



Supporting technical
staff working in science,
technology, engineering,
digital, arts and media



MERRY
CHRISTMAS



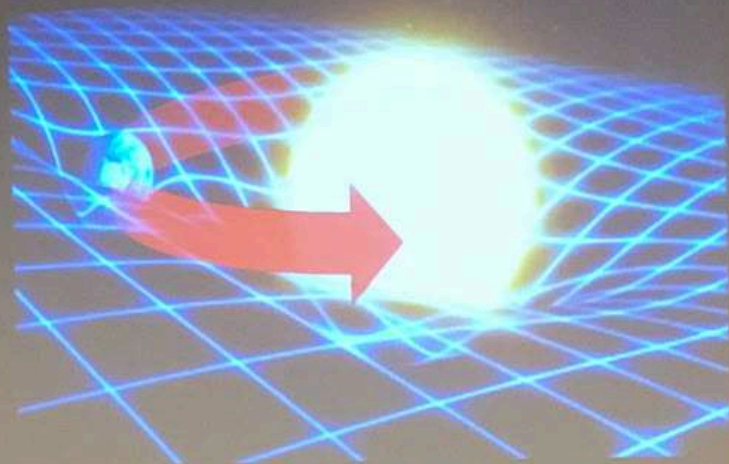
e - Newsletter

Christmas Edition - December 2019

'Now Is A Great Time To Be A Technician'

Professor Alberto Vecchio

'How to measure black holes with a pretty damn good ruler'
IST Conference 2019, Birmingham



[Image: WGBH Boston]



Don't miss out on
our next Conference
in York on 16th
September!

Turn to **Page 8** for
Conf 2020



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THANK YOU NOTES

Thank You to all the contributions to this edition of the e-Newsletter.

Please contact the IST Office if you would like the opportunity to write an article for any of the future editions.

If you would like to contribute to the next e-Newsletter please contact us at the IST office:

office@istonline.org.uk





HELEN'S UPDATE



Dr Helen Sharman CMG OBE FISCT FRSC

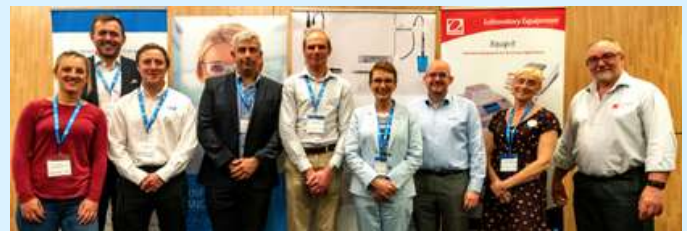
PRESIDENT, IST

The big IST event in autumn is the annual conference and this year did not disappoint, with delegates coming from all over the UK to the Birmingham Conference and Events Centre on 18 September.

Professor Alberto Vecchio from the University of Birmingham set the mood (my brain was still spinning with cosmic thoughts and technical contributions on the way home) with a great keynote speech about measuring gravitational waves and how to detect black holes merging and neutron stars colliding. Workshops followed throughout the day under the themes of creative technologies, science and engineering, all areas of technology, professional development, supporting inclusivity and (of course) health and safety.

The Roger Dainty best poster competition was particularly difficult for the judges with an amazing number of diverse, high quality entries; a selection of IST staff spoke about their activities, including Registrar Michelle Jackson, Deputy Chair and Finance Officer Joan Ward and Secretary Natalie Kennerley (about the Creative Industries Pilot Project); I spoke about astronaut training; and there was a diverse range of exhibitors to quiz, who came with everything from leaflets to fully working equipment. We finished by awarding the poster prizes and giving the Outstanding Apprentice /Trainee Award.

We are grateful to our sponsors CEM, Ohaus, Mettler Toledo and KNF, who allow the IST to keep costs to a minimum for delegates. Thanks also to the many IST staff who were involved in the Conference from beginning to end. Some sponsors and IST members have already asked to support the Conference next year.

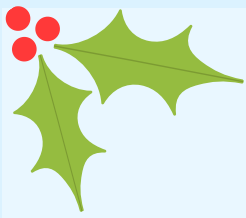


Speaking of next year, the Conference will be in York on 16 Sept 2020, something to look forward to in a year that is likely to be full of political turmoil and general uncertainty. As the UK negotiates its way through various trade deals with the EU, the IST will continue to support technicians and employers of technical staff, to recognise technicians' skills and experience, to ensure the country understands the value of technicians and to celebrate the amazing jobs you do.

Have a great Christmas.

Helen.





TERRY'S BLOG



Terry Croft MBE CSci FIScT

CEO & CHAIR, IST

Welcome to the next edition of the e-Newsletter.

