Hub provides a central location through which the University’s internationally respected Arts and Humanities research can become more visible, demonstrating its relevance for contemporary and future societies. Researchers from across the University regularly participate in debates on topical issues facing the world today. As well as operating an International Visiting Research Fellowship programme, the Long Room Hub also hosts major EU-funded Digital Humanities projects.
One of the most instantly recognised parts of Trinity’s campus is the famous Old Library, home to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps, and early printed material. Trinity’s Library is the largest research library in Ireland and is an invaluable resource to Trinity’s students and research community. Built up over the four centuries of the University’s existence, the Library’s collections have benefitted from its status as a Legal Deposit library for the past 200 years, granting Trinity the right to claim a copy of every book published in Ireland and the UK. At present, the Library’s holdings span approximately 4.25 million books, 22,000 printed periodical titles, and access to 60,000 e-journals and 250,000 e-books.

Trinity attracts top students from Ireland and abroad and prides itself on the consistently high standard of student admitted to the University every year. These students are drawn to Trinity for the excellence of our research-led teaching and for the quality and prestige a degree from this University confers. Trinity has also pioneered accessibility to education in Ireland, becoming the first university in the country to reserve 15% of its undergraduate places for students from non-traditional learning groups. Trinity is the top-ranked European university for student entrepreneurship and Europe’s only representative in the world’s top-50 universities for student entrepreneurship.

Our alumni have gone on to shape the history of Ireland and of Western Europe in a wide range of fields. These include such notable figures as Jonathan Swift, Oscar Wilde, William Rowan Hamilton, Edmund Burke, William Stokes, Denis Burkitt, Louise Richardson, Lenny Abrahamson, and Anne Enright. Three of Trinity’s graduates have been awarded Nobel prizes: Ernest Walton for Physics in 1951; Samuel Beckett for Literature in 1968; and William Campbell for Physiology / Medicine in 2015. Trinity also counts the first female President of Ireland among its alumni in Mary Robinson, as well as other notable former Presidents Douglas Hyde and Mary McAleese. At Trinity, we are justifiably proud of our tradition, and we strive to uphold this excellence as we face the demands of the 21st century.
Trinity is the top ranked university in Ireland. Using the QS methodology we are ranked 88th in the world and using the Times Higher Education World University Rankings methodology we are 117th in the world.

Overall
- Trinity is Ireland’s No.1 University in the QS World University Ranking, THE World University Ranking and the Academic Ranking of World Universities (Shanghai).
- Trinity is ranked 88th in the World, and 29th in Europe, in the 2017/2018 QS World University Ranking.
- Trinity is ranked in the Top 100 for Graduate Employability in the QS 2017 Rankings.
- Trinity is in the Top 50 most innovative universities in Europe according to Reuters.
- Between 2010 and 2015, Trinity was ranked the top university in Europe for entrepreneurship according to Pitchbook’s independent analysis.

Internationalization
- Trinity is ranked 52nd in the world in the THE World University Ranking for international outlook.

Research Performance
- Of the 981 institutions included in the THE World University Rankings for 2017, Trinity is in the top 15% internationally for research performance.
- Trinity is ranked in the top 15% internationally by QS for citations.

In the QS World University Rankings:
- Trinity featured in the world’s elite (Top 200) institutions in 25 of the 28 subjects in which it was evaluated by the QS World University Rankings by Subject in 2015. Of these, Trinity ranked in the top 100 in the world in 14 subjects and in the top 50 in the world in 6 subjects: English Language and Literature; Nursing; Politics and International Studies; History; Biological Sciences; and Modern Languages.
- In three out of the last four years, Trinity has been consistently ranked in the Top 50 worldwide for the following areas: English Language and Literature; Nursing; Modern Languages; and Politics and International Studies.
- In the QS Faculty rankings, Trinity has been consistently ranked in the Top 100 globally for Arts and Humanities over the last four years.
The Selection Process in Trinity

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessors who are expert in the area.

Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named Recruitment Partner immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, Trinity College Dublin regrets that it may not be in a position to offer alternate selection dates. Where applicants are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to applicants and are issued no later than 5 working days following the selection day.

In some instances, the Selection Committee may avail of telephone or video conferencing. Trinity College Dublin’s selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by applicants in their application (Cover Letter, CV, statements etc.) will be used to shortlist for interview.


- Non-EEA applicants should note that the onus is on them to secure a visa to travel to Ireland prior to interview.
- Non-EEA applicants should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

Equal Opportunities Policy

Trinity is an equal opportunities employer and is committed to 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. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity’s Diversity Statement can be viewed in full at https://www.tcd.ie/diversity-inclusion/diversity-statement.

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.

GARDA Clearance

Garda (Police) vetting will be sought in respect of the successful candidate for the post. PLEASE NOTE: The successful candidate will be required to complete and return a Garda vetting form. This form will be forwarded to An Garda Síochána (Irish Police) for security checks on all Irish addresses at which they have resided. An Garda Síochána will make enquiries with the Police Service of Northern Ireland with respect to addresses in Northern Ireland. If an applicant is not successful in obtaining the post for whatever reason, this information will be destroyed. If an applicant, therefore, subsequently comes under consideration for another position, they will be required to supply this information again.

While applicants must complete information in relation to all addresses at which they have resided, the vetting is only done on addresses on the island of Ireland. If an applicant has resided / studied in countries outside of Ireland for a period of 6 months or more, it is mandatory for them to furnish a Police Criminal Records Check/Police Certificate from those countries stating that they have no convictions recorded against them while residing there. Applicants will need to provide a separate Police Criminal Records Check/Police Certificate for each country in which they have resided. The Police Criminal Records Check/Police Certificate must be dated after the date the applicant left the relevant country. Applicants should provide documentation in the English and/or Irish language. Translations must be provided by a registered translation company/institute in the Republic of Ireland; all costs will be borne by the applicant. Only original version documents will be accepted.

It is the responsibility of the applicant to seek security clearances in a timely fashion as they can take some time. No applicant will be appointed without this information being provided and being in order. The following websites may be of assistance in this regard:

www.disclosurescotland.co.uk and www.psni.police.uk

This website provides information on obtaining a national police clearance certificate for Australia

www.afp.gov.au

This website provides information on obtaining police clearance in New Zealand.

www.courts.govt.nz

For other countries not listed above applicants may find it helpful to contact the relevant embassies who could provide information on seeking Police Clearance. Original Police Clearance documentation should be forwarded to Human Resources where it will be copied and the original returned to the applicant by post. Any cost incurred in this process will be borne by the Applicant.
Contact Information
Interested applicants may contact the following person, by email in the first instance, with informal enquiries:

Professor Carol O’Sullivan, Head of School of Computer Science & Statistics: headscss@scss.tcd.ie

Application Information
Applications will only be accepted through e-recruitment (https://jobs.tcd.ie)

Applicants must provide the following information in applying for this position:

- cover letter;
- comprehensive curriculum vitae including full data on publications;
- name and contact details (i.e. address, email etc.) of three referees;
- statement on their vision for the future development of Statistics in Trinity College - maximum 2 pages;
- research plan (summarising research accomplishments to date, and the research the candidate plans to conduct in the next five years, along with plans for securing competitive research funding) – maximum 2 pages.

Please Note
- Applicants who do not address the application requirements above will not be considered at the short list stage.
- Applicants should note that the interview process for this appointment may include the delivery of a presentation.
- If you have a query regarding e-recruitment, please contact: Ms. Lisa Hynes, Recruitment Partner, Human Resources, LIHYNES@tcd.ie