



Spring Lane Building
Heslington West Campus
University of York

Wednesday 14th September 2022

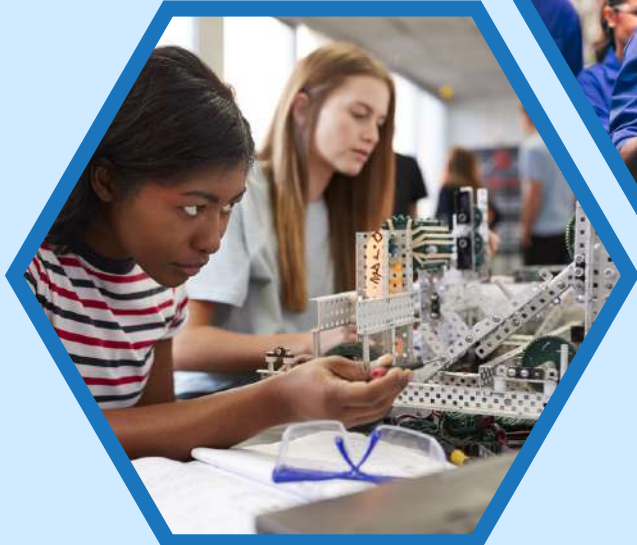
IST Conference 2022

Teams behind the scenes

**Key
sponsors:**



UniGreenScheme
The Asset Rental Service For Universities



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#ISTconf2022

PROGRAMME

CONFERENCE CHAIR & KEYNOTE SPEAKERS

9:00-9:30 Arrivals - Refreshments available

9:30-9:40 Welcome and opening remarks ([Lecture Theatre](#))

9:40-9:50 York welcome from Vice Chancellor Professor, Charlie Jeffery ([Lecture Theatre](#))

9:50-10:40 **Keynote 1 - Dr Hannah Roberts:** The Psychology of Selves: Beyond Imposter Syndrome ([Lecture Theatre](#))

10:40-11:05 Refreshment break and exhibition

11:10-11:50 SESSION ONE WORKSHOPS AND DEMOS

Workshop 1 - Science Museum: The Technicians Gallery ([Lecture Theatre](#))

Workshop 2 - Digital skills - Introducing Python for non-specialists ([1/102](#))

Workshop 3 - Enhancing Student Employability Using Live Briefs ([1/103](#))

Workshop 4 - Enhancing H&S Management using Technology ([1/106](#))

Workshop 5 - Cryogenic storage and the safe use of cryogenic fluids ([1/107](#))

Demo 1 - Film: Easy when you know how! ([G/002](#))

Demo 2 - Mechanical Research Workshop ([G/003](#))

11:55-12:35 SESSION TWO WORKSHOPS AND DEMOS

Workshop 6 - Becoming a STEM Ambassador and how it could help your career ([Lecture Theatre](#))

Workshop 7 - Supporting sustainability and the key role of technical staff ([1/106](#))

Workshop 8 - Women in Tech network group update ([1/103](#))

Workshop 9 - The OpenSTEM Labs: An internet of laboratory things ([1/102](#))

Workshop 10 - The asset resale service for universities. Case studies of laboratory equipment resale from University of York and other universities. ([1/107](#))

Demo 3 - Measure the speed of light ([PT/201](#))

Demo 4 - Deliver Clearer Results Through Accessibility ([G/006](#))

Demo 5 - Green Impact and the Sustainable Laboratory ([G/007](#))

12:35-13:15 or 13:35 Lunch break

13:15-14:45 Campus tour 1: Music Facility

Campus tour 2: Engineering Manufacturing Facility

Campus tour 3: Horticulture Research Facility

Campus tour 4: Institute for Safe Autonomy

13:35-14:20 **Keynote 2 - Michele Fisher:** Interim Director of Health and Safety: From Lab to Leadership ([Lecture Theatre](#))

14:20-14:35 Announcements, awards, and acknowledgements ([Lecture Theatre](#))

14:40-15:05 Refreshment break and exhibition

15:10-15:50 SESSION THREE WORKSHOPS

Workshop 11 - Unlock the technician survey data and discover educational development for technical staff at HEaTED ([Lecture Theatre](#))

Workshop 12 - Professional Registration - what's in it for me? ([1/102](#))

Workshop 13 - Introducing IST's Artificial Intelligence Special Interest Group ([1/103](#))

Workshop 14 - Laboratory Plastic & Sharp Bin Recycling Schemes ([1/104](#))

Workshop 15 - Lab planning & design: putting safety first? ([1/107](#))

Workshop 16 - How To Be Transferable ([1/101](#))

Demo 6 - Spinner construction lab ([PT/401](#))

MITALENT/UKRI Event

16:00-17:00 MITALENT/UKRI - Research Culture: A Technician's Lens - Report Launch
To be booked separately prior to the Conference - <https://bit.ly/MITALENT-UKRI>

IST - supporting the technical workforce.....



Chair
Helen Sharman CMG OBE



Professor Charlie Jeffery



Keynote speaker
Dr Hannah Roberts



Keynote speaker
Michele Fisher



Helen Sharman CMG OBE

Helen Sharman became the first British astronaut in May 1991, spending eight days orbiting the Earth.

A British company was set up to manage the mission and Helen was one of two Britons selected for astronaut training out of almost 13,000 applicants. The mission, named *Project Juno*, was a cooperative arrangement and would enable the UK to send one of its people into space for the first time.

