

TECHNICALLY SPEAKING

ISSUE 2 MAY 2019





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FOREWORD

Welcome to the Second edition of Technically Speaking



Dr James Howard
Director of The Academy

Welcome to the second edition of Technically Speaking. A newsletter by the technical workforce for the technical workforce.

It has been great to look back over the last four months since we launched this newsletter and see the progress of the initiatives that have been developed as part of the Technician Commitment. It really feels like a breakthrough is happening and that technicians are finally getting the recognition they deserve. I have seen internal initiatives like the launch of the Technical Network held in April and external initiatives e.g. the launch of the 'Outstanding Technician of the Year' within the Times Higher Education Awards.

Ultimately these initiatives are designed to give technicians from all disciplines a voice in how they want their profession to be seen, recognised, developed and sustained. One such activity that we hope will

meet all these objectives is the upcoming Technician's Showcase due to be held at the Central Teaching Labs on the 25th June 2019. There are over 30 activities planned so far including inflatable planetariums, green screen demonstrations, acoustic custard and cave art experiences. These are just some of the highlights you can expect at the Showcase, which opens at 10am and closes at 3pm. Registration is not required, and attendance is welcome on a drop-in basis so please spread the word to as many staff as possible.

The work of the Technician Commitment Steering Group continues, and many actions identified in our [24-month action plan](#) are beginning to come to fruition. However, that doesn't mean we are not interested in hearing views or ideas from technicians and their managers on how we can improve and develop their careers. Should you wish to contact us please do so using the email below.

The Academy is here to support this endeavour by facilitating the actions identified in the plan. If you would like to contact us about anything mentioned in the newsletter, or if you simply want to get involved with this work, please email us at: theacademy@liverpool.ac.uk or find us on twitter at: [@LivUniAcademy](https://twitter.com/LivUniAcademy)

#TechniciansMakeItHappen



TECHNICIANS BIO

Emma Coates & Lynne Chapman CENTRAL TEACHING HUB

Emma Coates and Lynne Chapman are technicians working at the Central Teaching Hub, a facility that consolidates much of the undergraduate teaching within the Faculty of Science and Engineering.

Describe your work area and your role.

EC - I work in a chemistry undergraduate teaching lab and my role is to set up and provide equipment for 1st, 2nd, 3rd years, Kaplan and outreach, we also troubleshoot with various pieces of analytical equipment.

LC - I work in the Synthetic Chemistry lab in the Central Teaching labs as a technician.

What does a typical day look like for you?

EC - A typical day would include cleaning up the lab ready for students to start, going to the chemistry stores to get consumables, solvents and getting rid of waste solvents.

LC - Every day is different which is what is good about the job. We set up the experiments for the undergrad labs and then assist them with any queries they have. Some days we have schools in for outreach and we set up fun experiments for them. We also trial new experiments for the undergrad courses. In between jobs we do the tidying, cleaning and washing up to keep the lab clean and tidy.

What's your favourite bit of kit?

EC - My favourite bit of kit is the NMR because I've learnt a lot about it through the students making so many mistakes! I like that I can now predict their problems before they've even happened.

LC - My favourite bit of kit would probably be the GC's (Gas Chromatographs) as when the students use them for analysis of their products I seem to spend a lot of time with them sorting out why their results are not as expected. It's usually because they have not inject anything!!!

What's your favourite task?

EC - My favourite task is maintaining the different analytical equipment to make sure they're running properly for example running a sample through the GC's or PQ test on the infrared

spectrometer.

LC - My favourite task is working with academics to develop new experiments.

What's the best project you have worked on?

EC - The best project I have worked on is help trail a new experiment for 1st year students by running several different experiments, tweaking it each time so that it gave the right results and had the best possible method for the students to understand.

LC - The best project I have worked on, I'm not quite sure it's hard to say as we provide a service here mostly. In a past job the best project I worked on was the development of an environmentally friendly fabric conditioner. The project ran for 7 years and we managed in that time to launch the new product.

Describe your career path. How did you get to where you are now?

