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Welcome

Thank you for your interest in applying for the position of NUAcT Fellow, aligned with the Data and Digital theme at Newcastle University. As a NUAcT Fellow you will join an active and growing cohort of Fellows across almost every school in the University.

We are investing £30m over five years to build and support around 100 NUAcT and NUPAcT Fellows. We seek to appoint people who have a strong track record aligned to our own research portfolio, who are ambitious and who have the potential to develop a broad range of skills to become future leaders in research and teaching at Newcastle University. We have already appointed 45 research Fellows across our three faculties, who share a passion for collaborative research, developing the careers of others and promoting a positive research culture.

Our world-class facilities and the excellence of our research across wide-ranging disciplines gives Fellows the freedom and opportunity to excel and succeed. We are also fully committed to the professional development of our next generation of researchers. We have a dedicated team overseeing our scheme, ensuring that each Fellow is supported towards a full academic position through mentorship and personalised career development training tailored to their individual needs.

Newcastle University attracts excellent researchers, not least because of the ambition, enthusiasm and teamwork of our staff. We believe that the major challenges of the future will only be answered by collaborative teams that are diverse in career stage, career pathway, disciplinary background, experience and personal characteristics and that Newcastle University is ideally placed to build such teams. We hope that you share our vision to enhance our diversity and creativity, and contribute towards a fully inclusive and collaborative research culture where everyone’s ideas thrive. We very much look forward to hearing from you.

Dr Elizabeth Gibson
NUAcT Director
Reader in Energy Materials
We are looking for early career researchers with an excellent track record for their career stage and a compelling research proposal. As a NUAcT Fellow, you will have the opportunity to lead your own research programme, build an international reputation, and contribute to multi-disciplinary collaborations across the University and beyond. With the programme’s focus on equality, diversity and inclusion, we are building a diverse cohort of Fellows who will champion others and help us to build a more inclusive research culture across Newcastle University. Our appointments are fully flexible, which means that we can accommodate part-time working as needed.

The Fellowship will support you to:
• develop your research ideas through protected research time
• collaborate with top researchers in Newcastle and beyond
• develop grant applications to underpin your own independent research programme
• take part in the supervision of doctoral students
• establish your leadership in your field
• work with industrial partners
• form international partnerships with overseas research groups

The Newcastle University Academic Track Fellowship scheme aims to find and develop our research leaders of the future. This year we are looking to appoint Fellows in a number of ‘Opportunity Areas’ which align closely with our research strengths, complementing our existing teams and bringing fresh perspectives to our challenges.

If you share our vision to enhance our diversity and creativity and work together towards a fully inclusive and collaborative culture where everyone’s ideas thrive, we would be incredibly excited to hear from you.
Data and Digital

We are looking to grow our Data and Digital research in distinctive and innovative ways and welcome candidates from across (and between) all disciplines related to this area.

If your expertise and passion lie in generating and/or using large and complex data sets; digital methodologies; resilience and security; the Digital Humanities; financial technology; data science in biology and the biomedical sciences; the development of, and citizen engagement with, digital technologies; policy for the digital environment; or the challenges of digitalisation and democracy; we’d love to hear from you.

Our NUAcT Fellowships in this area will galvanise and build research momentum across the University around a number of different Opportunity Areas, embedding Fellows into a supportive multidisciplinary environment, which includes the following Newcastle University Centres of Research Excellence: Cyber Security and Resilience, Autonomous Systems, Transformative Neuroscience, Heritage, Children and Youth, Rare Diseases, Ageing and Inequalities, and Researching Cities. The newly created, multidisciplinary School X will invite all NUAcT Fellows to come together and explore ideas for interdisciplinary and cross-sector collaborations.