Helen underwent a rigorous selection process, which focussed on psychological and medical assessments, including tolerance to High-g and motion sickness, technical understanding and practical skills. This was followed by 18 months of intensive training that included preparing for launch, feeling weightless, spacecraft operations, emergency situations, working in space and being part of a crew. Coping with risk and a new working environment was an ever-present requirement and teamwork was a vital element in the success of the Mission.

Helen started her career in industry immediately after graduating. Born in Sheffield, Helen attended local schools and read chemistry at the University of Sheffield. She started her career in industry immediately after graduating, working in research and development for GEC in Hammersmith, London and later for Mars Confectionery in Slough. After her return from space, Helen spent many years communicating science and its benefits by speaking, presenting on radio and television and by organising science events for the public.

More recently, she has worked as a manager at the National Physical Laboratory in Teddington, at Kingston University London and at Imperial College London. Currently, Helen is UK Outreach Ambassador for Imperial College London. Alongside her science communication and other speaking engagements, Helen is President of the Institute of Science and Technology and she is a Royal Osteoporosis Society Ambassador. She enjoys running, hill and mountain walking, circuit training classes, yoga, listening to music and playing the piano and saxophone. Her interests include linguistics, social evolution and all other aspects of science.



Professor Charlie Jeffery

Professor Charlie Jeffery became Vice-Chancellor and President at the University of York in September 2019. He had previously been at the University of Edinburgh where he had been Senior Vice-Principal since 2014.

Charlie was a Member of Council of the Economic and Social Research Council from 2006-12 and Chair of the Political Studies Association of the UK from 2009-12. He has a deep-rooted interest in how university research and education can serve the general benefit of society, or public good.

In Edinburgh and now in York Charlie has worked to bring together the university with local authorities, businesses, and other universities and colleges to promote inclusive economic development, and to open up access to university study and economic opportunity to people from disadvantaged backgrounds - both in the UK and internationally.

Charlie is committed to sustainability, in particular, harnessing the expertise and passion of the university sector to respond to the climate crisis. He is a member of the Partnership Board of key organisations in the City of York, the York Central Steering Board, and the York Health and Care Alliance Board.

Charlie is currently Deputy Chair of the Russell Group of leading universities in the UK. He lives in York with his family.



Dr Hannah Roberts

The Psychology of Selves: Beyond Imposter Syndrome

Dr Hannah Roberts is a career coach and professional skills trainer with clients spanning six continents. Her top 10 UK podcast, *Women in STEM Career & Confidence* has over 20,000 downloads and her articles have been featured in *Nature Careers*, *Chemistry World*, *Thrive Global*, and *jobs.ac.uk*, to name a few.

During her extensive academic and industrial career, Hannah took research from concept to start-up. Since 2018, she has been a qualified and regulated coach, trained in talent dynamics profiling, and specialising in purposeful career planning, online networking and social media skills. Hannah embeds commercialisation into research design, she has a particular passion women's leadership development as well as diversity and inclusion.



Michele Fisher

From Lab to Leadership

Michele Fisher is the Interim Director of Health and Safety at York University. Prior to this Michele was the Health, Safety and Wellbeing Manager for a Home Office department where she headed up the function with a small team.

Michele was previously at the University of Hertfordshire where she was the Team Leader, Occupational Health, Safety and Workplace Wellbeing for nine years. Prior to that, Michele began her full-time safety career as Assistant Safety Adviser with a research technology firm in Cambridge that specialised in Bluetooth technologies.

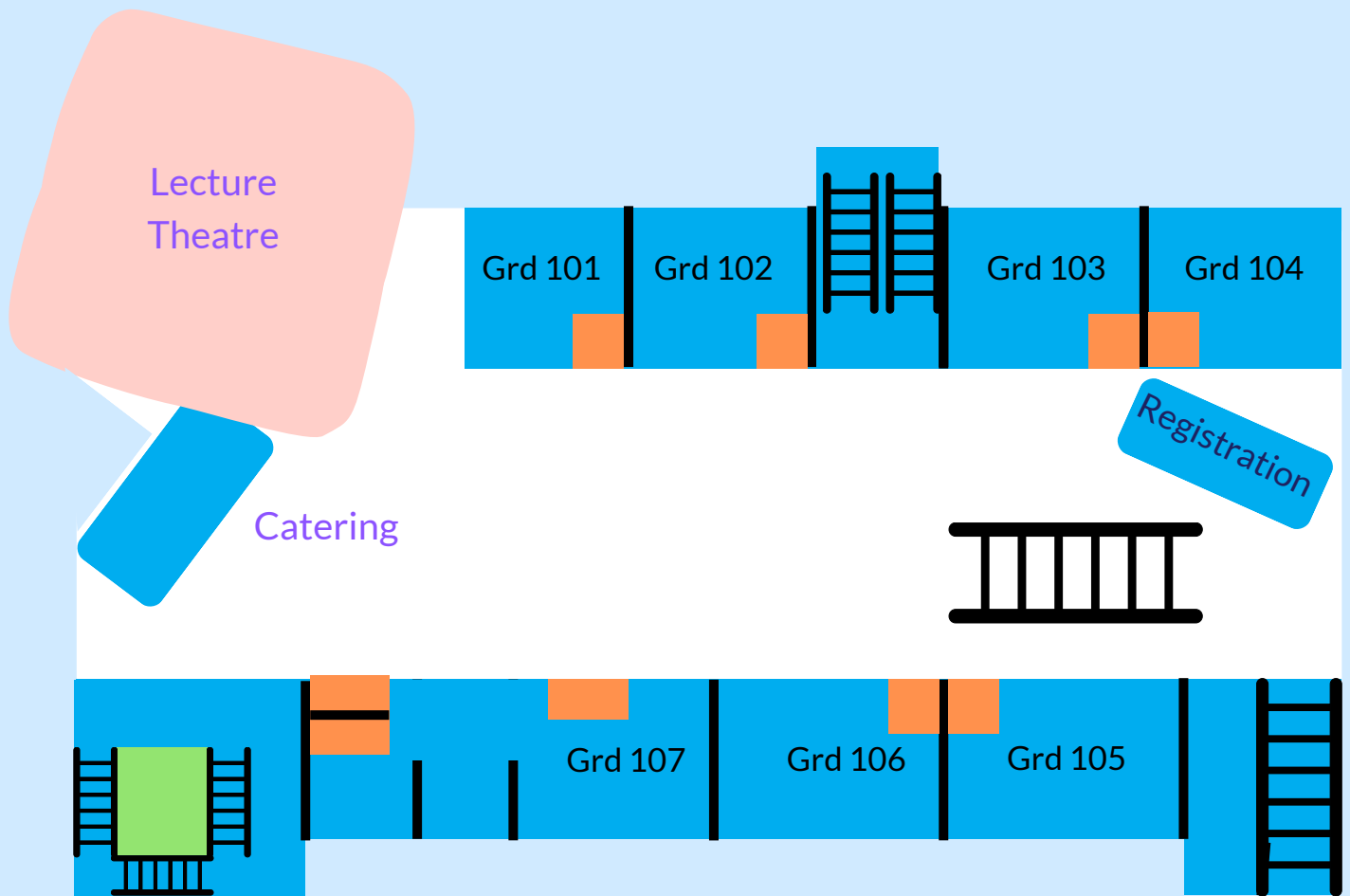
Along with her specialities in Health and safety leadership and management, fire safety management and Biological Safety, Michele is a registered Biological Safety Practitioner.