EC - I started off as an apprentice lab tech in the CTL, doing my applied science BTEC once a week on day release. I also completed a level 3 NVQ which aided me in successfully getting a full time post.

LC - My Career path to date: I started when I was 18 at Unilever research in the Fabric conditioner development department, I completed my HNC Chemistry and degree with them on a day release basis. After 7 years with fabric conditioners I moved to the Environmental testing department, here I tested product components to see if they would cause damage to the environment through different pathways including soil, aquatic and sewage systems. From there I moved to a High School Chemistry technicians job as I needed to be off in the school holidays to fit in with family life. Once my children had grown up I moved to this job at the University, I have been here 3 years now.

What part of your job do you most enjoy or get the most reward from?

EC - The part of my job I enjoy the most is the fact we get to work with students ranging from primary school to PhD, academics, professors and technicians in other buildings, we all work together to provide the best for the people working in our labs.

LC - The part of my job that I most enjoy is the fact that every day is different, no two days are the same. I also like the fact that you meet many different people during the working week.

What's the best thing about being a technician?

EC - The best thing about being a technician is that every day is different and at the end of the day I always go home with job satisfaction.

LC - The best thing about being a technician is the variety of jobs that you get to do throughout the working week.

.....
"The best thing about being a technician is that every day is different."

Ness Bontanic Gardens



In 1898 Liverpool cotton merchant Arthur Kilpin Bulley had a vision to create a garden of great beauty and significance and set to work laying the foundations of what would become one of the UK's major botanic gardens. Bulley was one of the first people to sponsor western collectors to travel to China and collect plants for introduction into western ornamental horticulture which were then distributed through his seed company, Bees Seeds. After his death, Bulley's daughter Lois presented the Gardens to the University of Liverpool in 1948

with an endowment of £75,000. Since then the site has expanded to 64 acres and in time has become the modern botanic garden it is today.

In this edition of Technical Excellence Tim Baxter, Senior Technical Lead at Ness tells us about his work.

I have sole responsibility for understanding the plant collections at Ness and all botanical technical elements in the garden. My main job is to maintain data integratory of the plant collections along with maintaining the living plants database including keeping records on plant health and legal paperwork. I'm also responsible for labelling of the living collections, producing herbarium specimens to be stored at Liverpool World Museum, producing the biennial University of Liverpool Index Seminum (seed list), propagation of interesting wild origin plants for study, leading guided tours and giving talks to local gardening groups, writing publications and occasional teaching of adults, be it visiting university groups or the general public. The list

of tasks is rather long, but it does help keep the job varied.

Botany is the scientific study of plants and is a broad umbrella for many overlapping disciplines including biochemistry, ecology, physiology, cytology and genetics. Botanists often specialise in one area as no one person can know it all. Most botanical work is very long-winded, studying, measuring and evaluating plants that take years to grow and involves both lab and field work.

The main purpose of botanic gardens is to provide a genetic resource of living plants, stored seed and herbarium material for use in science and research, education and plant conservation. They are a living library that concentrates diverse information in a single place, providing a worldwide network of expertise, skills and knowledge. The rationale behind what plants are grown depends on each garden, but at Ness the main rationale is plant taxonomy. Taxonomy is the study of and description of natural diversity. The taxonomic work at Ness has

including Birches (*Betula*), Rowans (*Sorbus s.l.*), Alders (*Alnus*), Spiraea and Ivies (*Hedera*). It houses some of the most important collection of these plants that encompass as much of the natural diversity within these genera as is possible, climate and resources excepting. Ness also houses important collections of plants from western China and Tibet, several of which have been described as new species to science through the taxonomic work of Dr Hugh McAllister. This work continues with a continuation of work on *Sorbus* as well as my own area of study, *Spiraea* – a shrubby member of the rose family from temperate regions.

Gardens are as much about the people that create them as they are about the plants that grow in them. The waxing and waning of any garden is a direct result of those involved. Great gardens are created by great horticulturists, all of whom have four key attributes: knowledge, enthusiasm, vision and dedication. Horticulture is a lot more than cutting hedges and lawns, and knowing what a plant is, how it should be grown, where it should be planted and how it can be propagated are the nuts and bolts of good horticulture. The knowledge that stems from experience and learning through

practice are all familiar territory of any technical staff.

