

Our Technician Commitment

Introduction

It's six years since the **University of Warwick** signed up for the **Technician Commitment** and we've achieved a huge amount in that time.

Thanks to the commitment from our Senior Management Team and our engagement with technicians we've introduced things that will make a difference to our technicians, and we aim to do more. Throughout this brochure you will read about things that we have achieved in through our action plans and what we want to achieve into the future. We can't do this without the help of our technical community and you will also read about ways that you can feed into our Technician Commitment and really make a difference.



Warwick became a signatory to the Technician Commitment in 2017 and since then, a huge amount of work has been undertaken on job families and career development.

Of course, there is still much to do; but we are committed to the work that this requires. Now, we are involving the technical community with the project, listening, and focussing on things that are important to our technicians at this time. This is vital and important work in its own right. But there is an added element to this. It has become increasingly clear to all staff, not just those involved in particular parts of the university, just what a massive role our technical staff play in our world-class teaching and research. We aim to build on this visibility and recognition over the course of our action plan. I hope that this is a very exciting time to be a technician, with more opportunities available than ever before. We want to make you aware, and enable you to take advantage of these opportunities, whilst also listening to how we can support you further.



Professor Stuart Croft Vice-Chancellor & President of University of Warwick

In this brochure, you can read about some of the outcomes since the inception of our Technician Commitment Action Plan and see how to engage further to shape the next phase.

The Technician Commitment is all about increasing visibility, recognition, career progression and sustainability in a way that benefits technical staff: we will build this together as a community through on-going evolution of the Action Plan, shaped by those whom it benefits most. Greater engagement of technical staff in the life and decision making of the University is part of the plan, as for instance in the recently formed Research Culture Forum that includes students, technicians and academics as equal voices.



Professor David Leadley Deputy Pro-Vice-Chancellor for Research

The TechNet@Warwick website has been created to highlight opportunities and celebrate achievements of technical staff - contributions and suggestions of what you want to see there are always welcome. You can also read about networking and development opportunities designed specifically for technical staff, as on-line and in-person events, especially those provided through the TALENT project that has started to bring together technicians from across the Midlands as well as promoting the technical workforce at a national level. There has been really positive feedback from those who have attended these events and we hope many more technical staff will benefit from a varied program in future, but please do tell us if you really want an event focussed on something different.

I hope that you enjoy this brochure and engage in opportunities to help our vision of making things happen for technicians.



How is the Technician Commitment being implemented at Warwick?

The work on our Technician Commitment is overseen by a Steering Group chaired by Professor David Leadley, Deputy Pro-Vice-Chancellor for Research.

Our Technical Services Managers are also members together with the Director of Research Technology and Technical Strategy with membership from HR. Everything is discussed and decided at the Steering Group and then sub-groups are formed to carry forward the ideas. Input from our Technical Community takes place through Focus Groups, informal chats, organised update events and a recently formed Technician Commitment Sub-Group. This input is crucial to the success of the project and we will continue to engage in this way encouraging Technicians to work with us on smaller projects in the future.

Our initial Action Plan saw work mainly focussed on the formulation of a career progression pathway and Technical Job Family. Technicians have been mapped onto the career progression pathway (via generic job titles), coming into fruition in April 2021. This enables us to track any turnover and career progression more easily and enables Technicians to see the options that might be available to them in the future, should they wish to take them. A lot of work has also been undertaken on a development programme, placement programme and culminated with the launch of a work-shadowing process for technical staff, accompanied by a commitment from the University to authorise at least two day per annum for development activity to support career development opportunities for technical staff. More recently, we have launched our Technical Specialist Promotions Process Pilot, making Warwick only the second institution to implement a promotional route for technical staff. As a pilot, we are eager to get feedback on this process.



Our next action plan has been divided into key themes/areas as follows:

Recruitment, progression and enhancing the skills of the Technical Community

Engaging with and recognising the Technical Community

Visibility of the Technical Community

Technicians voice in an HE environment

Support mechanisms for our Technical Community

The details of this action plan can be viewed at <u>Our Technician Commitment (warwick.ac.uk)</u>.

This is a living document and we welcome feedback and input into this and anything else relating to the Technician Commitment. There are a number of ways you can provide feedback but the most important thing is that you engage. We need you to help us make a difference.

Career Progression and the implementation of the Career Pathway/use of generic job titles

We are also formulating a roadmap of roles which aims to give you an indication of the type of roles that are undertaken at each level/career strand in the University. This roadmap outlines the current job titles of technical staff at the University. It is very difficult to assess what grade a role is from the title. It is often difficult to understand what a person does from their job title too. Over time we will aim to streamline job titles to make them more meaningful.

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The career pathway was formulated to demonstrate the career pathways that might be available to our technical staff. There are a number of routes that your career may take and this can sometimes mean making a sideways move to obtain different skills and knowledge to help you progress. To simplify this we have introduced generic job titles which enable us immediately to recognise where you sit on the career pathway in terms of grade and strand. Our generic titles have been simplified further since the original career pathway was introduced and this is shown below:

PROFESSIONAL REGISTRATION - there are a number of professional bodies across the sector offering support and registration at differing levels from Registered Science Technician (RSciTech), Engineering Technician (EngTech) up to Chartered status. Professional registration establishes your proven knowledge, understanding and competence. Whilst this is not a requirement at all levels it demonstrates your level of knowledge and encourages continuous professional development.