As we are fast approaching the end of the year and we have another successful conference under our belts (see Helen's Update) you may think it's time for the Executive and all our volunteers to take a well earned rest but you would be wrong. The team has already started the initial planning for next year's conference at the University of York on Wednesday 16th September 2019. Your ideas and suggestions for workshops next year have also been taken on board. However please keep sending them in as there is still time before the programme is finalized. (all suggestions to j.p.ashton@istonline.org.uk).

But this hasn't just been our focus. We have been working in partnership with the National Technician Development Centre (NTDC) on developing a new piece of software for our members - **CPD Central** - so watch out for further announcements. Thanks to Joan and John-Paul for their hard work on this joint project.



Joan, Helen and myself have been working with a number of national organisations and other professional bodies on a variety of projects and reviews concerning the technical community at large. The IST have supported and contributed to the new Assistant Education Technician Apprenticeship Standard lead by Chris Turgoose at the NTDC.

Philippa again has been championing the need for engagement with CPD activities and the recent CPD

Science Council awards. Congratulation to our members; Amelia Lesiuk (RSci), Ellis Marriott (RSciTech) and Emma Chapman (RSci) for their recent successes.



Colleagues and I have been supporting members and the technical community at large in dealing with a variety of issues from Brexit and potential impact on their jobs, to issues around retraining and the need for engaging with Professional Registration. In these uncertain times, our general advice is to take (or seriously look at) any career opportunities that may come your way. We all love our comfort blankets but sometimes you need to step out of the box. Helen's keynote speech at this year's conference hit the nail on the head. Make yourself an even better asset to your employer by ensuring you keep your skill set up to date (CPD activities are essential in today's fast moving technological age) and seriously consider Registration. By proving your competency and gaining accreditation by peer review is invaluable in these days of uncertainty.

So on a lighter note, may I wish you and your families a very Happy Christmas and a secure and productive 2020. Please remember if you wish to volunteer and support your professional body in a variety of ways from manning reception at one of our events to becoming an IST Champion then please do not hesitate to contact any member of our team or myself.

Terry.



News / Events Update

IST at events across the UK

The IST attend events all over the year and all across the UK to engage with the technical community as well as putting on professional registration workshops to promote the Science Council registers.

Look out for the e-Newsletters, our website and social media platforms to find out what future events we will be at supporting the technical community. Please feel free to come and say hello.

We always welcome invitations to come and exhibit at your events - if we can support you, we will do. We also welcome help from our members to talk about their professional registration experiences, about the IST and all things good about being a technician!

Future Events to look out for us at:

- TMU conference - Cardiff - 1st - 3rd April 2020
- UBMA Conference - University of Limerick - 29th April- 1st May 2020
- SLS Show 2020 - Nottingham - 20th May 2020
- Working in Partnership Conference - Newcastle Helix - 24th June 2020
- IST Conference 2020 - University of York - 16th September 2020
- University of York Technician Week - York - 14th - 18th September 2020



Some of the previous Events Supported by the IST:

Professional Registration - Nottingham Trent University, 27/03/2019

S-Lab Conference - Birmingham, 02/04/2019 - 03/04/2019

UBMA Conference - Coventry, 01/05/2019 - 03/05/2019

NE/NWSCS Technician's Conference - Chester, The King's School, 22/05/2019

IST 64th AGM - University of Sheffield, 29/05/2019

Technical Services Conference - Manchester Met University, 04/06/2019

UK Higher Education Technician Summit - Birmingham, 25/06/2019

Exeter Technical Services - University of Exeter, 27/06/2019

Professional Registration Workshop - University of Edinburgh, 30/06/2019

York Technician Conference - University of York, 02/07/2019

Research, Translation, Innovation & Learning - Norwich, 09/09/2019

RITS2019 Conference - Francis Crick, 18/11/2019

The Environment Agency

November Floods in South Yorkshire

INDUSTRY

The Environment Agency worked tirelessly over the November Flooding, pumping 2.5 tonnes of water per second out of the deluged communities.



Over November, the Environment Agency were kept extremely busy when the rain began to fall. On 14th November, more than 40 Environment Agency flood warnings were in place. These warnings meant that immediate action was required.

The Environment Agency had over 300 staff working around the clock across the UK, using pumps to remove the tonnes of water.

Who are the Environment Agency?

The Environment Agency (EA) is an executive non-departmental public body that were established to protect and improve the environment. They work to create better places for people and wildlife, and support sustainable development.