We are welcoming applications aligned to our Data and Digital theme in the following Opportunity Areas:

Data and Digital Technologies for Industry
Which may include:
- Artificial Intelligence and Autonomous Systems
- Real-Time Monitoring and Forecasting
- Cyber Security
- Digital Twins for Engineering Systems
- Internet of Things
- Data-Centric Engineering
- Digital Construction
- Advanced Manufacturing and Robotics
- Optimal Transport on Networks
- Precision Livestock (Smart Farming)

Data Science and Digital Methodologies for Society
Which may include:
- Text and Voice
- Education for Global Citizenship
- Ethics and Risk
- Digital Heritages
- Law and Regulation
- Racial Justice
- Technology and Communication
- Digital Materialities
- Data for Marketing Applications, Including Ethics and Privacy
- Consumer/User Technology Adoption
- Fintech
- Social and Political Impact of Technology
- Digital Inequalities
- Digital Advocacy

Biomedical and Biological Data Science and Methodology
Which may include:
- Data Science (Omics Research)
- Digital Technologies and Biostatistics
- Early-Life Data Science
- Harnessing Large/Complex Health Data including using Artificial Intelligence
- Artificial Intelligence for Diagnosis and Treatment of Neurological Disorders
- Innovative Trial Design and Analysis Methodology for Rare Diseases
- Mathematical and Statistical Modelling of Biological and Biomedical Systems

Data and Digital at Newcastle
Newcastle University leads the National Innovation Centre for Data and is also a founding member of the Alan Turing Institute. We host the UK Research Institute in Trustworthy Industrial Control Systems, together with the Digital Institute, Open Lab, The PETRAS National Centre of Excellence for IoT Systems, Cybersecurity, and the Policy Academy. Our £58 million Urban Sciences Building is a living lab, containing many common ‘smart’ building systems and the Urban Observatory, the largest set of publicly available real time urban data in the UK. The rural dimension is represented by NU Farms and the National Innovation Centre for Rural Enterprise (NICRE). NICRE undertakes research, innovation projects and policy evaluation to unlock the economic potential of rural enterprise and communities. We are also training the next generation of data scientists through the Centre for Doctoral Training in Geospatial Systems and the Centre for Doctoral Training in Cloud Computing for Big Data. Our Arts and Humanities and Social Science researchers are ensuring the socio-technical-material composition of these areas is considered, as well as the socio-political opportunities, challenges and consequences that come with these developments.

Fundamental Research for Future Applications
Which may include:
- Mathematical and Statistical Foundations of Data Science, Machine Learning and Quantum Computing
- Quantum Science and Technologies
- Data Science for Energy Applications
- Data Science for Fundamental Biology and Physics
- Statistical Methodology
- Computational Chemistry
- Synthetic Biology
- Linguistics Based Research Aiding in Developing Machine Learning Models: Text as Data

Big Data and Digital Methodologies for Ageing and Health
Which may include:
- Modelling of Data for Patient Safety Evaluation
- Healthy Ageing and Digital Inequalities
- Neuromedical Engineering for Implants, Assistive and Wearable Technology
- Technology to Monitor Polypharmacy for Patient Safety
- Ethics

The full list of opportunity areas under each theme and a timeline for recruitment is available on the NUAcT Website. Applicants are encouraged to look for Data and Digital opportunities advertised under other thematic areas and apply to the opportunity area that their research best aligns with. Applications will be dealt with in the same way.
The offer

How we will support you

We offer a competitive start-up package:

• Initial fixed-term appointment for five years (or five years’ full-time equivalent if working part-time) with progression to an open-ended contract subject to successful review.
• Research expenses up to £50k, subject to research programme needs and partner organisation.
• Funding for a 3-year PhD student (UKRI rate for Fee and Stipend, Home (UK) level) associated with the research.
• Dedicated mentors with extensive research expertise and significant project management experience.
• The opportunity to join and participate in our world-class interdisciplinary research centres.
• Extensive training opportunities including a bespoke personal development plan.
• Peer support from a cross disciplinary cohort of talented early career researchers.
Main duties and responsibilities

- To plan and carry out independent, original research relevant to the strategy of the University, leading to high quality outputs, impact and successful applications for research funding.
- To initiate and participate in interdisciplinary collaborations, that enable innovative research.
- To provide guidance and career support to other colleagues and students, including high quality supervision of PhD students, and students undertaking taught programmes.
- To develop a balanced profile of activities that includes research-led teaching and contributions to the working environment. Whilst the focus of this position is on carrying out independent research, enthusiasm for teaching is expected.
- To contribute to a positive and inclusive research environment, and actively support the University’s equality, diversity and inclusion (EDI) agenda.