FA1 Support Assistant FA2 Technical Assistant FA3 Assistant Technician FA4 Technician FA5 Senior Technician (Generalist)

FA1 FA2 FA3

Management Strand Pathway FA6 Technical Team Leader FA7 Technical Manager FA8 Senior Manager FA9 Strategic Manager

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We will be looking at the recruitment process for technical staff. It is an area that the University often struggles to recruit into and, according to the Gatsby Foundation it is well known that, nationally, this is an aging workforce in an area that needs to grow to meet the demand from employers over the coming decade. We have already started to work with other Universities in the Midlands to advertise technical roles amongst this Midlands Innovation Network of Universities. Representation of technical staff at each level at Warwick, where size of bubble directly relates to number of people in roles at that level.

We will also be looking at where we recruit nationally, how we recruit technical staff and what we can do to advertise Warwick as an employer of choice for technicians in the future. This will involve promoting the Technician as a career choice for the future.

Technical Specialists Promotional pathway Pilot

Following our commitment to enact the recommendations of the TALENT Commission, we are amongst the first UK institutions to pilot a Technical Specialist Promotional Pathway. This pathway will enable technical specialists to progress based on their own merit against a modified version of the four criteria used for the Academic Progression and Promotional Pathway, enabling recognition for excelling in a role whilst remaining a specialist.

Why open this pathway to technical specialists?

Academic staff have a well-established route and process for promotion based upon a pathway with four core criteria. Increasingly, technical specialists are 'blurring the boundaries', through their direct input to research, teaching and training, and knowledge exchange. This is further demonstrated through recent successes with our technical specialists securing funding from UK Research and Innovation (UKRI). Therefore, with small modifications to the four criteria used for academic promotions, we are able to reflect the differences in roles between the three academic pathways and a pathway suitable for technical specialists. This includes equivalency in threshold scores at each level to the academic pathway.

We acknowledge that not all technical specialist roles will be in a position to take advantage of the pathway due to the nature of the particular role, and so progression will still be achievable through applying for a new position at a higher level, or where there is a business need and significant change in responsibilities, potentially a job re-evaluation. This is in line with all other professional services staff.

The pilot will run alongside the Academic Progression and Promotional Pathway for academic year 23/24, with feedback welcome from all involved or linked to the process upon the completion of the first round of applications. To find out more and regular updates, please visit the website link below:

www.warwick.ac.uk/research/technicians/ technicalspecialistspromotionalframeworkpilot/

TALENT is a Research England funded project which leads and influences change to advance status and opportunity for technical skills, roles and careers in UK higher education and research.

TALENT provides technical staff at the eight Midlands Innovation institutions, including Warwick, with access to a wide range of bespoke training and funds.

Bespoke Transferrable Skills Training

TALENT provides a wide range of training programmes and an open programme of standalone sessions. The programmes include topics such as leadership and project management. The open programme includes a wide range of topics such as impactful presentations, persuasive business cases and critical reflection.

The team also host Festivals of Learning, with a condensed programme of events across a couple of weeks, with something to interest everyone!

For the latest courses and to sign up please visit: www.mitalent.ac.uk/Learning

Funds

TALENT offers a range of funds that you can access. If you are thinking of attending a conference or a course to gain specific skills outside the training programme, you can apply for the Technical Conference and Skills Fund. If you want to spend some time at another Midlands Innovation institution to share best practice or learn a new technique, the Technical Placement Scheme is open for you. Or if you have spoken to a others across Midlands Innovation and see a gap in training, this may be possible to fill using the Collaborative Technical Training Fund. Website links are below to find out more:

Technical Conference and Skills Fund www.mitalent.ac.uk/Technical-Conference-and-Skills-Fund

Technical Placement Scheme www.mitalent.ac.uk/Technical-Placement-Scheme

Collaborative Technical Training Fund www.mitalent.ac.uk/Technician-Led-Training-Fund

Knowledge Cafes

Technical staff across the midlands have come together to form knowledge cafes. These give the opportunity to share best practice, learn from others and help make progress around a particular theme. Currently, there are five knowledge cafes: Apprenticeship, Health and Safety, Outreach, Remote Technical Training and Sustainability. To find out more visit: www.mitalent.ac.uk/Knowledge-Cafes

Driving Culture Change for the Technical Community

TALENT is piloting innobeative ways of working to deliver culture change and strengthen technical career opportunities. Themes include research culture, developing the technical voice, equality, diversity and inclusion (EDI) and knowledge exchange. To find out more see: www.mitalent.ac.uk/Technicians-as-Partners

The TALENT Commission

In February 2022, the TALENT programme has launched The TALENT Commission report, which has gathered new strategic insights into the UK's technical workforce in higher education and research. This was the outcome of 20 months of in-depth research, stakeholder engagement and evidence gathering within the sector. The report sets out a vision for the future of the UK's technical talent and includes 16 overarching recommendations to guide delivery of this vision, as well as a series of targeted recommendations for specific stakeholder groups.