What the Flood Warnings Mean:

Flood Alert - PREPARE



- Prepare a bag that includes medicines & insurance documents
- Check flood warnings

Flood Alert - ACT



- Turn of gas, water and electricity
- Move things upstairs or to safety
- Move family, pets and car to safety

Flood Alert - SURVIVE



- Call 999 if in immediate danger
- Follow advice from emergency services
- Keep yourself and your family safe

For more information about go to:

<https://flood-warning-information.service.gov.uk>



IST One-day Technical Conference 2020

University of York

Spring Lane Building

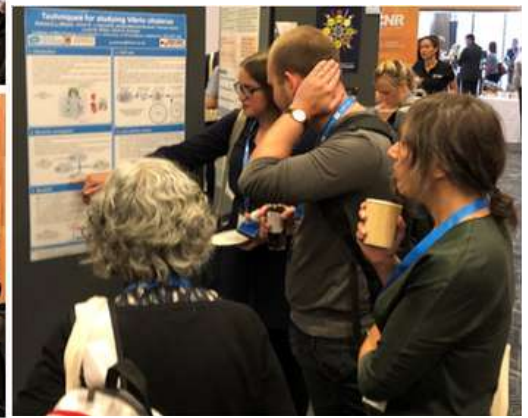
Wednesday 16th September 2020



This exciting one-day conference and its talks and workshops offer you an opportunity to update technical knowledge, skills and further your career development. It will also provide valuable networking opportunities to engage and learn from other technical staff and technical supervisors and managers. The event is aimed at technical staff in any industry and sector, from science and engineering to arts and media.



Network with our sponsors, exhibitors, career zone supporters and each other.



A Cosmic Christmas

Hubble Space Telescopes Christmas Ornament

SCIENCE



NASA's Hubble Space Telescope identified a Christmas Ornament shaped nebula.

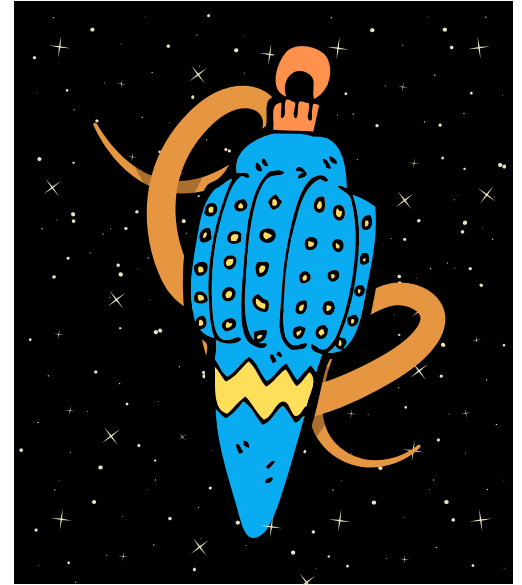
Photo Credit:

NASA/ESA/Hubble
Heritage Team
(STScI/AURA)

<https://hubblesite.org>



This image was taken with Hubble's Wide Field Camera, in filters tuned to the specific colours of fluorescing sulfur, hydrogen, and oxygen atoms. Broad filters in the visible and near-infrared were used to capture the star colors.



This image was made in 5 minutes by John-Paul creating a starry-background and sticking a cartoon bauble in front with twirls. The likeness is...well...questionable!

The Christmas Ornament - Hubble Style

It's that time of year again when people are getting their sherry out, popping 'It's the most wonderful time of the year' by Andy Williams on the stereo, and trimming the Christmas tree (or just admiring your neighbours national lampoons!)

We are so lucky to have our very own natural lighting displays taking place in space.

A few years ago, Astronomers spied using NASA's Hubble Space Telescope a very notable bauble resembling a glass ornament wrapped with a golden ribbon.

The picture above (on the left, not my very bad cartoon interpretation), shows the planetary nebula NGC 5189, which is the aftermath of an explosion. Its home is in the Southern Hemisphere constellation Musca and sits about 3000 years away.

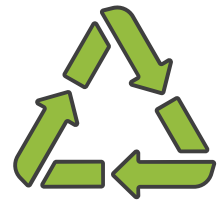
The material that looks like the ribbon is the nebula expelling stellar winds and radiation. This material is spewing from the central stars core, where the core is consuming the very last of its fuel, and expelling material into space. This is all during the death of a medium size star (our Sun also being a medium size star helps to put this into perspective).

The blue depicts the 2-light-year-diameter nebula expanding in all directions and time, which is a spectacular example of its complexity and beauty.

Merry Christmas Everyone!

Waste No More

The Diamond Student Biodigester Project



ENGINEERING & SUSTAINABILITY

People laugh when I tell them that the inspiration for this project was a man in the Malvern Hills who had made a dog waste biodigester in his back garden. I described the news report I had seen in one of our Green Impact sustainability meetings and suggested that, as an engineering department, surely we could create something similar to tackle the amount of food waste created by the users of our state-of-the-art teaching facility. Better yet, how great would it be for our students to design and build it themselves? I never expected to be told “That’s a brilliant idea - do it”.