It is anticipated that you will move to an open-ended contract at the end of your fixed-term period, subject to successful review against the above criteria.
**KNOWLEDGE, SKILLS AND EXPERIENCE**

**Essential**
- A clear vision for developing an independent research programme including plans to attract external research funding.
- A successful track record of developing and delivering research commensurate with career stage.
- Understanding of the Equality, Diversity and Inclusion agenda and how the behaviours of individuals can contribute to a positive research culture.

**Desirable**
- Experience of collaborative working, for example, through working with different researchers or research groups, or with other partners beyond academia such as industry, policy makers or community partners.
- Understanding how to maximise the impact of research, including through outreach, engagement, and partnership building activities.
- Experience of delivering research-led teaching and supporting the careers of others, for example, through mentoring and supervision.

**ATTRIBUTES AND BEHAVIOURS**

**Essential**
- Willingness to participate in collaborating teams and openness to work in an interdisciplinary way.
- Desire to contribute to a positive research culture aligned to the University’s four Guiding Principles and its Equality, Diversity and Inclusion Strategy.
- Willingness to contribute to broader activities that fall within the typical remit of an academic member of staff such as membership of committees, involvement in working groups, EDI activity, outreach, etc.
- Willingness to develop others, for example, through teaching, mentoring, and supervision.
- Motivation to contribute to and benefit from the NUAcT cohort activities.

**QUALIFICATIONS**

**Essential**
- PhD (or equivalent) in a relevant area of research.

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**Application process**

**Longlisting**
Longlisting - anonymised summary cover sheets from all complete and eligible applications are sent to the longlisting panel for review and discussed at a panel meeting. Those with the highest merit are put through to the next stage.

**Shortlisting**
Shortlisting - full applications are sent to the panel for review and feedback is discussed at the shortlisting meeting, with subject specialists introducing relevant applications to the rest of the panel.

**Interview**
Applicants who have scored highly at the shortlisting meeting will be invited to an interview, either face to face or via Zoom. Interviewees will be notified of their interview date at least one week prior to their interview, via email. Applicants who have reached this stage will also be invited to visit Newcastle University to meet with relevant colleagues within the school and to see the facilities.

**Feedback**
All unsuccessful candidates will be notified by email after each stage. We will provide written feedback to all applicants who reach the shortlisting stage but unfortunately, due to the number of applicants, we are unable to provide feedback to those who do not get through to shortlisting.

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To apply, go to: ncl.ac.uk/vacancies

**Closing date for applications:** 06 April 2022

**Interviews**
June/July 2022 TBC – Please note that due to the ongoing Covid-19 situation, our recruitment timeline is subject to change.
How to apply

We are now inviting applications for our NUAcT Fellowship which fall under the thematic area of Data and Digital in the research areas listed on page 8 and 9 of this candidate information pack.

Please apply for this position via our recruitment webpage: www.ncl.ac.uk/vacancies

Important Information

Please read this information carefully as incorrect submission of your application will result in it not being considered.

All documentation:

• must be completed in no less than 11pt font
• must not exceed the maximum page or character count limits given
• must be complete – please ensure you include your cover letter, your CV, your summary cover sheet and research proposal. The summary cover sheet and research proposal should be attached as ‘additional documents’ to your application. Please remember not to include identifying information in your summary cover sheet.

All fully completed applications (with all documents provided) will be assessed in a preliminary longlisting stage based on the summary cover sheet only.

If you require any adjustments in the application process, please get in touch with us to discuss this by email on nuact.admin@newcastle.ac.uk

Cover Letter - one page maximum

Please provide a cover letter outlining your motivation to apply and how you will further your research and career aspirations through this fellowship, and drive forward research at Newcastle.

Your letter must clearly state which academic unit(s) you would see as your host – please see the table ‘Newcastle University Schools and Institutes’ on page X.

You are welcome to include brief details of any career breaks and periods of part-time work, e.g. parental or long-term sick leave in this document, and ask that you include full details in your summary cover sheet.