Warwick is looking at how we can incorporate the recommendations from the report into our Technician Commitment action plan. To find out more about the TALENT Commission, visit: www.mitalent.ac.uk/theTALENTcommission

Career Development

The TALENT Technical Careers Advisor is Sarah Allen. Sarah is an advocate for technicians and will be working with technicians across the Midlands Innovation Group.

You can contact Sarah to discuss any aspect of your career development via email (sarah.allen@nottingham.ac.uk).

Advice that you might want to seek may include:

- ▶ 1-2-1 career discussions, including exploring career options and developing a career development plan
- **Coaching and mentoring**
- ▶ Options for development activities that can help you advance your career
- Advice about gaining registration, which level would be appropriate, which Professional Body would be right for you, and how to fill in the necessary documentation

Development opportunities to help position yourself for next steps:

- Soft skills training through TALENT
- Work shadowing scheme
- Funds including placement
- programmes across MI
- Professional registration fund

Support with career management to help identify next steps:

- More tailor made support and opportunities
- for managing technical careers
- Dedicated Technical Careers Manager
- Coaching available to help guide you

The following tips may help you when thinking about developing your technical career:

- **Discover what you want to do research career** options, think about what you most enjoy doing, create a career development plan
- **L** Take opportunities to try different things learn a new technique, join a committee, take on a project, you may discover that you enjoy something new
- Make the most of your PDR this is your opportunity to discuss career goals and development activities that you can undertake with your line manager

Transparent Technician Job Family implemented:

- Provides what is expected at each grade
- **Example roles from** across campus
- Proposed career pathway

Networking and Engagement

What is a network/networking?

A network is a group of people with similar interests or skills and networking takes place when there is interaction/engagement between individuals to exchange information and develop professional or social contacts. Networking can take place on a formal or informal basis. For example, you might meet someone external to the organisation who works in a similar area and exchange contact details with them or you might meet someone at an internal meeting who has skills that you would like to learn about or knows someone that does. Networking can sometimes be about who you know rather than what you know.

Why do I need to network?

Being part of a network may help you to develop contacts in other groups or departments which may be of benefit to you in gaining skills and knowledge to assist you in developing career opportunities. It might be that you network with individuals occupying roles that you are interested in becoming skilled to undertake or with individuals who may be able to help you in opening up opportunities to progress your career. However, networking isn't just about career development but is important at work in general. Engaging with others is key in helping to build communities across an organisation and the sharing of knowledge and skills making a difference.

How do I start to build a network?

Think about the people you know and may have lost touch with and the places that you go to, or perhaps should make an effort to go to in the future.

Join in webinars or go to events/opendays. There are also many online networking opportunities/forums that you can join. Keep up to date with the latest news/ technology in your work area and discuss this with other people. Keep a note of individuals you meet and what you discuss. You might not need their information now but this might be useful to you in the future. Importantly, keep in touch with people, don't just wait for them to contact you.

What might go wrong?

Build up relationships but don't pester people or waste their time. Show an interest in others and their aspirations, don't just make it all about what you want. Don't be shy to ask for help from individuals, don't assume that they know what it is that you want. Networking and socialising doesn't come naturally to all of us and it may take time to build up a network of contacts or you might just have one or two.

Where should I do it?

Networking can take place anywhere, in a formal or informal working environment or socially with friends and colleagues

Are there examples of networking?

There are many examples of how informal networking has helped individuals and also saved time. During the past year there have been several examples such as sharing documentation (rather than starting from scratch), of offers of help to deal with equipment emergencies (that would have taken time to sort out), information being shared (that individuals would not have been aware of otherwise).

There is no right and wrong whatever works for you is fine!

Research Culture

At the Warwick, a positive research culture is at the heart of its research mission to create a fair, collaborative and supportive environment in which to work, inclusive to all faculty - from early career and doctoral researchers, to technicians, research leaders and experienced professors.

People are the central focus and they should have the confidence to question and challenge.

The University has a Research Culture Forum to discuss the current research culture, share best practice and influence future developments in this area. The Forum recently funded a project directed at 'Advancing Visibility, Knowledge and Collaborative Opportunities for Research Technical Professionals'. Sitting within this forum is Sarah Bennett, a technical representative, who recognises the importance of visibility, recognition, career development and sustainability of our Technical workforce. Sarah is open to hearing about successes and issues around the Research Culture that Technicians experience, and to feed these back to the Forum. By working with the Research Culture forum and the Technician Commitment we aim to review the feedback and implement any necessary changes.

Technician Led Outreach Demonstrators

Utilising Research Culture funding, we have had teams of technical staff design, build and exhibit outreach demonstrator pieces to inspire young people and the public, and also help highlight the skills a technical career utilises. The demonstrators have been used both on campus and at high profile events such as national science festivals.