From that initial idea in a staff meeting the project had already grown into a collaborative effort far exceeding my original hopes. The Biodigester Team had 26 members; including technicians, academics, undergraduate students, admin staff and researchers across 5 different engineering disciplines. The project already had support and collaboration with over 10 different organisations including the Sheffield iForge, RS Components, Engineers Without Borders, Energy 2050 and The Urban Flows Observatory. And this really was only the very beginning....

So what was the big idea for our Diamond Student Biodigester? In October this year undergraduate students from across the Faculty of Engineering were invited to take part in a design challenge, where they worked together in multidisciplinary teams to research and address a real global sustainability problem.



With guidance and consultation available from leading experts in anaerobic digestion, sustainable energy and engineering safety the students developed their own solutions to tackling food waste in a busy commercial building.



The challenge culminated in a weekend event where student teams met with [key people] from industry, research, global organisations and professional bodies as they finalised their designs, created models and prototypes, and finally presented their solution to a panel of expert judges.

All student teams received valuable feedback on their research techniques and design creativity, and the event also presented a fantastic opportunity to develop core skills such as communication, presentation and team working skills. The group selected as our event winners were well-rewarded in the form of prizes and fantastic publicity - the entire event was also covered through the University, social media, local media and national institutions such as the IST.

After the event our winning team will be invited to make their idea into a reality. The students will work together with experts

from various organisations, industry collaborators, academics and technicians from across the Faculty, and the University Estates and Facilities team, to create a full pilot scale biodigester that will form a central feature of the University's Diamond Integrated Pilot Plant.

We are already forming cunning plans for the final working biodigester to be incorporated into the world class engineering teaching delivered by the facility. Most importantly though, the Diamond Student Biodigester will become a shining display of engineers at all levels coming together to find the solutions to major global issues. And this is what the project was all about.

For more information on the University of Sheffield Diamond Student Biodigester project please contact,

Helen Wright: helen.wright@sheffield.ac.uk





Jantze Holmes, a technician at the University of Lincoln, shares her story on how she became a registered practitioner from the creative industries.



Earlier this year we were all given the opportunity to apply for membership with the Institute of Science and Technology (IST) and subsequently applied to become a Creative Industries Registered Practitioner.

In all honesty, although I knew it looked a fantastic initiative – a pilot scheme to promote and improve the opportunities of technicians in the creative industries – self-doubt crept in and a little voice in my head whispered, "maybe I'm not good enough", "mine aren't the type of skills that count", "maybe I haven't done enough as I've been so busy helping students", "do I even have time to do this...?"

These nagging thoughts soon disappeared after I read through the application process and saw an example of a recently approved application (names redacted of course). The examples of personal and professional development (PPD) were so similar and relatable to my own, that I decided right away that I could and should do this!

It was a busy time of year (with students' end of year deadlines and our Festival of Creativity preparation which is the culmination of the undergraduate students' three years hard work) so I had to make time to do the application. I decided to head to the University library so that I could work without interruption.

After filling out the initial information on the various forms, my main task was to write a list of all the personal and professional development that I had done over the past year, which would be included in my application. At first I found this difficult as I had not been very methodical in the way that I kept track of everything (something that I have learnt is important to keep a clear record of everything in my online calendar and take photos of everything I do). However, I persevered and many scribbled lists later, I found that I had indeed done a lot more than I at first realised.

Here are some examples of the activities that I included in my PPD report:

- Self-directed online learning with Lynda.com and other websites
- Short courses at Nottingham Trent University, London Centre for Book Arts & the Lincoln Heritage Skills Centre
- Staff development at the University of Lincoln, for example Disability Awareness
- Unison learning such as British Sign Language and Autism Awareness
- Self-directed learning through making (from books, websites and other practitioners)
- Industry links including visits to GF Smith (paper) RA Smart (digital fabric printing)
- Networking with technicians in other institutions such as Derby, Nottingham Trent University and Edinburgh College of Art
- Showcasing student work in displays in the departments and the University library
- Assisting on different research projects with academic colleagues
- Devising / delivering a series of masterclasses (technician led) in book arts skills

It took me around two days to complete the application (I'm hoping next time it will be quicker as I will have kept a record of everything throughout the year). Once submitted, my application was in the hands of the panel and I kept my fingers crossed. I was very pleased when I heard that I had been successful and am proud to say that I am now a member of the Institute of Science and Technology as well as being a Creative Industries Registered Practitioner (and I can put MIScT (Reg) after my name!).

I would really recommend applying, as it has helped me value all the different things I do outside of my main job (supporting students) and have more confidence in how these make me a better technician, and hopefully more recognised professionally, which can only be a good thing.