We encourage applications from researchers who have taken career breaks and wish to ensure that any such extenuating circumstances are taking into account when considering your track record.

CV - four pages maximum

To include:

• Training and qualification history
• Employment history, including dates and positions/roles held to date
• Research funding history, and any awards or prizes received
• Research outputs (e.g. publications, talks, patents, methodologies, impact generation, etc)
• Any contributions to other academic activities, including to teaching and supervision, outreach and promoting a positive research culture
• Any other relevant experience and achievements

Summary Cover Sheet - two pages maximum

You must submit a summary cover sheet using the template and guidance which can be downloaded here from the NUAcT website. This should be attached to your application in the Newcastle University recruitment system as an ‘additional document’.

Please do NOT include your name or current place of work in any section of the summary sheet. This is to support our panel to avoid unconscious bias and encourage equality of opportunity for applicants.

Full Research Proposal - three pages maximum

This should be attached to your application in the Newcastle University recruitment system as an ‘additional document’. You may include graphics or illustrations, but please adhere to the maximum page limit. Font must be no smaller than 11pt.

Your proposal should include:

• Detail of programme of research to be undertaken during the Fellowship
• Potential benefits to Newcastle University and fit with nominated host unit
• Approach to engagement with external partners and impact generation
• Deployment of associated PhD studentship
• Funding applications to be targeted during the Fellowship and fit with funder priorities (please detail your eligibility for relevant Fellowships and anticipated timing of applications).
Fostering equality, diversity and inclusion (EDI)

We value individual differences and the diversity that this brings. We want to ensure that no one is at a disadvantage because of who they are. Instead, we aim to create a supportive and inclusive culture for everyone to reach their full potential.

The University holds a Silver Athena SWAN award recognising our achievements in promoting gender equality and the career progression of women. We are also members of the Stonewall Global Diversity Champion programme, the Business Disability Forum, and the Race Equality Charter. Our NU Futures academics will be welcome to engage with the events and activities of our many colleague networks within the University including: NU Women, the Parents Network, Rainbow@NCL (our LGBTQ+ Network), the NU Race Equality Network (NU-REN) and the Disability Interest Group (DIG).

For more information about EDI at Newcastle, and our current priorities and projects, see: ncl.ac.uk/who-we-are/equality

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The fostering and promotion of good relations and understanding among colleagues and students, irrespective of identity or background, is expected of everyone who works or studies at the University.
We’re fully committed to building a welcoming and empowering research culture where everyone has the freedom and opportunity to succeed, and that recognises everyone’s varied contributions to research, fuels people’s passions and creativity, and support diverse career aspirations.

Our vision for a positive research culture is based on what our research community tells us is important for them. Our postgraduate researchers, academics and professional services colleagues have identified four attributes that we feel define a positive research culture here at Newcastle University: collaboration and collegiality, the freedom to grow and explore, fairness and inclusion, and openness and integrity. We already promote a positive research culture through our Research Strategy, for example, by improving interdisciplinary networking and collaborations through new cross-Faculty Newcastle Centres of Research Excellence (NUCoREs). We are now building on these, and are developing an institutional Research Culture Action Plan that will focus on nurturing people and strengthening our culture over the next 5 years. You can find out more about what we’re doing in our Research Culture at Newcastle University: The Road Ahead document, which maps out our commitment, vision and current plans.

Of course, research culture change involves and belongs to everyone, including our NUAcT Fellows! We ask about how people would contribute towards a positive culture as part of our application process and looking for people who share our aspirations and values. We hope very much that you will see ways to bring new ideas and perspectives to enhancing the research environment, and benefit from a culture that nurtures people’s talents and increases the quality and reach of our research.