To find out more, please visit <u>www.warwick.ac.uk/</u> <u>research/technicians/outreachdemonstrators/</u>

Knowledge Exchange

Knowledge exchange (KE) is defined as 'a collaborative, creative endeavour that translates knowledge and research into impact in society and the economy'¹ by the Knowledge Exchange Concordat (KEC). This takes many potential forms such as:

- involvement in the creation of innovation and intellectual property (IP)
- working with industry
- enabling access to facilities or providing analysis
- public engagement
- delivering training and development

Technical staff play an increasingly important role in both the lead and support of the above, and this needs to be recognised and made visible. Alongside existing research and teaching frameworks, the Knowledge Exchange Framework (KEF) aims to measure our KE outputs, with KEC supporting advances in outputs.

To make the fantastic contributions of our technical staff visible and rewarded, we ask that you let us know when you have delivered work that could be classed as contributing to KE (send details to technicians@ warwick.ac.uk). We can ensure those responsible for the institutional submissions and strategies for KEC and KEF are aware, and the work is recognised.

Sustainability

Sustainability is a key topic and improving the sustainability within our laboratories and processes is key to Warwick helping towards a sustainable future.

Technical staff are often in a good position to help identify and implement sustainable changes. Below we here from technical staff involved with sustainability and our Estates colleagues who have been working alongside them. The Laboratory Efficiency Assessment Framework (LEAF) developed at University College London, is a webtool which allows laboratories to work towards a defined standard, bronze, silver or gold. LEAF provides a systematic path to improving lab sustainability. It contains useful additional resources and is versatile enough to allow for future developments and updates.

Our central Sustainability team reached out to my line manager to help promote the green agenda at SLS/ WMS and also record any green actions; she then reached out to me to see if it was something I'd be interested in helping with. I joined LEAN (Laboratory Efficiency Action Network) and went to meetings - we heard about the LEAF pilot and signed up. My line manager's support was key initially. I really enjoyed getting involved. The main part of my job is supporting the Genomics Facility and specialised equipment within the School of Life Sciences - the technical nitty gritty - so becoming involved in Lab Sustainability has very much added another dimension to my working life. For those who take part in LEAF, it will help you to think about the lab from the perspective of sustainability, I feel that LEAF can educate and inform your mindset. On a more pragmatic level, we will be required to evidence what we are doing towards sustainability more and more; LEAF provides lab accreditation.

My top lab sustainability tip is traffic light stickers (switch off after use, switch off at the end of the day, ask before switching off) on lab equipment – people often do not feel confident that they have permission to switch off communal equipment; stickers are really simple and helpful.

Lesley Ward Senior Research Technology Support Technician, SLS

Chris Furze

How did you get to where you are now?

I started off in research. I did my Bachelors in genetics at the University of Leicester and a Masters in molecular biology and pathology of viruses at Imperial College London. From there I worked as a Research Technician at Leicester where we were studied the interactions between sugar molecules in bacterial cell walls and the host immune response C-type lectin proteins. I then completed my PhD in the same lab, and after I continued to work there until 2015. I then moved to Warwick as a Senior Research Technician for Dr Liz Fullam, researching sugar recognition, uptake and metabolism within Mycobacterium tuberculosis. I spent about 7 years managing the lab on a day-to-day basis as well as undertaking research for papers. Having reached Senior Research Technician, which was the peak of where you could really go along that stream at the time due to the absence of promotion pathways, I decided to move sideways across into the support team. This gave me experience of the extra work that technicians do around the site. There's a whole body of work that occurs researchers don't realise happens when you have a research focus. I was working for the Technical Support Manager with a responsibility for containment, so I got heavily involved in containment management helping support their day-to-day basis issues, provide inductions, run a programme of statutory testing of the microbiological safety cabinets and planned preventative maintenance. Because of the lack of genuine promotion

opportunities, I had to wait for a role above me to become vacant to progress. I applied for my new role because I had the containment experience which matched the job description and I was successful in the job interview. I'm very keen to stress that it's not actually a promotion, since there were external candidates as well, it's very much more career progression rather than promotion.

What does your current role entail?

I'm a Technical Support Manager within our joint team, but realistically the predominant focus of my current role will be containment manager. As a team we will look after the new modular containment level 3 (CL3) labs that have been built and the containment level 2 (CL2) labs we have at Gibbet Hill but also our satellite sites of CSRL and the Stratford campus. We have an existing CL3 lab that we'll need to transition people from into the new facility when it opens for active research. I'll be managing the statutory testing and preventative maintenance, I will be the departmental point of contact for local exhaust ventilation (LEV), ensuring the university remains compliant with our LEV. I will line manage senior support technicians. We've got a very large containment footprint. I am also reviewing SOPs and risk assessments and responsibilities when it comes to core equipment purchasing, ongoing maintenance & servicing. That's the bulk of the operational nature of my new role as I understand it. I started this role in May, so I'm not fully embedded into it yet.

How did you approach your recent promotion and what was useful in positioning yourself for this?