Michele gained her Postgraduate certificate in Occupational Health and Safety Management at Portsmouth University back in 2010. As a former microbiologist and lab technician in post 16 education, Michele has been passionate about lab safety, which is critical in scientific disciplines. Research is about pushing the boundaries of what is possible and delving into the unknown. Safety, when done properly, is the enabler to this, not the disabler. It is about innovation, both in the research and the in creative nature of a good safety practitioner that can enable to work to progress whilst ensuring risks arising from new and emerging technologies, are managed safely and that people are properly protected.

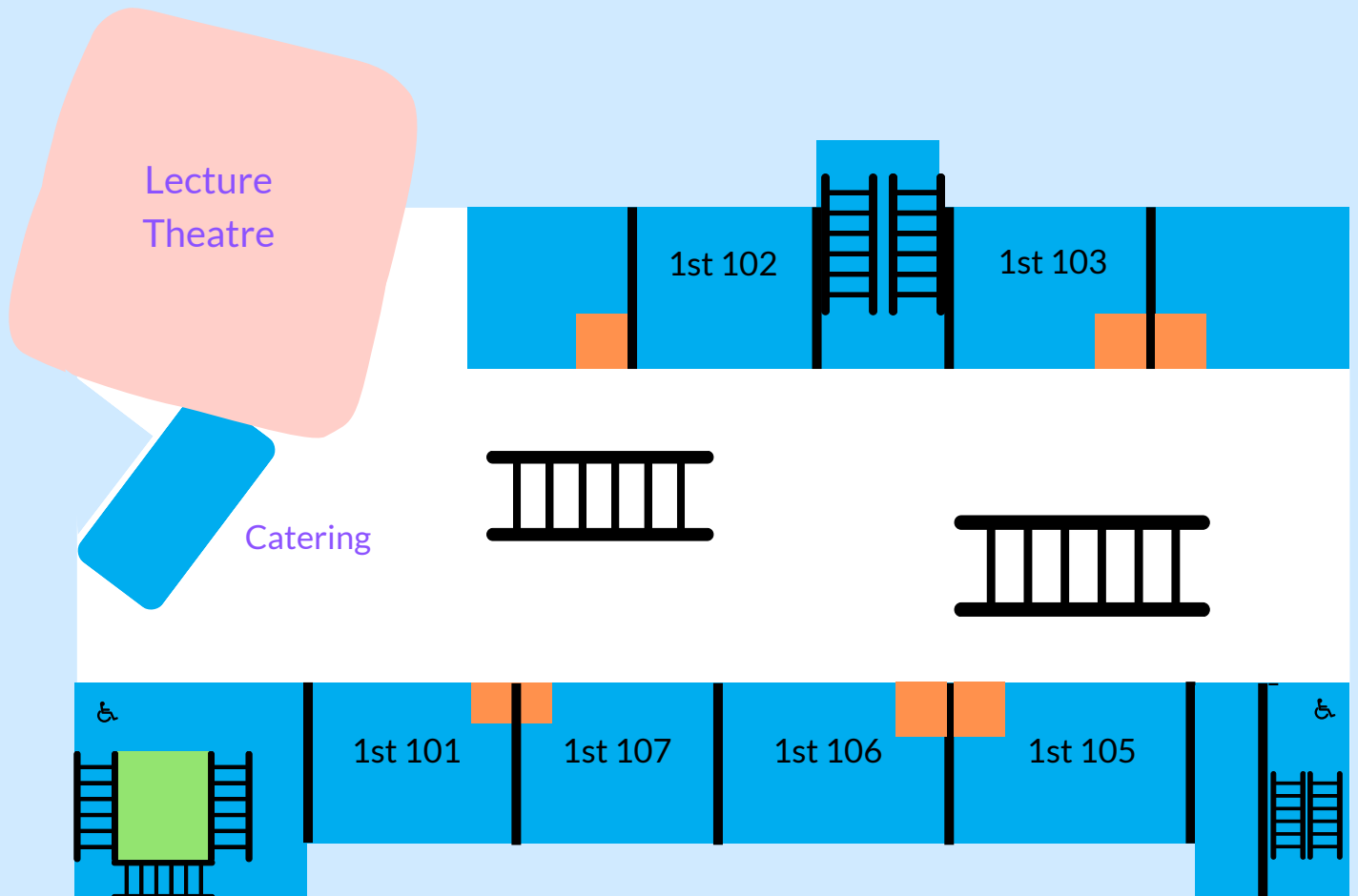
Michele is passionate about science and safety; she firmly believes that compromising safety is never a trade off for making a living or to progress research. There is always a balance to be had when enabling research and managing safety whilst complying with what the law requires. This is the challenge of the modern safety practitioner.