A major part of the work at Ness is in the ongoing labelling audits of the living plant collections. The gardens are split into areas, each with a list of plants that should be found growing there. This is taken into the field and all plants in a particular area are identified. The database and paper records system are updated. Labels are then made on a rotary engraving machine and attached to the plants. This is an involved process and more than anything the skill is in knowing what something is. The end result is a correctly labelled plant with full and complete accurate records. This is an important technical task for any garden, and especially botanic gardens that are living libraries. Most of the time this is a straight forward task except where there are queries including loss of data, misidentification, or in particularly difficult to identify groups of plants, including most of the more important plants at Ness.

One output of this labelling work is the finding of species new to science. Occasionally something arises that is clearly unlike anything else known in cultivation, the wild or in herbaria. One example of how this is the forthcoming description of a new

species of *Lindera*. Known commonly as spicebush for the culinary use by the First Nation people of North America, *Lindera* is a genus of about 100 species in the laurel family (*Lauraceae*) from temperate to sub-tropical regions in the northern hemisphere. A plant was collected in 1999 from south-eastern Tibet and named tentatively as *L. praetermissa*. On further study it became clear that the Ness plant is something unique. The leaves were distinctly different from any other *Lindera* and is separated by some 300 -400 miles of large mountains. The species needs a new name which is in the process of being written up. The plant is also exceedingly rare in cultivation, known only from two plants in the UK including the one at Ness. All efforts to propagate it have so far failed.

Ness is an amazing and inspiring place to work, but it is also challenging too. Marrying the needs of a public tourist attraction and the highly esoteric but important scientific and conservation work is rather difficult. Like all organisations, there is always hope as long as there are good enthusiastic and knowledgeable staff involved. The gardens are a major and important asset in the university and should be used properly.

"Ness is an amzing and inspiring place to work, but it is also challenging too."



Liverpool Technical Network

Launch Event

On Wednesday 24th April Liverpool Technical Network held an event at the Foresight Centre to mark its official launch.

The event opened with Paul Gilbert, Technical Manager from Integrative Biology, who gave an overview of the Technician Commitment and the work the University is undertaking to meet the targets set out in its 24 month action plan. Suhel Miah, Programme Manager at Higher Education and Technician's Educational Development (HEaTED), was next up to talk about the development opportunities available to staff through the Universities partnership with HEaTED and the positive change in attitudes towards the technical workforce across the sector. Matt Murphy, Senior Lecturer in Engineering Design, then gave a talk on how the School of Engineering is improving the way it teaches undergraduates by encouraging the inclusion of technical staff in developing and delivering teaching activities. The mornings talks were closed by Jane Banks, Business Development Manager at the Science Council, who presented the benefits of

professional registration and an overview of the registration process.

Following the talks staff were invited to contribute feedback on a number of issues, including the direction of the network, via a number of interactive activities. The feedback has shown that technical staff would like to see more training and development opportunities, in particular, a shadowing and secondment scheme. This echoes feedback that there is a perception that most training offered to technical staff focuses on 'soft skills' and that there is a lack of 'hard skills' development opportunities.

Tony Topping, event organiser and chair of the network steering group, said "The event went down well, it was fantastic to see so many of our technical colleagues engaging with the network. It's been a great start for the network and we're hoping to carry this momentum forwards to continue promoting the technical cause."

<https://www.stem.org.uk/heated>

<https://sciencecouncil.org/>

<http://bit.ly/livtechhub>

Increasing the visibility THE TECHNICIAN'S SHOWCASE 2019

Following on from a successful showcase during the OnePS conference in 2018, various technicians are again planning to showcase their work on the Tuesday, 25 June between 10am to 3pm in the Central Teaching Labs.

The Technician's Showcase is open to all staff across the University and is a great opportunity to meet some of the technical staff and the equipment they use to enhance the teaching and research activities at the University.

The showcase supports the Technician Commitment which aims to give greater visibility to University technicians, enhance career progression, create sustainability and to recognise professional registration.