Even though I have come to this generalist support role sideways from research and the specialist side, there is still a degree of specialism in containment to my current role, which I am bringing from my previous roles. I approach new situations as learning experiences. In research, week to week, I was often doing the same experiments whereas in my current role our daily routine is very diverse. One day I could be dealing with a gas alarm the next I could be dealing with an issue with containment air handling or broken equipment and statutory compliance. Having a familiarity in all those aspects certainty helped but I also improved my own understanding around what I was working on by talking to our contractors and learning the fundamentals of what they did. I recognised that because as a Senior Research Technician and as a Senior Support Technician, I didn't have any line management opportunities I needed to focus and work on those skills. As the MI TALENT team run project management courses, I went on those, as well as collaborative leadership for technicians course and technical management course. These courses certainly developed my management knowledge, adding it to my existing technical knowledge.

Actively working in understanding and developing management skills I positioned myself at a better place coming into my new role.

What tips would you give someone trying to secure a new role?

Having looked for my next role I would start working towards the job I want to do. I would start by understanding what skills are needed and by approaching everything like a learning experience. See what your line managers are doing, how they've done things, maybe how they've not done things and offer constructive criticism upwards rather than just necessarily constructive criticism downwards. Having a free flow of information between all levels from below and from above improves how we work. Definitely making use of the courses that MI TALENT run. I probably would not have succeeded in getting this role if I hadn't been on those courses. I've got a lot of time and positive things to say about the MI TALENT team.

l approach new situations as learning experiences.

What would you like to see our Technician Commitment deliver? What would you highlight as an opportunity related to our Technician Commitment?

From my own personal experience, as we've touched on it and I think it's already currently beginning to deliver, is the idea of promotions. Having this promotion route rather than having to wait for somebody to leave a job. If for any reason I hadn't got this job, I would have then moved to another university or industry and gone to use those skills there. Because the promotion route doesn't exist, it's a very fast way of losing very good talent. If there is a promotion pathway it's easier to formulate a training programme and personal development around that promotion. If there's another job somewhere else and you suddenly decide you want to apply for it, it's only when you first see that job advert that you realise that role exists and that your skills don't match 100%. I would say it makes personal development a little bit trickier, conversely it means that you do have the flexibility to move to other roles if your skills do match. Unless you know what other departments or other employers would be looking for it's hard to necessarily know where you need to develop and where other candidates would be more successful.

Chris Furze

Technical Support Manager, Warwick Medical School

Shannon Ramsay

Tell us how you got to where you are now!

I was adamant when I left school that I was never going to sit an exam again because I can't deal with that kind of stress. So I started looking at apprenticeships and I went through Midland Group training services and they found me this job and a few others. I did all the interviews, and along with the encouragement of my family I decided to join the university. The first year of my apprenticeship was spent at Midland Group Training Services where they taught us how to use all the machines. I got my Business and Technology Education Council (BTEC) level 2 and then the second year, most of the third year I spent in the workshop in the School of Engineering and on day release, I went and did the rest of my BTEC and my HNC. Since then, I have been working in the School of Engineering which has been six years now. Because the rule is that you must learn how to use all the machines perfectly before you can become a design engineer so you know exactly what can be done, I went through that process first and then I spent a couple of years in the School of Engineering design office. Having finished that and since last September, I got moved up to the Engineering Build Space where I do everything.

What does your current role entail?

There is flexibility in the Engineering Build space and so I can do anything that you want. I can be a designer one day, I can be a machinist another, and I love the freedom of being able to do what I want on any given day. I don't have to come in and dread the fact that I've got to sit at a computer for 8 hours. I can come in and do what I want for the day. It's three of us that work here and our job is to provide support to anyone that comes in to use the facilities. Whenever anybody comes in, so that could be students from engineering, students from across campus like technicians and teaching anybody can come in and ask for help with a job, and that could be just looking over a design, helping them use 3D printers, helping with the machinery and then when we have our off days where there's not many people coming in, it's right okay go and train yourself on a machine. Think of a job to do on that machine and go and play on

it for a bit.

Overall, I have received great support and there are plenty of opportunities available for technicians.

What are the key features of the **Engineering Build Space** and what do you do with them (and in supporting students)?

The key features are probably the 3D printers. That's what draws most of the students in because there's a lot of them. We have I think nineteen small ones and four massive ones. Students come in with personal projects, cause a lot of what we do is personal projects for students, and our job is to make sure that they can use it easily. That means to teach them how to do it step by step when they first start, and then whenever there's an issue with any of the printers, we are there to help fix it. We teach them how to use the machine safely. We won't do it for them. They have to do it, but we're there to show them how to do it and help out. You do get students that want to use them, so this side of the room, EBS1.1 the subtractive side of the Engineering Build Space, is like a little workshop with all of the manual machines such as mills and lathes and that's where 2 of our computer numerical controlled (CNC) machines are.

What development opportunities would you like to see / take (courses, opportunities etc) that our Technician **Commitment may be** able to help with?

If we had done this like six months ago, my answer would have been my degree. But my manager has sorted it out and hopefully, I did just get any e-mail from them, I'll be starting my degree in Nottingham in September. It's a degree apprenticeship and I will study Electromechanical engineering. I will be an apprentice again for five more years, but this time I'll have my degree at the end of it whilst carrying out my role. Overall, I have received great support and there are plenty of opportunities available for technicians. Everything that I wanted to do like my HNC, my BTEC and having the chance to do my Institute of Engineering Technicians (IET), they were all given to me. And any machine I wanted to be trained in, I am trained in them. I decided one day I wanted to be first aid trained and that opportunity was also provided to me.