Michele shares her journey from Lab Technician to Health and Safety leadership, her challenges, the weirdest and most comical moments, accomplishments and the lessons that have helped her get there.

Ground floor



1st floor





Cryo Storage Solutions cryostoragesolutions.com

Cryo Storage Solutions supplies full-spectrum cryogenic, gas, and pressure systems services. Pipework and associated services are provided for all medical, laboratory, and industrial gases.

The company distributes for Cryotherm of Germany, this includes SiVL transfer lines for liquid gases, biobanks, Dewars, and cryostats. Vessels of all shapes and sizes can be inspected and serviced. The company also holds a HTA Licence for Human Application and stores tissue samples and cells for clients.



UniGreenScheme unigreenscheme.co.uk

Our mission is very simple. We want to help UK universities reduce waste, consume resources sustainably, and enable research organisations to thrive in an increasingly resource-constrained world.

We offer a free service that helps you recoup valuable space, generate revenue and hit your environmental targets by collecting, storing and selling your unused or surplus high-value laboratory equipment.

With backgrounds in science, business and the service industry, we are passionate about transforming the way universities and the wider scientific community deal with unused or surplus equipment.

Astellastell.com

Although the current name Astell Scientific was adopted in the late 1980s, the company can trace a rich history in sterilization and autoclave manufacturing over 130 years.

Astell Scientific is a leader in steam sterilisation technology and its long heritage and vast experience enables Astell to produce industry leading autoclaves and steam sterilisers for a global market.

CEMcem.com/uk

CEM was founded in 1978 by current CEO, Dr. Michael J. Collins. For over 40 years CEM has designed and developed laboratory instrumentation and scientific methods (both microwave-based and non-microwave technologies) that are used by major companies, prestigious research institutes, and universities around the world.

CEM is a private company with global headquarters outside Charlotte, North Carolina, along with offices in England, Germany, Japan, France, Italy, Singapore, and Ireland.

CEM's major products provide unique solutions for compositional analysis of food and chemical samples, acid digestion for elemental analysis, and chemical synthesis of peptides and small molecules.

Elkayelkaylabs.com

Elkay Laboratory Products specialises in precision consumables.

Elkay has over 30 years experience in providing the best quality lab consumables including, pipettes, tips, automation grade consumables, 2D Sample storage, PCR consumables and much more.

Elkay provides services such as bespoke stainless-steel racking and pipette servicing as well as providing laboratories with almost everything for every need.

Eppendorf

eppendorf.com

eppendorf

Eppendorf is a leading life science company that develops and sells systems for use in laboratories worldwide. Divided into the business units Liquid Handling, Consumables, Separation & Instrumentation, Bioprocess and Workflow Solutions, the product portfolio includes, for example, pipettes, pipette tips, centrifuges, mixers and ultra-low temperature equipment. In addition, Eppendorf offers a wide range of high-quality consumables.

Eppendorf products are most broadly used in academic and commercial research laboratories, e.g., in companies from the pharmaceutical and biotechnological as well as the chemical and food industries. They are also used in laboratories that perform clinical or environmental analysis, in forensic laboratories and in industrial laboratories where process analysis, production and quality assurance are performed.

Medline Scientific

medlinescientific.co.uk

medline
scientific
A CALIBRE SCIENTIFIC COMPANY

Medline Scientific is a Calibre Scientific company, headquartered in Oxfordshire. We have been supporting scientific research and innovation for over 25 years and supply a large range of laboratory equipment, consumables and service solutions to all sectors within the scientific industry.

KNF Neuberger

knf.com/en/uk

KNF

KNF Neuberger UK Ltd was established in 1978, based at their facilities in Witney, Oxfordshire. Their dedicated team of experienced pump engineers are responsible for the sales, marketing, servicing and technical support for the KNF product range within the UK and Ireland. In addition to their standard range of pumps they offer customer specific solutions and are able to tailor their pumps to suit individual requirements. They also have the capability to design and produce pump systems to meet our local customers' needs.

LSG

lifesciencegroup.co.uk

Life Science Group Ltd (LSG) is one of the UK's leading suppliers of life science research solutions.

An outstanding, independent UK company offering quality products and first-class customer service to leading pharma, biotech, contract research organisations and universities worldwide.