Jantze Holmes, MIScT(Reg)
University of Lincoln Technician



CPD Links:

IST RESOURCES

CV BUILDER

HEaTED|STEM

ALISON COURSES

FUTURE LEARN

OPEN LEARN

OPEN UNIVERSITY

UDEMY



When we introduced CPD corner, in 2017, we said that we might also include examples of outstanding CPD activities that have come to our notice! And here is one. The main text is taken from a CPD report submitted by one of the IST's Registered Scientists (it has been edited slightly) and there are some notes to highlight the positive aspects and other factors that could be considered. Overall, the report is a bit brief and a bit more detail could be given but it indicates that s/he has gained substantially from this activity. It would also be interesting to know how the trainee felt about the training.

Brief Description of activity:

I trained a colleague in next generation sequencing methods. Practices include: sample concentration; DNA extraction; PCR amplification of DNA; purification of PCR product using size selection magnetic beads; tagging of cleaned PCR product; quantification, diluting and pooling of samples; loading sample library to be sequenced.

Values obtained:

1. Learning outcomes

I have developed the skills required to train other people, in what is a complex method. Additionally I have refreshed my own skills. - [Having to train someone in a technique means that the trainer has to think it through and be prepared for questions and suggestions from the trainee. S/he may also recognise bad habits or complacency that have crept in to her/his practice! There could also be an element of research when preparing a training plan, especially if visual aids are used.]

2. Skills acquired

Better communication of methods and best practices, both verbally and in writing.

3. How it has benefited the quality of my practice

It has improved my communication skills so I am better able to train others. Additionally the method is easier to be peer audited as more people know the method, which leads to improvements in data quality. - [Has it improved her/his own practice?]

4. How it has benefited the users of my work

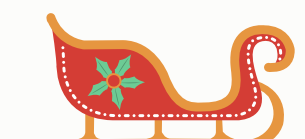
More of my colleagues are now competent in analysing the samples which ensures that samples are analysed faster. - [There could also be an advantage for the employer by providing back-up cover for absences and emergencies, if more staff are familiar with the technique.]

5. Reflections

Whilst going through the training, we were both required to do other activities around the lab which meant we couldn't always do the training as planned. Next time a colleague is to be trained, particularly in this method, I think I will talk to my team leader or lead scientist about us having time dedicated to learning it so it is not as disjointed, and we are able to focus on it properly! - [Good point]

Philippa Nobbs

IST Acting Education Officer





CPD Awards

Celebrating outstanding professional development in science

#CPDAwards

CONGRATULATIONS

to our following members

AMELIA LESIUK

RSci

CPD AWARD WINNER

ELLIS MARRIOTT

RSciTech

COMMENDATION AWARD

EMMA CHAPMAN

RSci

COMMENDATION AWARD



Exceptional CPD reports are recognised by the Science Council through these awards so a huge well done from the IST Executive and full team.



Well done to all those CPD Winners and Commendations awarded at the CPD Awards. Fantastic achievement.

The Salters' Institute Award

Congratulations to Maureen Wade on her fantastic achievement

AWARDS



Mrs Maureen Wade from the Victory Academy accepting her award from Dame Mary Archer, Chairman of the Science Museum and Mr. Alan Wordie, Master of the Salter's Company

The Salter's Institute, founded in 1918, is part of the charity arm of the Salter's Company which is one of the 12 Great Livery Companies of the City of London being in existence prior to its first licence granted in 1394 by Richard II.

The awards are open to all science technicians working in educational establishments with children up to the age of 18. They are part of an effort for technicians working in this field to be recognised for the important work they do and the skills they possess. This year's awarding panel was chaired by Dr. Kay Stephenson (an independent education consultant with links to the Royal Society of Chemistry and CLEAPSS) and the awards presented by Dame Mary Archer, Chairman of the Science Museum and Mr. Alan Wordie, Master of the Salter's Company.

The selection process is quite prolonged starting in May with an initial nomination outlining my role in school. The institute usually has several hundred nominations a number of which are chosen to progress to the next stage. The Institute then asked me to submit more detail of points highlighted by the awarding panel from the nomination, how the £1000 prize money would be spent and my Head of Science was asked for a submission stating the impact my contribution makes to the school.

At this point the awarding panel chose 9 nominees to visit in school. In September of this year Audrey Strong of the Salter's Institute and Chris Peel of CLEAPSS visited The Victory Academy and stayed for 2 hours interviewing myself and my Head of Science. In October, I received notice that I had been awarded.