There are over 30 activities planned so far including inflatable planetariums, green screen demonstrations, acoustic custard and cave art experiences. These are just some of the highlights you can expect at the Showcase.

Registration is not required, and attendance is welcome on a drop-in basis. However, lunchtimes are expected to be especially busy so to avoid disappointment please try to schedule a visit either side of 12pm and 2pm.

You can find out more information about supporting the development of technicians via The Academy's Technician's Hub available at: <http://bit.ly/livtechhub>

Calling all Technicians!

We would like the event to be a true representation of the varied work that is done across campus and so we are inviting the whole technical community to get involved and showcase their work.

A showcase stand can be anything from a poster giving a brief overview of your work to a piece of kit that you use or a demonstration that you carry out, as long as it shows off what you do and gets a conversation started about your work. We have set up a team to help you, from developing your ideas into something that can be showcased to helping you with anything that needs to be transported to the venue.

The whole building has been booked and all equipment and facilities will be at your disposal should you need them for your stand. Tours of the CTL can be arranged if you would like to see the facilities available.

If you are interested in taking part please contact Irene Cooper at: cooper@liv.ac.uk



Technicians Survey 2018

Headline Findings

Earlier this year a survey was launched by the Institute of Integrative Biology as part of an Office for Students funded PGR Catalyst Project, to explore the role technicians play in supporting student mental health and wellbeing. The survey was ran in partnership with the Science Council's Technician Commitment, the Institute of Physics and the Royal Societies of Biology and Chemistry and the University of Nottingham.

There was a fantastic response with 735 complete responses from across 42 institutions across a wide range of discipline areas, and special thanks go to the 66 technicians from the University of Liverpool who took the time to complete the survey. A report on the full survey findings will be launched at a sector wide event on 20th June at Burlington House (Royal Society of Chemistry) in London.

The survey has allowed us to shine a light on the vital pastoral support role technicians play, and has highlighted that this largely goes unrecognised with many technicians wanting to offer help and support but feeling ill-equipped to do so due to lack of training or basic information to support signposting students to appropriate services.

As part of the Catalyst project, an online training resource for staff is currently being developed and will be available later this year. For more information on the project or to get useful information to support you in pastoral conversations with students please contact Maizy Jenner.

51% of technicians have had a PGR student disclose a personal problem in the last 3 years

Only 3% of respondents said providing personal support to PGR's is a formal part of their role.

55% of technicians responded with examples of PGR Issues, with over 1,100 issues being cited.