LSG offer technical expertise and experience to provide traceable, customisable solutions through the three divisions of LSG: Life Science Production, Antibody Production Services and Diagnostic Kit Services.

Scientific Laboratory Supplies

scientificlabs.co.uk

SLS first began trading in 1991, and since then has grown to become the UK's largest independent supplier of laboratory equipment, chemicals and consumables.

SLS is unique in sourcing and supplying the highest quality, best value products and brands. From pipettes and petri dishes to the latest in laboratory instrumentation, SLS prides itself on the quality of products and the service it provides.

The Open University

open.ac.uk

The Open University has a long history of using innovative methods to deliver authentic practical experiences in STEM subjects. The OpenSTEM Labs is its latest development. Comprising a number of labs, each with a distinct identity, meeting modern student and national skills-based needs.

The OpenSTEM Labs challenge the traditional STEM pedagogical model of students and teachers being co-located in a lab during 'office hours'. The OpenSTEM Labs connect students to instrumentation, data and equipment for practical enquiries over the internet, where time and distance is no longer a barrier – any time, any place access.

OHAUSus.ohaus.com/en-us/

OHAUS has been producing safe, precise, and reliable scales, analytical instruments, and laboratory equipment since the company was founded in 1907.

OHAUS has evolved alongside the industries it serves, meeting their needs today, but also anticipating their needs of tomorrow. This is known as the OHAUS Advantage - built on the core principles of trust, agility, ingenuity, and commitment.

SISOsiso.co.uk

Siso is a highly experienced UK based software house established over 20 years ago, that specialises in creating and perfecting a set of niche products that solve specific and complex needs in the higher education, media, automotive and healthcare sectors.

Siso works creates a bespoke configuration and implementation plan with its clients to ensure they get the maximum benefits from Smarthub, rapidly and effectively.

Royal Statistical Society rss.org.uk

Founded in 1834, we are one of the world's leading organisations advocating for the importance of statistics and data. We're a professional body for all statisticians and data analysts - wherever they may live.

Our vision is a world where data are at the heart of understanding and decision-making.

The Science Museum sciencemuseum.org.uk



The Science Museum enables its visitors to discover award-winning exhibitions, iconic objects and stories of incredible scientific achievement..

NTDC

nationaltechnicianscentre.ac.uk



The National Technician Development Centre provides organisations with everything they need to support the delivery of high quality and sustainable technical services across all sectors.

HEaTED

heated.org.uk



HEaTED is the leading organisation for Higher Education and Technician Educational Development, delivering skills, training and networking for all specialisms and disciplines of the technical workforce.

As the National Technician Development Centre's (NTDC) training arm, HEaTED offers CPD courses and networking opportunities specifically designed for individuals in the technical community, aiming to develop technical staff, no matter their discipline or stage of their career.

Royal Society of Biology rsb.org.uk/



The Royal Society of Biology is a single unified voice for biology: advising government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. The Society represents a diverse membership of individuals, learned societies and other organisations.

Individual members include practising scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.

Royal Society of Chemistrysciencecouncil.org

Whether studying the chemistry of life, or developing the advanced science behind modern technology, chemical scientists use their expertise to improve our health, our environment and our daily lives.

We are the UK's professional body for chemical scientists with a worldwide community. We provide you with relevant networking opportunities, support you as an individual throughout your career through our services and membership benefits, and support your organisation through our tailored initiatives

Science Councilsciencecouncil.org

The Science Council provides the quality assurance system for those working in science. We set the standards for professional registration for practising scientists and science technicians across all scientific disciplines.

AI Special Interest Groupistonline.org.uk

The IST Special Interest Group (SIG) on Artificial Intelligence (AI) sets out to explain and where necessary challenge the development of new AI technologies where they relate to human-computer interaction.

Women in Tech Group istonline.org.uk

The Women in Tech Group (WITG) aims to advance the knowledge and interests of women in tech, supporting and empowering them and helping them to overcome barriers to, or within, scientific/technical careers.



Bob Wiltshire

Cryo Storage Solutions

Bob Wiltshire spent most of his working life at the University of Bristol, where he held the position of Cryogenics and Technical Research Manager. Bob has a particular interest in health and safety training for cryogenics, helping to keep students and staff safe whilst using liquid gases.

Bob's health and safety training session is aimed at users of Dewars and vessels. It will teach you some of the common mistakes and unsafe working practices, and allow you, your colleagues, and students to work more safely using liquid gases.



Catherine Davidge

University of Manchester

Catherine's 25-year technical career at the University of Manchester began as an 18-year-old Trainee Technician in the Department of Child Health. From there she moved to the Department of Physiology progressing to the Senior Technician in the renal and circadian rhythm research groups. Her technical career concluded as the Technical Manager and Safety Advisor for the Research Division of Physiology, Pharmacology and Toxicology.

Wanting a new challenge Catherine applied for a newly created role of University Safety Coordinator in Safety Services, where she liaises primarily with the Faculty of Science and Engineering. Catherine is a Chartered Safety Practitioner, and Fellow of the Institute of Safety in Technology and Research. She has delivered safety-related training for staff and students and her working philosophy is 'Yes, we can do it, safely!'



Chris Snowden-Smith

Transpennine STEM Ambassador Hub

Chris Snowden-Smith is the lead for the Transpennine STEM Ambassador Hub, which encompasses Greater Manchester, West Yorkshire and North Yorkshire. The Hub is based at the Science and Industry Museum (Manchester), National Science and Media Museum (Bradford) and National Railway Museum (York) and works with schools, communities, businesses and volunteers across the region.