I've always argued that we need more women. I spent a lot of time while I was downstairs in the workshop, kicking off that I was the only woman down there and it was like every other breath I took. Well, there are only two or three technicians who are women in the school. But the students, especially the girls, have come in here and have said that they really enjoy the fact that they feel more comfortable just to come in, approach me and ask for help instead of having to go up to a man and I like that. It makes me feel empowered. I didn't have to do anything to make them feel more comfortable, I just had to be there. So inspiring more women is important. When we had Midland Group Training Services coming to my school, which was also how I found about and got the apprenticeship opportunity, there were other women there as well. And all of them stood there going about how messy it is. But I tell you it's really not a messy job. You don't have to get dirty. From my personal experience, I didn't know I wanted to be an engineer until I went and tried it. My granddad forced me to go with him to work. And doing the work experience with my granddad made me like it, it solidified it, there was no chance I was going to do anything else other than engineering. So I would encourage other women to go and give it try through work experience opportunities. Maybe the Technicians Commitment could help with that.

What skills has it helped you develop?

My people skills, I suffer from anxiety quite badly. When I first moved up here, I wouldn't say boo to a goose. But even though I was downstairs in a workshop full of blokes, they were lovely, and I was very close with them after we worked together for five years. When I moved up here to the Engineering Build Space my manager made it his goal that the anxiety was not going to cause an issue and so over the last year he spent ages trying to convince me that everything is going to be fine, and it has. I even managed to do my first public speaking event the other week. It's not just the job, it's a good job and I really enjoy it, but it's probably a lot more about the people that I work with that makes me comfortable.

Shannon Ramsay Design Technician, Warwick School of Engineering

Tell us how you got to where you are now!

I arrived at Warwick in 1997 as an undergraduate in the Department of Physics then, in 2001, I started my PhD with Professor Pam Thomas, who is currently CEO of the Faraday Institute. In about 2005, I became a Post-Doctoral Researcher in her group. As the group gained a lot of equipment through the Science City Advantage West Midlands capital investment, I started looking after the equipment whilst in that role. That caused issues, because I was meant to do focused research but I was also spending more and more time assisting other people and managing the facility in an informal way. Around this time I had applied for promotion whilst on a research contract but when I went to the promotions committee, they said "you're doing great work, everyone loves what you're doing, but we can't promote you because you haven't got enough independent research". The promotion criteria was very strict, so they were absolutely right, but they essentially told me to be more selfish. I really didn't want to do that because I enjoyed the teamwork, I enjoyed helping other users and had less interest in my own research in some ways. Luckily, in 2014 the Research Technology Platforms (RTPs) were launched and I moved on to a professional services contract as the Platform Manager for the X-ray Diffraction RTP, a step up from where I was at the time. Since then, I've managed the facility and we've grown in size, capability and staffing. This year I'm in a new phase where I've got 2 new staff members.

What does your current role entail?

I guess there are many different elements to my role but mainly it's about managing my staff and training people. Even though I'm also looking after the equipment still, due to the knowledge I've built up over my 10 - 15 years of working with kit, I'd say I've got less time to do hands-on experiments for our users. Other aspects have been added to the role, like health and safety - which has become much bigger and more important than it was 10 years ago - doing internal and external work, writing business cases for staff/equipment, as well as tendering for and getting new equipment. It's quite a specialised role, but it's incredibly varied. We have 14 machines now covering a whole range of material science ranging from solar cells to organic materials and batteries.

Tell us about the EPSRC grant you recently won!

In the summer of 2021, both Rigaku and ELDICO launched a new product - an electron diffractometer, which uses electrons to do what we normally do with X-rays in X-ray diffraction to solve crystal structures. The advantage of electrons over X-rays is they interact much more strongly with matter, and so you can look at much smaller samples. The idea is that these machines are designed to have interfaces that allow a non-expert microscopist, e.g. a crystallographer, to easily do investigations. We are focusing less on the technique and more on solving the crystal structure.

to try and get this technology at Warwick and, because of the recent work that the Technician Commitment has done, we were able to take advantage of the opportunity to be the Principle Investigator on the grant application. We put in a two-page business case for EPSRC Strategic Equipment call. Unfortunately, this was initially sent back to us because EPSRC had received two near identical bids, one from us and one from the University of Southampton. They weren't sure they had the funding to fund two machines and they wanted to know more about the national demand. Therefore, alongside the National Crystallography Service (NCS) at the University of Southampton, led by Professor Simon Coles, we had a chat and agreed to put in a joint bid focusing on the demand and community needs for the machine to help EPSRC justify funding two machines, one at each site. We also focused on the sustainability aspect of the machine, highlighting that we'd run the National Facility with 50% of the EPSRC funding and then the local part would be funded by the universities, factoring in the personnel needs to look after the machine because it's quite a labourintensive technique. In December 2021 we put in the revised joint bid, and in March 2022 we were invited to submit the full bid. By July 2022, we went to interview with very positive feedback from the reviewers, and in September we were informed that we had been successful. The grant started on the 1st January 2023, with the instrument arriving in May 2023. The instrument at Warwick is the second electron diffractometer in Europe and the first in the UK, which is really exciting!