I am truly delighted to receive this award. It means a great deal to me to be recognised by such a prestigious organisation - and one supported by some of the most respected organisations in the country. However, the award is not just for me but also for the whole science department and the wider school community. We are one team and it is only as a team that we can ensure we are giving our students the best education possible with a strong grounding in science that will benefit them in the next step in their education or in the world of work. I am proud to represent all technicians in this way.



Maureen speaking with Dr Kay Stephenson

Congratulations to Maureen who has been awarded the Salters' National Award for Science Technicians 2019.

This recognises her outstanding contribution to the Science Department in supporting and enabling high quality practical work.

My Registration Story

Applying for professional registration as an RSci

PROFESSIONAL REGISTRATION

James Fox, Laboratory Manager in Biology, shares his personal experience of applying for professional registration and explains how it has benefited his career and why it makes sense to know more about the process before you submit your application!

In 2016 I knew a job I wanted to apply for would be advertised with the request that applicants be "professionally registered or prepared to work towards professional registration". I decided to make an application and went ahead without advice via the Science Council. Honestly, I found the process long and frustrating: I filled the long form out expecting to be automatically awarded Registered Scientist (RSci) based upon my experience and qualifications. However, I was asked to revise my application twice to provide further and more in-depth evidence. I was angry: I had 10 years research experience and a PhD - how was this not sufficient for the assessors? Nevertheless, after the additions, I was duly awarded an RSci and joined the Royal Society of Biology (RSB) as my professional body. The RSci once-only application process costs around £15 but there is also the cost of the annual registration fee of £25 + the society membership of around £135. You can claim tax back on these amounts if your professional body is listed via the Government Gateway so after completing a short application form in the following April I received a small reimbursement cheque from the HMRC!

RSB requires you to log your continued professional development (CPD) in its online system: there are a number of different categories and you can only hit a certain maximum number of CPD credits per category to fulfil the required 50 CPD credits / CPD hours. However, it is fairly easy if you do it gradually over the year and remember to include everything! I also used my RSB membership to get a significant reduction on a training course.

Membership with the RSB allows you to include the nominal letters MRSB alongside your RSci and also sends a monthly magazine, The Biologist.

After two years of RSB membership, my role here at the University changed (I was now a lab manager and no longer a research associate) and I started to feel I wasn't fully utilising my membership apart from the one training course reduction. Whilst I enjoyed receiving The Biologist, I did not think I was getting enough from my membership so I decided to change professional body to the Institute of Science & Technology (IST). It's a more relevant professional body for me and there is also the bonus that their membership fee is a more reasonable £51 per year, which again is tax deductible! Their application process required me to send over copies of my qualification certificates, my RSci award and a short application form. The IST conference looks to be very useful and the Institute sends an interesting monthly newsletter email. The RSci transfer process was very simple: the IST took care of most of it, I just emailed RSB to notify them that I would not be renewing my membership because I was transferring.



James is a Laboratory Manager for Biology at the University of York. James is also a Registered Scientist and Member of the Institute of Science & Technology

Since being professionally registered, I decided to become a Registrant Champion, which essentially means the Science Council have sent me some posters and leaflets to take to events and for me to tell my registration story to others to try to encourage them to follow. I also then became an assessor, this involved a one day training course in London and then assessing two applications which were also marked by more senior assessors. My mock assessments matched those of the senior assessors, so I was able to start assessing other applications 'for real' during a probationary period. To maintain being an assessor, I have to assess a small number of applications per year, but the number is not onerous and you can refuse if you're particularly busy when the request comes in. The training and assessor process highlighted to me that the application form has to be written in a certain way highlighting specific skills / experiences / outcomes and with the use of 'I' and not 'we' at all times to allow the application to be successful.

I look back now and wish I had had the experience or some assistance before I wrote my application, as I'm sure it would have been an easier process!

I should say that my line manager has commented, that me having my professional registration was a factor in me being awarded my current position, so for my personal circumstances, it has definitely been a worthwhile process. I gladly do CPD throughout the year but being professionally registered forces me to log it and keep a clear record, which I realise now is no bad thing when it comes to performance / role reviews or for any future job changes. As such, I plan to maintain my RSci registration and furthermore will be looking carefully as to whether I meet the criteria for Chartered Scientist (CSci) later this year.

James Fox, PhD MPharmacol(Hons) RSci MIScT
MISTR AFHEA

Science Council Registers

CSci
Chartered
Scientist

Chartered Scientists demonstrate effective leadership, using their specialist knowledge and broader scientific understanding to develop and improve the application of science and technology by scoping, planning and managing multifaceted projects.

RSci
Registered
Scientist

Registered Scientists apply their skills and knowledge whilst working autonomously and have the ability to resolve problems and identify, review and select appropriate techniques, procedures and methods.