Dr Clare Dean

Manchester Metropolitan University

Dr Clare Dean is a Technical Officer at Manchester Metropolitan University, specialising in plant and animal ecology. She has spent many years wading through ponds, sitting in bogs and roaming windy moors, all in the name of science.

**Sarah Bagglely****HEaTED**

Sarah Bagglely is the Operations and Engagement Manager at HEaTED. Sarah is responsible for managing day-to-day operations and has a demonstrated commitment to facilitating member engagement.

Sarah has worked within the Higher Education sector for eight years and has expertise in strategic leadership, client support and financial management. She is passionate about professional development and its importance to both individuals and their organisation.

**Jared Carnie****National Technician Development Centre**

Jared Carnie is the Operations Manager and Skills Survey Lead at the National Technician Development Centre (NTDC). He has overseen the development and implementation of the NTDC's Technician Survey at organisations around the UK and beyond.

**Rachael Peters****Manchester Metropolitan University**

Rachael is a Technical Officer at Manchester Metropolitan University specialising in histology, microscopy, and haematology. Their main role is supporting the research laboratories as well as undergraduate and postgraduate project students. They play a key role in managing the chemical inventory and laboratory information management system at Manchester Met, including facilitating the roll out of the software to the entire Faculty of Science and Engineering and aiding the development of custom CoSHH and Risk Assessment forms. They are also an AFHEA, a Member of the Royal Microscopy Society and working towards Professional Registration as a Chartered Scientist.

**Robert Crapnell****Manchester Metropolitan University**

Robert is currently a Technical Specialist at Manchester Metropolitan University (MMU) working on the Interreg funded project TRANSFORM-CE, which looks to produce valuable additive manufacturing feedstocks from municipal waste sources. He completed his MChem and PhD in Chemistry and Electrochemistry at the University of Hull, under the supervision of Prof. Jay Wadhawan, followed by two PDRA posts at MMU under the supervision of Dr Marloes Peeters and Prof. Craig Banks.



Richard Saldanha

Oxquant

Richard is involved in providing expertise and advice on artificial intelligence, machine learning and data science through consultant Oxquant. Richard is also a Visiting Lecturer at Queen Mary University of London where he teaches statistical machine learning as part of a master's degree programme in economics and finance.



Kanupriya Bhargava

Swiss Re

Kanupriya is an Associate in the Portfolio Steering team at Swiss Re, a world renowned reinsurance/insurance group. She is responsible for developing and designing analytical solutions and initiatives to generate portfolio insights supporting the Property and Special Lines Insurance unit of the company.



Andrew Blance

Waterstons

Andrew is a Data Scientist at Waterstons, a North-East-based technology consultancy firm. Andrew has taught courses about deep learning and statistics throughout the UK and Ireland, showing people in industry and academia how to use advanced data science methods both practically and effectively in their work.



Alicia Colson

Freelance

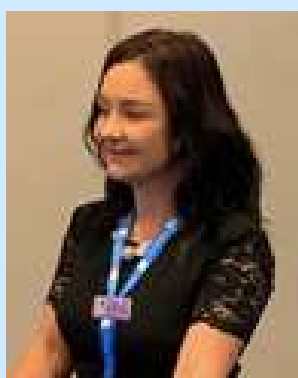
Freelance archaeologist and ethnohistorian interested in the interplay between digital humanities, pattern matching and machine learning (AI) particularly using images, often created by indigenous peoples, and texts. Alicia holds a PhD in Archaeology from McGill University, Canada.



Murray McMonies

Royal Navy

Murray McMonies is a Marine and Nuclear Engineer by profession. He serves as a Commissioned Officer in the Submarine Service of the Royal Navy. Murray completed a Post Graduate Diploma in Nuclear Reactor Technology at Cranfield University in 2016. He also holds an MSc from the University of Portsmouth which formed the basis of his AI research.



Marie Oldfield

Oldfield Consultancy

Marie is the Director of Oldfield Consultancy, which aims to solve some of the most complex problems using AI and data analytics. Marie is heavily involved in AI and ethics and is an Expert Fellow for Sprite+, Chair of the IST's AI SIG and Member of the College of Peer Reviewers for Rephrain. Marie submitted her doctoral thesis on AI earlier this year and will be defending it shortly.



Murray Webster

University of Gothenburg

Murray is currently involved in a research project at the Centre for European Research at the University of Gothenburg, Sweden. He plans to pursue doctoral research in large-scale computational systems and structures of socio-political governance. Murray holds a first-class honours degree in English Literature and Philosophy from the University of Glasgow. He subsequently studied mathematical logic at the University of Gothenburg for a year.



James Fox

University of York

James Fox is the Deputy Operations Manager in the Biology department at the University of York, a post he has held since 2021. Prior to this he was a laboratory manager, technician and postdoctoral researcher with a keen interest in recycling both in and out of work! James is a member of the IST and a Chartered Scientist.

**Evan Wilson****Manchester Metropolitan University**

Evan Wilson is a Technical Specialist within the School of Digital Arts at Manchester Metropolitan University (MMU). His background is in music composition, audio production, photography, camera operation, directing and video post-production. During his time at MMU he has established Art School Live: a project focussed on bringing live music on to the campus to give students the experience of running public-facing hybrid events to enhance their skills and employability.

**Sam Heitzman****Manchester Metropolitan University**

Sam Heitzman is a Technical Specialist within the School of Digital Arts at Manchester Metropolitan University with a background in audio production, video post-production and live technologies. His work focusses on live events and collaborating with artists and practitioners from different disciplines.