I decided that it was a good idea

What tips would you give to others looking at securing funding?

With regards to tips, I identified a couple but the main one was regarding imposter syndrome. It was a real thing! Everyone gets a little bit of that feeling that you shouldn't be there and the entire process can make you feel it quite often. However, I'm settling into the new role as Principal Investigator and I am still learning new things. As advice, it is worth finding lots of people in the institution who have done it before, getting previous copies of proposals that have been successful and maybe some that haven't, so you can see the things that have gone well and/ or badly so you can avoid those. Leave plenty of time, people underestimate how long it takes to write these things and a rushed proposal will struggle to be well received. You need time to reflect, and you need time to work on what's good and send it to a few colleagues and get collaboration.

The biggest change from my point of view as it has allowed technicians to apply for funding where appropriate

I think in terms of colleagues, building those collaborations with people who can help you and you trust in order to get good feedback is important. You must also think beyond of why you want the equipment or the grant. Why do you need it and who's going to benefit? What will the impact be, not just from your point of view, but also from the funder's point of view? Why is it relevant to them and how will it benefit them? The funders will want to know why they should fund it. I think one of the biggest mistake is that people say why it's relevant to them, which also means that you must identify and approach the right type of funding bodies. Another element that is a key question nowadays is sustainability, how you'll maintain the equipment or the service beyond the lifetime of the grant. It comes up a lot and the guidance they provide is actually quite strong. So just following this and not really diverting too much from what they prescribe is probably a good idea.

What would you highlight to others related to our Technician **Commitment / what** would you like our **Technician Commitment** to incorporate?

I think where the Technician Commitment has really helped is in recognising the value and work of technicians by raising the visibility of the technical professionals, bringing all the technical professionals across the country as a unit. Allowing them to share best practices has

also increased collaboration. Removing those barriers has been a massive help, and that's probably the biggest change from my point of view as it has allowed them to apply for funding where appropriate - the funding councils being on board has helped massively with this.

I think getting recognition for the work they do in other ways through e.g. the Papin Prize, through important papers, making sure that people are actually acknowledged correctly has been important. These changes are shifting the culture, so that the academic staff don't necessarily look down on technical professionals, on clerical staff, or whoever it is. The number one thing for the future is obviously the promotion pathway as it will really raise the opportunities. Allowing people to have more technical input at senior level, having that technical representation along with the academic into decision making and strategy will allow us to make a massive difference. And then encouraging things like apprenticeships. Apart from that, the work that the Technician Commitment is doing is exceptional.

David Walker Platform Manager, XRD RTP

Tell us how you got to where you are now!

I started my apprenticeship with Warwick Manufacturing Group (WMG) in 2009. During secondary school instead of one of my GCSE options I had the opportunity to go to Warwickshire College Group to undertake an NVQ level 2 in engineering. This was great as this allowed me to finally get my hands dirty and learn to operate workshop equipment. Previously this is something that was not allowed at school. I learnt to use manual milling machines, manual lathes and learn how to use a variety of different hand tools. During the 2-year course, I was expected to undertake 50 days of work experience at a variety of different engineering industries. One of these was WMG. During the work experience at WMG, I was eager to discuss with the technical management team the opportunities of apprenticeships and how I could start a technical career in such an interesting and vibrant research setting. WMG had not had an apprentice in 15 years but knew of their ageing workforce. Thankfully, following my conversation an interview came to fruition, and I was extremely lucky to be offered an apprenticeship with the technical team.

During the first four years, I worked across various areas of WMG and as part of my apprenticeship, I was supported by technicians, researchers and engineers who gave me their time and experiences. I spent periods of time within research spaces focusing on joining techniques, robotics, advanced materials and manufacturing, computer aided design, as well as spending some time in the School of Engineering assisting with undergraduate

laboratories. A lot of the skill and knowledge I have learnt has been directly passed on from the technical experts around me that were willing to share their knowledge. During these extremely important early years, WMG felt like a close-knit family of technical specialists who encouraged me to develop, and I was very fortunate working with them during this time. I also had the opportunity to go to college on day release to study for my Higher National Certificate (HNC). This was amazing as it allowed me to work with others who shared the same passion, increase my network, and bolster the theoretical knowledge around tasks I was undertaking at work.

We have a selection of talented individuals who can fill our current technical skills gap.

Following the completion of my apprenticeship, I joined the team as an engineering technician, I spent most of my time supporting research and teaching through the skills I had learnt. I was programming and operating a variety of high-end CNC controlled machines producing prototype components and test pieces. As WMG ventured into additive manufacturing of metals, we quickly recognized the need for a new piece of equipment, a wire electrical discharge machine (EDM). From previously learning about the process throughout my studies, I was eager to really try and get the most out of the machine,

so we could offer an improved service to our customers, and I could improve my manufacturing competence. Following training from the manufacturer, I was required to create all the health and safety literature that was required for users to operate the machine safely. I also decided to go out to the manufacturer and speak with them about how we can maximise on its delivery, such as improving lead times by using different work holding and consumables. I have since been able to pass on this knowledge through training to our technical workforce who now operate it.