People and culture are at the heart of our Research Strategy. Having a positive research culture is really important: the behaviours, values, expectations, attitudes and norms of our research community impacts on how we do research and the wider benefits it can bring.
Employee benefits

The University is committed to providing a great range of benefits and discounts for our colleagues, this includes:

- Excellent defined benefit pension schemes (e.g. USS, NHS)
- Excellent salary sacrifice schemes for cycle to work scheme and pensions
- Generous annual leave of up to six weeks per year in addition to a Christmas closure period. You also have the opportunity to purchase a further two weeks additional leave per year
- Family-friendly leave policies, a career break scheme
- NCL Rewards which offers nearly 6,000 discounts at national retailers, holiday providers, cinemas, leisure attractions and much more
- Webstore – offering discounts on local sports tickets, theatre shows and other attractions
- Discounted regional travel scheme including bus, metro, and rail
- On-site Sports Centre, cultural venues Library

Further information can be found here.
Our Vision and Strategy

Newcastle University is a community of 6,400 talented and ambitious colleagues and approximately 29,000 students from 140 different countries. Ranked amongst the world’s top universities, we are recognised primarily for our teaching excellence and the impact of our research.

We aspire to be a people-focused institution that harnesses academic excellence and creativity to benefit individuals, organisations, and society as a whole. As a founding member of the Russell Group of the UK’s world-class research-intensive universities, we are leaders in research and research-led education. The University traces its origins to 1834 and the need to address an industrial city’s economic, health, and social demands. Newcastle University is an integral part of its host city of Newcastle upon Tyne, a diverse and vibrant community noted for its intellectual life, history, and thriving innovation climate.

As a university, Newcastle is big enough to tackle the most pressing challenges and opportunities facing humanity and the natural world, but small enough to work cohesively across the University and with external partners.

In 2018, we launched a ‘Vision & Strategy’ that incorporates Research for Discovery & Impact, Education for Life, Engagement & Place and Global strategies.

This strategy recognises our pedigree of education and research relevant to our city, region, and the globe. Our culture of openness and transparency and longstanding commitments to equality, diversity, inclusivity, social and environmental justice, and academic freedom are the foundations of this strategy. In addition, our international connections are fostered through physical bases in Singapore and Malaysia.

The Vision & Strategy introduced several transformative initiatives that will accelerate the University’s evolution, including consolidating our research in multidisciplinary Centres of Research Excellence (NUCoREs). The University also aims to further develop its technology-enhanced learning capability, which evolved significantly during the COVID-19 pandemic; and extend our Academies cluster to support working with policymakers, businesses, and Low-to-Middle Income Countries (LMICs).

NUAcT is one of our key ‘transformative initiatives’ and by 2025, NUAcT will have appointed more than 100 researchers and fulfilled about half of our ambition for growth in research power.
The University’s financial position is firm: we have invested approximately £100 million in our city-centre campus over the past few years.

We will continue to do so over the coming years. This has enabled us to achieve significant refurbishments of our existing estate, for example, the phased refurbishment of the Armstrong Building and the development of outstanding new facilities such as our flagship, £58m Urban Sciences Building and the 1,277 bed Park View Student Village. Current projects include a new £16.2m Sports Centre, the redevelopment of the Stephenson Building, and the refurbishment of the Henry Daysh Building.

We actively invest in projects that are helping to attract new businesses and jobs to the region. For example, in partnership with Newcastle City Council, we have created Newcastle Helix, a £350m urban regeneration project, the largest in the UK. Here, we have invested £34m in the Frederick Douglass Centre, a major learning and teaching facility, and £50m in bespoke headquarters for our three National Innovation Centres for Ageing, Data and Rural Enterprise and the National Institute for Health Research Innovation Observatory. These projects create high-quality teaching, learning, social and living environments for our students and colleagues.

In 2019, the University purchased the Campus for Ageing & Vitality from the NHS, providing more than ample estate for future expansion of research facilities within the city centre and a short walk from our main campus.

We also invest in cultural venues linked to our academic excellence. The Hatton Gallery is part of our world-class School of Arts and Cultures. At the same time, the Great North Museum: Hancock (GNM) is home to extensive natural history, archaeology and ethnography collections. Managed on our behalf by Tyne & Wear Archives & Museums, the GNM and Hatton Gallery welcomes around 580,000 visitors annually.
Living and working in Newcastle

If you’ve not visited Newcastle before, you’d be forgiven for thinking this is just a city of party people and avid football fans. Over the past 20 years, a cultural regeneration has changed the area beyond recognition, creating a stunning cityscape and a special place that rewards people who choose to visit, live, work, and study here.