Sam's primary interest is live broadcast technologies. He is the co-creator of the successful Manchester Met project Art School Live where students are guided through the process of creating a live cultural event in the heart of Manchester. Alongside this he also runs the Man Met Matchday Live project from the university's Platt Lane campus where students work together to stream sporting events.

**James Smith****The Open University**

After being awarded his PhD in 2002, James spent some time in industry working as a systems engineer before then joining The Open University (OU) as a Curriculum Manager in the School of Physical Sciences. He was senior manager for the OpenSTEM Labs and has recently been appointed to lead some of The OU's innovative augmented and extended reality initiatives.

**John-Paul Ashton-Kinlin****Pro Vital Medical Services Ltd**

John-Paul was a Technician at Microbiological Validation Services Ltd and the University of Sheffield collectively for around ten years before moving into Marketing and Project Management at the Institute of Science & Technology and the National Technician Development Centre for 5-6 years. John-Paul is now Director of an SME; Pro Vital Medical Services Limited which in five years has grown from a £0 to £500,000 annual turnover, with plans in place already for future growth and expansion.

John-Paul's experience in consultancy and special advisory roles helped him to side step but the very foundation that everything was built on was forged from his work as a Technician and his wonderful technical colleagues.



Joan Ward

IST

Joan is currently the Deputy Chair of the IST. Prior to her time working within the IST she spent >30 years at University of Manchester, working her way up from Junior Technician to Faculty Lab Manager, after which she moved into a role as Finance and Research Grants Manager.

After operating as a consultant back at the University she setup and still runs her own consultancy company.

She remains passionate about working towards improving the opportunities for the technical workforce



Margaret Ross

Emerita Professor of Software Quality,
Solent University

MBE presented at Buckingham Palace, 2008
 Added to Computer Weekly's "Hall of Fame" 2020
 BCS Society Medal Finalist 2020
 Honorary Fellow of the British Computer Society, 2007,
 Award of the BCS John Ivanson Medal 2011
 Honorary Degree of Doctor from Staffordshire University, 2004
 Freeman of the City of London, 2001
 Liveryman of the Worshipful Company of Chartered Engineers, 2001
 Identified by Computer Weekly in 2016 as one of the top "50 Most Influential Women in UK IT",
 and in 2017 and also in 2019 in the longer list by Computer Weekly as one of the of the top "Most Influential Women in UK IT"
to name but a few !



Kara McLoughlin

Science Museum

Currently working as Production Coordinator at the Science Museum for the upcoming Technicians Gallery, started in Jan 2022. Previously worked as Project Officer with National Historic Ships UK which is a government funded, independent organisation which gives objective advice to UK governments and local authorities, funding bodies, and the historic ships sector on all matters relating to historic vessels in the UK

Workshop 1

Technicians Gallery

Science Museum

Kara McLoughlin

An update from the staff at the Science Museum about the progress of the exciting new Technicians Gallery. Opening in autumn 2022, this free interactive gallery aimed at 11 to 16-year-olds seeks to change perceptions of technical careers and inspire tomorrow's technicians.

Technicians: The David Sainsbury Gallery will provide unique access into the world of technicians, with visitors able to try out the tasks technicians perform, explore their remarkable stories and meet real-life technicians in the gallery.

Workshop 2

Digital skills: Introducing Python for non specialistsOxquant/ Swiss Re/
WaterstonsRichard Saldanha, Kanupriya
Bhargava, Andrew Blance

Python is one of today's most popular programming languages for implementing AI/ML tasks. Its extensive set of libraries for advanced scientific computing dramatically reduces development time for methods such as natural language processing, computer vision and reinforcement learning. Come and learn more about this Open Source language in a series of easily accessible short presentations from leading IST Pythonistas.

Workshop 3

Enhancing student employability using live briefsManchester Metropolitan
UniversityEvan Wilson
Sam Heitzman

How specialist technical staff at Manchester Metropolitan University use live cultural and sporting events to enhance student employability.

Workshop 4

Enhancing Health and Safety using TechnologyManchester Metropolitan
University

Rachael Peters

LabCup is a chemical inventory and laboratory information management system that plays a key role in facilitating health and safety management at Manchester Met. Rachael will be discussing the role LabCup plays in this and how similar technologies could be used to enhance health and safety processes within other laboratories and workshops. They will also talk about the journey to develop the system from a small-scale trial in a few laboratories to an essential system for everyone who works in the Faculty of Science and Engineering.

Workshop 5

Cryogenic storage and the safe use of cryogenic fluids

Cryo Storage

Bob Wiltshire

This H&S training session on the safe use of cryogenic fluids is aimed at users of Dewars and vessels. It will teach you some of the common mistakes and unsafe working practices, and allow you, your colleagues, and students to work more safely using liquid gases.

Workshop 6

Becoming a STEM Ambassador and how it could help your career

Transpennine STEM
Ambassador Hub

Chris Snowden-Smith

In this interactive session find out about STEM Ambassadors, a national volunteering programme connecting STEM professionals with children and young people with the aim of inspiring the next generation and how to sign up. The session will also cover how being a STEM Ambassador can help your career, through developing skills and building your CV.

Workshop 7

Supporting sustainability and the key role of technical staff

Manchester
Metropolitan University

Dr Clare Dean,
Rachael Peters, Robert
Crapnell

Technical services play a key role in supporting our universities to achieve their sustainability goals. Bobby will be talking about his work related to transforming municipal waste streams into useful products, Clare will be highlighting how she supports research relating to environmental assessment including carbon measurement, and Rachael will be showing how using a laboratory information management system can improve sustainable working practices in laboratories.