RSciTech
Registered
Science Technician

Registered Science Technicians work with minimal supervision in technical roles, delivering essential scientific services and support within laboratories, schools and universities, hospitals and in many other workplaces.

CSciTeach
Chartered
Science Teacher

Chartered Science Teachers combine the scientific knowledge and understanding with the skills and expertise required by individuals involved in the practice and advancement of science teaching and learning.

Contact us and find out more

registration@sciencecouncil.org | 020 3434 2020

www.sciencecouncil.org



@Science_Council



Our Registered Practitioners

Recognising the skills of Creative Industries Specialists

PROFESSIONAL REGISTRATION



Manchester Metropolitan University Creative Industries professionals receiving their Registered Practitioner certificates from Dr Helen Sharman at their Technical Services Conference.

Over the course of last year, many skilled technical staff within the creative industries stepped forward to take action to show everyone that the work they do is exceptional, their skills and knowledge drive the sector forward, and they follow several activities throughout their work and outside of work to improve themselves professionally.

Congratulations to all those who have been involved, we have almost received 100 registered practitioners so we are therefore getting ready to approach some collaborators that will help to bring the professional framework a new look as well as giving it national recognition and backing.



Yilis Suriel (Left), Matt Robinson (Middle) and Travis Roush (Right) receiving their certificates from Newcastle University.



Adam Stead (Left) and John Jack (Right) receiving their Registered Practitioner certificates from our Director of Technical Services, Dr Karen Henderson (Middle). Presented by Deputy Vice-chancellor, Gavin Brooks. University of Reading.

Technical Spotlight

Rafiqul Hussain, Laboratory Manager

#TechnicianJourney



Rafiqul works in the Genomics Core Facility at Newcastle University.

What do you do at your institution?

I am the Senior Research Technician in the Genomics Core Facility. We have the latest technologies and methods to deliver Next Generation Sequencing services and support single-cell research. My duties include training researchers how to use the resources. Popular ones - Laser Capture Microdissection and 10X Genomics platforms, looking at biology at the single cell level.

A typical day involves the above and also working on sequencing/ single-cell projects; stock taking and ordering; equipment maintenance; lab organisation - working to GLP levels & in charge of Health and Safety.

Why did you want to work as a Technician?

During my Biomedical Sciences degree, I developed an interest in genetics and the tools used to explore its impact on human health. I am patient, good at problem-solving and pay attention to detail. Being a technician in this evolving field keeps me motivated - I'm constantly learning new skills and techniques.

What makes your role so vital at your institution?

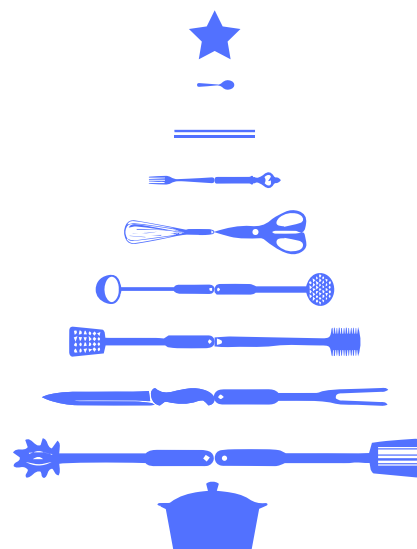
In a nutshell, expertise and experience no-one else has. NGS and single-cell work underpins so much research here. What I bring to the bench is skills to ensure projects and research data is delivered cost efficiently and on time. What drives that? Professional pride. Being a technician - doing things well!

What did you do before you became a Technician?

I was very determined; a molecular biology laboratory beckoned. Landed such a role (in 2003) three years after graduation (2000). Did some part time work, bank clerk being one - not for me. Joined Newcastle University in 2006 and haven't looked back!

What do you enjoy doing when you are not working?

My young family keep me busy. Any spare time I get, and in no particular order, I like to read, watch football, go to the gym, and do some DIY. Although, the last one feels more like work!



Technical Spotlight

Tracey Davey, Experimental Scientific Officer

#TechnicianJourney



When Tracey isn't working in Electron Microscopy, she enjoys going clay pigeon shooting with friends

What do you do at your institution?

I help to run the Electron Microscopy (EM) service which is part of the core facilities at Newcastle University. I have been an electron microscopist for over 20 years. There is no typical day.

We have a customer base of researchers throughout the university and beyond so the samples are very varied, brought to us to process either for scanning electron microscopy or for ultrathin sectioning ready for viewing on the Transmission Electron Microscope (TEM). Samples can be muscle, drosophila antenna, organoids, kidney, you name it...

Why did you want to work as a Technician?

Working as a technician happened by accident. I studied photography and fashion design at college in the eighties but the job market was limited. I'd always like science at school so with my science qualifications I applied for a job as a lab technician at a local filtration company.