The City
Newcastle is a modern, compact, and culturally vibrant European city with a strong identity. The city is easy to get around and offers excellent shopping, restaurants, museums, galleries and cinemas. The city centre is renowned for its stunning architecture with many fine buildings and streets, including Grey Street, described by seminal architectural historian Nikolaus Pevsner as ‘one of the finest streets in England’. Once a busy industrial and commercial dockside, Newcastle’s Quayside is now packed with cafes, bars, and restaurants to enjoy views of the River Tyne and its bridges.

Neighbouring Gateshead is now famed for its contemporary culture and iconic structures, including BALTIC, a converted 1950s flour mill and now a major international centre for contemporary art, the Sage Gateshead concert venue occupying a curved glass and steel building designed by Norman Foster, the Stirling Prize-winning Gateshead Millennium Bridge and Antony Gormley’s Angel of the North.

The Region
The region is steeped in history, and our countryside and wide sandy beaches are our best kept secret. The Northumberland coast and its historic castles, designated as an Area of Outstanding Natural Beauty, are only 30 minutes’ drive to the north. Hadrian’s Wall world heritage site lies to the west, and South of the city is County Durham, where the ancient city of Durham is complemented by a heritage coastline and rural towns and villages.

Cost of living
On average, the cost of living in Newcastle is 37% cheaper than London. The North East consistently comes out as one of the best value places to live in the UK based on the average cost of living, and property, in particular, is significantly more affordable than in many other parts of the country. From carefully restored Victorian terraces to contemporary city-centre apartments, semi-rural locations to a seafront home, the region offers a wealth of accommodation choices.

Education and Healthcare
Newcastle’s hospitals have an international reputation for excellence in healthcare. The University works in close partnership with the Newcastle Hospitals NHS Trust and Cumbria, Northumberland, Tyne and Wear Mental Health Trust. Education here also has a strong reputation, with a choice of excellent state and private schools, several Further Education colleges and of course our world-class universities.

Travel
Exceptional transport links connect the city and region to the rest of the UK, Europe and beyond. Newcastle International Airport is just over 20 minutes from the city centre by car or public transport, from where there are direct flights to over 80 destinations across the globe. The East Coast mainline provides direct access to London by train in less than three hours and Edinburgh in just over an hour, with trains running approximately every 30 minutes. In addition, the A1(M) motorway links the area to London, Edinburgh and other major UK cities. Newcastle has a modern, integrated transport system with an extensive network of local buses and the Metro which connects the airport, city centre, coast and Sunderland.

Sports
Sports fans are spoilt for choice in Newcastle, with regular top-flight football, rugby and basketball fixtures in the city. In addition, Gateshead Stadium brings international athletics to the region, while the world-class Durham International Cricket Ground hosts county, one-day international, Twenty20 and Test matches. Nearby, Close House golf resort is listed among the UK’s top 100 golf courses and, every year, the world’s largest half marathon, the Great North Run, attracts some 57,000 participants and many thousands more spectators.

The region is steeped in history. The Northumberland coast and its historic castles, designated as an Area of Outstanding Natural Beauty, are only 30 minutes drive to the north.
Newcastle University schools and institutes

Faculty of Humanities and Social Sciences

- School of Architecture, Planning and Landscape
- School of Arts and Cultures
- Newcastle University Business School
- Combined Honours and Philosophy
- School of Education, Communication and Language Sciences
- School of English Literature, Language and Linguistics
- School of Geography, Politics and Sociology
- School of History, Classics and Archaeology
- Newcastle University Law School
- School of Modern Languages

Faculty of Medical Sciences

- Biosciences Institute
- Population Health Sciences Institute
- Translational and Clinical Research Institute
- School of Biomedical, Nutritional and Sports Sciences
- School of Dental Sciences
- School of Medical Education
- School of Pharmacy
- School of Psychology

Faculty of Science, Agriculture and Engineering

- School of Computing
- School of Engineering
- School of Mathematics, Statistics and Physics
- School of Natural and Environmental Sciences

Find out more about Newcastle University’s Schools and Institutes [here](#).