Workshop 8

Women in Tech Group

IST

Joan Ward, Margaret
Ross, Marie Oldfield

An update from the IST's Women in Tech network group - what they have been doing and a discussion on what the group should be doing going forward.

Workshop 9

The OpenSTEM Labs: An Internet of Laboratory Things

The Open University

James Smith

The OpenSTEM Labs challenge the traditional STEM teaching model of students and tutors being collocated in a lab during 'office hours'. The laboratory connects students to instrumentation, data and equipment for practical enquiries over the internet, where distance is no longer a barrier and where access can be available 24 hours a day. The experiences a student might encounter range from data driven interactive experiments through to connecting with real, high grade, equipment. There are even two telescopes sited in an international observatory complex on Tenerife.

Workshop 10

The asset resale service for universities

Michael McLeod

UniGreen

The start-up, UniGreenScheme is a service to collect, store and sell unwanted equipment for universities. It has re homed over 700,000kg of equipment, saving the sector over £2.4m versus disposal. UniGreenScheme recently started working with the University of York and this talk will showcase some examples of resale at York and other universities

Workshop 11

Unlock the Technician Survey data and Discover Education Development for Technical Staff at HEaTEDNational Technician
Development Centre/
HEaTED

Jared Carnie, Sarah Baggeley

This session will give an update on the NTDC Technician Survey, including recent activity and how to unlock the potential of the data, and also explain HEaTED's work to support and promote the skills and roles of technical staff. There will also be an opportunity to hear about networks and career development opportunities open to technicians and experiences and success from HEaTED members.

Workshop 12

Professional Registration- what's in it for me?

IST

Michelle Jackson,
Laurence Dawkins-Hall

Michelle and Laurence are the Registrar and Assistant Registrar for the IST. They will explain the basis of professional registration and will discuss the merits and benefits to becoming professionally registered. They will also look at what registrants see as the pros and cons of undertaking the application process and securing and maintaining registration.

Workshop 13

Introducing the IST's Artificial Intelligence Specialist Interest Group

IST

Alicia Colson, Murray McMonies, Marie
Oldfield, Murray Webster, Andrew Blance,
Richard Saldanha

The lack of knowledge, and by implication transparency and accountability, in AI can be worrying. More should be done to ensure that AI is understood, its benefits harvested more readily and any risks mitigated. The IST's AI SIG aims to explain and where necessary challenge the development of new such technologies where they relate to human-computer interaction. Come and learn more about what we do. You might even consider joining our group.

Workshop 14

Laboratory Plastic and Sharp Bin Recycling Schemes

University of York

James Fox

This workshop will outline how the Department of Biology at the University of York is working with its waste contractors to recycle laboratory plastics (since 2018) and, in the past few months, how it has implemented a sector leading scheme to reuse sharps bins.

Workshop 15

Laboratory planning and design: putting safety first?

University of Manchester

Catherine Davidge

At some point in your technical career you may get involved in facilities refurbishment, or be asked to help accommodate a new researcher joining your group. During this workshop we will consider when to focus on the safety aspects of these tasks and get some hands on planning experience during a practical exercise.

How to be transferable

Career Development is something we are all familiar with, but due to the pandemic it is becoming more and more essential to be able to use your pre-existing skills and shift them into a brand new dynamic for success. This talk will give a small insight into case studies, examples and top tips to give you the edge on maximising your true career potential. You are never 'Just a Technician'!



Demo 1

Film: Easy when you know how

Erik Olafsen

School of Arts &
Creative Technologies

The secret to capturing good video: Setup and use of a high-end video camera.

Demo 2

Mechanical Research Workshop

Mark Bentley

Biology

A presentation of the bespoke instruments, from large scale GPS controlled gaseous collectors to minute frames for microscopic analysis that we have built in our workshop

Demo 3

Measure the speed of light

Andy Firth

School of Physics,
Engineering & Technologyk

A practical physics taster session

Demo 4

Deliver Clearer Results Through Accessibility

Richard Hagan

Archaeology

A practical physics taster session

Demo 5

Green Impact and the Sustainable LaboratoryRebecca Sutton/Dave
Hay

E & G

A practical physics taster session

Demo 6

Spinner construction lab

Andy White

School of Physics, Engineering
& Technology

Partake in a practical lab session to solder electronic components into a PCB in order to manufacture a working gift to take away with you

Tour 1

Music FacilitySchool of Arts &
Creative Technologies

Ben Eyes

Visit the music department, housing one of the best auditoriums for acoustics in the North of England, with a newly rebuilt pipe organ and two Steinway pianos, surrounded by specialist teaching and practice rooms.

Tour 2

Engineering Manufacturing FacilitySchool of Physics,
Engineering &
Technology

Andy White

Visit the new Engineering Manufacturing Facility, renewables test bed lab and Engineering teaching labs

Tour 3

Horticulture Research Facility

Biology Department

Jason Daff

Visit the glasshouses and controlled environments for growing plant material for research into bio renewables and fighting disease. Learn about the roles of the technical team who provide this service.

Tour 4

Institute for Safe AutonomySchool of Physics,
Engineering &
Technology

James Hilder

Robotics, autonomous systems and AI have the potential to transform the way we live, travel & work. Visit our brand new flagship research facility before it opens officially this autumn.