What makes your role so vital at your institution?

My job is very specialised. It's technically demanding plus you need to interpret the images on the electron microscopes. Years of experience with many samples help enormously with this.

EM images can add impact to your publications so it is important for universities to have EM departments.

What did you do before you became a Technician?

Apart from a brief stint as a pattern cutter for Paul Smith and the MOD, I have always worked as a technician in some capacity, including working as a school technician.

What do you enjoy doing when you are not working?

When I'm not at work, and apart from enjoying family time, I do clay pigeon shooting.

I am very passionate about introducing ladies and youngsters to shooting. It is a great sport and it's fabulous to see someone's face when they hit their first clay.

**Congratulations Tracey
on recently gaining your**



Dates for your diary / Jobs

What's happening around the UK for technical staff?

Research Data Management Forum

When: 10th January
Where: London, UK

HEaTED Scotland Regional Network Meeting

When: 23rd January
Where: Belfast, UK



TMU Conference

When: 1st - 3rd April
Where: Cardiff, UK

UBMA Conference

When: 29th - 1st May
Where: University of Limerick, UK

Working in Partnership Conference

When: 24th June
Where: Newcastle, UK



IST One Day Technical Conference 2020

When: 16th September
Where: York, UK

JOB VACANCIES

If you'd like to post a job advertisement in our future newsletters, please contact office@istonline.org.uk

Specialist Technician (Process Engineering Technician)

University of Bristol
Bristol, UK

Closing Date:
19/12/19

Flood Risk Management Asset Performance Team Leader

Environment Agency
Bedford, UK

Closing Date:
12/01/20

Laboratory Technician
Food Microbiology (Bottom of page)

ALS Laboratories
Rotherham, UK

Closing Date:
No expiry

The NTDC are Running a Photo Competition for Technical Staff

The NTDC is holding a photo competition for technical staff across the country. As always, our aim is to promote the vital role that technical staff play in their workplace.

Submit a high-resolution photograph of you and your work – this can be anything you are responsible for making or maintaining in your workplace. Let us know who you are, what you do, and why your role is vital to your institution. If you like, you can also send in a few paragraphs telling us about your technical journey, or your role, for a chance to be featured on our website!

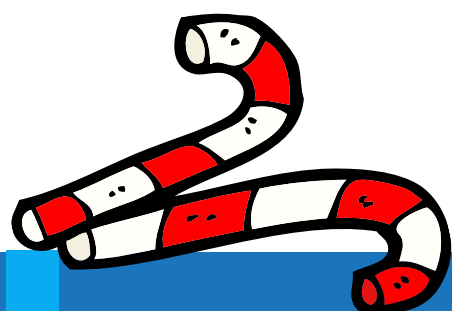
To enter this competition, upload your image and description below, email it to us at ntdc@sheffield.ac.uk, or find us on Twitter @NTDCtweets and use the hashtag #NTDCphotocomp.

Find out more information at: www.ntdc.ac.uk/photo-competition

All entries must comply with the terms and conditions on our website.



WIN!
£150
in vouchers



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Our Valued Affiliated Organisations



Our Corporate Affiliated organisations can receive a number of benefits from the IST including promotion / delivery of events and workshops for technical staff, support for and promotion of Professional Registration, validation of in-house training programmes etc. Other more bespoke benefits can be discussed, where appropriate.

Please contact office@istonline.org.uk or visit our website for more information:
<https://istonline.org.uk/membership/corporate-affiliation/>



GET INVOLVED

How you can get involved with the IST

Contribute to our Newsletter

IST members have the opportunity to contribute to the quarterly newsletters and our international annual Journal. Contact office@istonline.org.uk to request an opportunity to write an article. It can also provide you with CPD points for your annual reviews. The Institute of Science and Technology is Your Professional Body, so make the most of your member benefits and consider writing for the Newsletter and Journal.

Contribute to our Journal

Do you have any articles that you feel would be of interest to the technical community? Or do you need to promote a relevant article or event? We are looking for articles to include in the next IST Journal, so if you do have anything then please get in touch. Please contact us at office@istonline.org.uk or you can get in touch with the editors below.

Special Thanks to This Month's Contributors:

The IST gives its thanks to their members and individuals who have contributed to this edition of the newsletter: Jantze Holmes (University of Lincoln), Helen Wright (University of Sheffield), James Fox (University of York), Rafiqul Hussain (Newcastle University), Tracey Davey (Newcastle University) and Philippa Nobbs (IST Acting Education Officer). Many thanks to Manchester Metropolitan University, Newcastle University and University of Reading for the Registered Practitioner photographs.

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Merry Christmas and best wishes for a successful 2020.