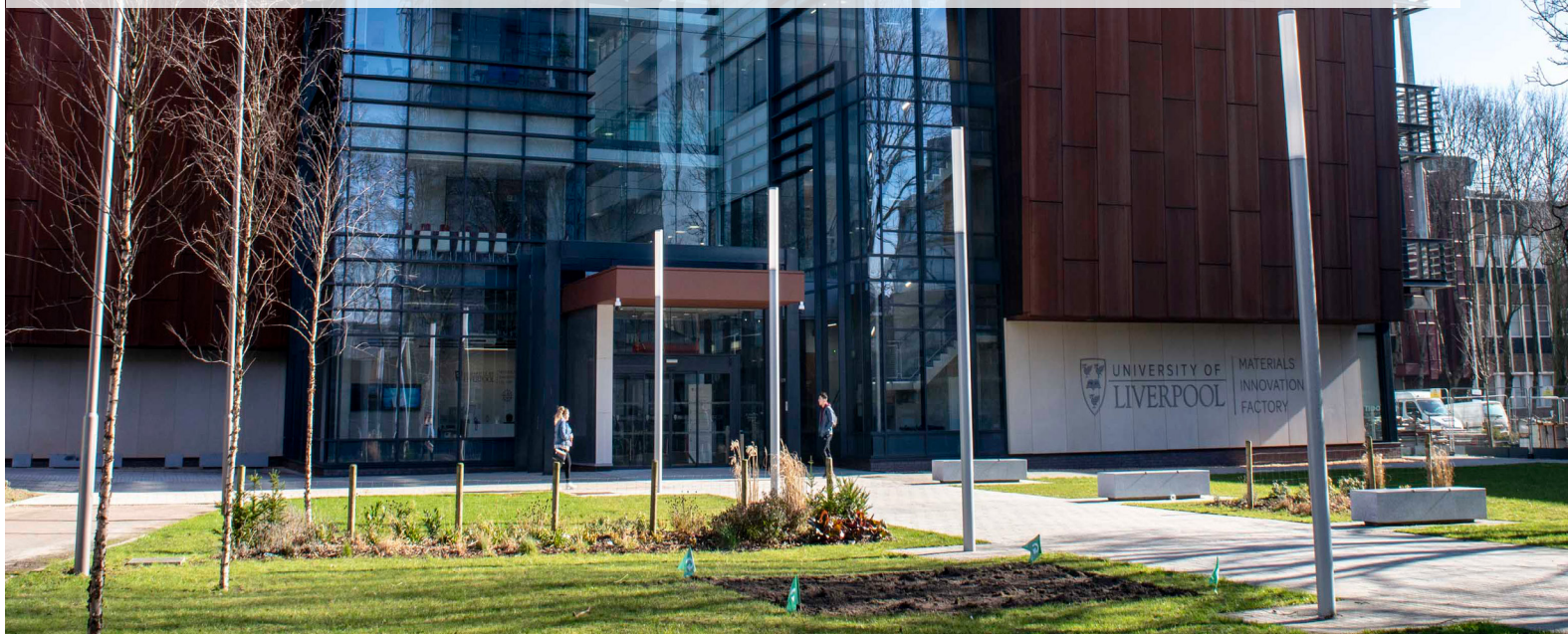
57% of technicians responded to say they only sometimes or never felt equipped to support students and signpost them.

71% of technicians had not had training or did not know it was available.

Workplace Tours

MATERIALS INNOVATION FACTORY

#LifeofaLivTech



The MIF is a multi-million pound collaboration between the University of Liverpool and Unilever. The MIF Open Access Area houses one of the highest concentrations of materials Science Robotics in the world, and a suite of advanced analytical equipment.

Get Tickets at bit.ly/miftour



MATERIALS
INNOVATION
FACTORY

@LivTechNetwork

Technet.contact@liv.ac.uk

Places are limited so
booking is essential.

Tuesday 21st May

10:00-11:00

14:00-15:00

Thursday 23rd May

10:00-11:00

14:00-15:00

Times Higher Education Awards OUTSTANDING TECHNICIAN OF THE YEAR

This award will be given to an individual whose exceptional practical skills, commitment and vision have enabled the highest quality teaching, research or knowledge transfer. It is open to technicians working in any discipline in UK universities and research institutes. Entries will be accepted from institutions, technicians themselves, their colleagues or students, but in all cases testimonies must form part of the supporting documentation.

- Judges will be looking for evidence of a technician's essential contribution to a project or ongoing piece of work. How was the impact evaluated?
- Describe how the nominee works with academics, students and others to build a strong working environment in which all parties thrive.
- Beyond the day-to-day role, has the nominee been involved in building a strong community of technicians within an institution, or undertaken other activities in line with the aims of the Technician Commitment?
- Does the nominee represent technical staff on institutional committees or boards? If so, explain how they have successfully brought the technician's voice to its decision-making.
- Explain how efficiencies and innovation are delivered.

Are you interested in applying?



TECHNICAL DEVELOPMENT

Teaching

The Academy offers two options as a first introduction to learning and teaching in higher education, which may serve as the prerequisite for taking up teaching duties at the University. For those who will be primarily supporting undergraduate practical classes as demonstrators, we offer two half day workshops – an Introduction to Demonstrating, and a follow-up Advanced Demonstrator session.

Open to anyone new to teaching, we also offer a full day Introduction to Supporting Student Learning workshop. This one-day introduction to teaching will provide a great starting point for anyone new to teaching, in particular those who will be leading tutorials or seminar groups, giving occasional lectures

or assisting with marking of assessments.

Finally, for those who wish to continue their development in university teaching and gain some formal recognition of this development, we offer the Foundations of Learning & Teaching in Higher Education programme. More information about this programme can be found on the FLTHE page.

For further information about any of these programmes, please contact Dr. Eli Saetnan: saetnan@liverpool.ac.uk



Leadership

The Management Essentials Programme is aimed at all levels of practising managers who are responsible for managing and developing individuals, building teams and scoping and planning the workload of the team. It is designed to support all managers with the fundamental management skills, knowledge, tools and techniques needed to get the most out of the individuals and teams they manage.

Online resources compliment the six face-to-face workshops (see details below). As well as introducing relevant topics, models and theories the workshops provide an opportunity to discuss topical issues facing managers in the workplace. They will also provide an understanding of some of the key skills in managing yourself as a manager and understanding the expectations others have of you in the role.

The programme aims to:

- Clarify the role and expectations of managers.
- Develop management skills and behaviours, based on an individual personal development plan during and beyond the programme.
- Develop a network with a group of managers in similar roles facing similar challenges, who can work together and support each other.

Find out more at:

<https://www.liverpool.ac.uk/intranet/the-academy/leading/>



HEaTED

We have corporate membership of Higher Education and Technicians Education and Development (HEaTED), which allows any technician access to the website and, through that, to their training provision.

HEaTED:

- Identifies, sources and develops specialist training courses for technical staff from all disciplines.
- Provides members with discounted rates on specialist and soft skills professional development and training opportunities.
- Manages regional networks to enable colleagues from neighbouring institutions to meet and discuss hot topics, share best practice, promote development opportunities and more.
- Provides an online community where members can expand on discussion from regional network meetings, raise hot topics and share discussion and best practice with colleagues from other institutions.
- Uses the regional network meetings and online communities to serve as a 'representative voice' for the UK technical community in Higher Education and related fields.

Visit the website at <http://www.heated.ac.uk/>

Mentoring

Mentoring can encourage you to challenge your assumptions, broaden your horizons, raise your aspirations and increase your achievements through individualised support. You can become a mentor yourself or use the service as a mentee. The relationship between a mentor and a mentee may last up to a year, or maybe longer; during the meetings, the focus is on the whole person, particularly in relation to career progression and enhancement. To access the Mentor Portal click here:

<https://www.liverpool.ac.uk/intranet/hr/people-development/mentoring/>

Safety

Technicians often work in dangerous environments and therefore it is essential that the whole technical community keeps up to date with their health and safety CPD. To access the development offer from the safety team please click here:

<https://www.liverpool.ac.uk/intranet/safety/training/>

External Development

The Royal Society of Chemistry has an approved training course database. All the courses have been peer-reviewed against a set of criteria, to ensure that they can support the professional development of those who attend. The database includes courses in the classroom, in the lab, or online, and there's something for every stage of your professional development. Search by subject area, location, duration, event type, and skill level to find the course that's right for you.

Click here for more information: <http://www.rsc.org/cpd/training>

ONLINE LEARNING

The Academy Learning Zone has over 150 exciting and engaging e-learning modules from 'How to use Microsoft Word' to 'Creative Problem Solving'. To see a list of available modules, [click here](#).

The Professional Development Toolkit provides practical information and access to advice, strategies, tools and methods that can be put into use each day.

The University has a library of elearning modules that are not obligatory but may be relevant to your role. Topics like 'Understanding Modern Slavery' 'Prevent' and 'Ethics Training' can be found by accessing this [Vital site](#).

Tuck into bite-sized elearning modules designed by bestselling author Liggy Webb, who is considered a leading authority on resilience and behavioural agility. She works with many organisations, supporting people to establish positive habits and behaviours.

[Discover introductory courses on Resilience, Personal Agility, Changing Behaviours and more](#)

Support and development is also provided by other University departments. Further information can be found by clicking on the following links:

- [Computing Services](#)
- [Library](#)
- [Centre for Innovation in Education](#)



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The future of the newsletter

Do you have a story to tell?

If you have a contribution or idea for future newsletters then please email theacademy@liverpool.ac.uk with your text and as many pictures as possible.