As I was now out of my apprenticeship and had served 4 years as an engineering technician, I wanted to look at what other career opportunities were available for me. WMG by this time had doubled in size and new buildings and workshops had been formed. This meant an expansion to the technical team and thus a need for the technical services management team to increase in size. I saw this as my next step. I discussed the opportunity of a secondment and was successful in my application.

During my time as a workshop manager, I was assigned to looking after several different laboratories and workshops across 5 buildings. One of the main struggles I initially found was the line management responsibility of many of my peers. I overcame this through attending management courses offered by Warwick and over time it became far easier and really rewarding as it allowed me to help them develop their careers by finding courses and training opportunities that suited their career progression. I also have helped played a vital part in the apprenticeship programme by further developing a rotational training and placement schedule which would give our apprentices the opportunity to see a wide breath of the activities WMG are undertaking. This has been successful and a great passion of mine.

What does your current role entail?

In my current role, I undertake the day-to-day management of our apprentice cohort. I ensure they are engaged in a role that aligns to the criteria set by their apprenticeship standard and ensure their knowledge skills and behaviours are demonstrated and taught, so they can complete their end point assessment to the best of their ability.

I regularly hold discussions with our stakeholders and customers across the department and to try and establish their operational needs and I look to obtain a solution. This solution is in the form our technical support. Following the success of our apprenticeship programme, I have understood the importance of increasing its size to ensure we have a selection of talented individuals who can fill our current technical skills gap.

I have an aim to develop the existing programme, so it is slicker and still producing technical staff with the level of skill required for them to assist with the wide variety of research taking place across WMG.

I have been speaking with our training providers to ensure that the subject matter within the courses they provide is suitable for the apprenticeship WMG require, and I regularly offer suggestions through advisory forums. I have also been made a council member of the Institute of Technical Skills and Strategy (ITSS) which will give

me the opportunity to negotiate and learn with other university departments to ensure that we are offering the best practice nationally. This is something I am very excited about.

Also, recently we have taken on 4 T Level students from our local college, and we will look to be taking more as the year progresses. This is great new scheme where we are providing students with a passion for engineering, an opportunity to develop their knowledge and skills in a realworld environment. Currently it is my responsibility to organise the 45-day work-based placements and arrange the areas they will visit.

What tips would you give / What have you done that has helped your development / What would you tell a younger Zac with what you know now?

I've never been one who struggles to communicate or to go and ask questions. I think that has been very beneficial to me. I have always found myself asking, what is this? How does that work? I have always shown interest in the areas of research I have visited, this in turn has solidified relationships, increased my network and allowed me to gain more knowledge. You can learn from other people's experiences and opinions. So, yeah, I'd certainly suggest to a younger self don't stop asking questions, especially since I've joined the management game. There is nothing worse than thinking you know best before asking others for advice.

What would you like to see implemented related to our Technician **Commitment or what** would you recommend people take a look at related to our Technician **Commitment?**

I would like to see increased exposure of the opportunities that are exist amongst our technical workforce and help to encourage the workforce to enrol onto these experiences. I would like to see people taken out of there comfort zone and try something new. We've had Stuart Croft sign up to the Technician Commitment and he has given each technician minimum of 2 days a year towards our own personal development, and I want to see people take this opportunity and really make the most out of it. I don't think it's until you really give things a try that you can reap the rewards. Looking at other people's profiles, and hearing their stories, I believe we can encourage people to take these chances by the horns.

Zac Parkinson Technical Apprenticeship and Development Manager, Warwick Manufacturing Group

Warwick Technician **Commitment Award for Outstanding Achievement**

TECHNICIAN COMMITMENT AWARD 2023

We are pleased to launch the **quarterly Warwick Technician Commitment Award for Outstanding Achievement.** This celebrates the fantastic work our technical staff do across research, teaching and within our infrastructure, without which Warwick would not operate.

We encourage any member of staff or student to nominate a technical member of staff for achievements big or small, or to celebrate work that is unsung but still immensely important.

Nominations can be made at any time. Four times a year we will select awardees from the nominations received. These individuals will receive a certificate and vouchers to celebrate their achievements.

Alongside this, twice a year we will welcome nominations for team awards. The expectation is that a team will have worked on a common goal to achieve success. The team will receive our Team Trophy, and will be rewarded with a congratulatory team lunch at the conference centres on campus.

We have provided eligibility, guidance and further information in the link below, but if you have any questions, please contact technicians@warwick.ac.uk.

www.warwick.ac.uk/research/technicians/tcaward/

Work will be ongoing to update the TechNet website encouraging Technicians to use this as their 'go to place' for anything relating to the Technician Community. This will include careers advice pages and links to development programmes and job opportunities.

When 'normality' returns we will aim to hold events on campus to update staff on what's happening, to gather ideas for the future and to engage with you on what the Technician Commitment means and how it can make a different to you in the future. Nothing will change without your input.

MiSea

What's next for the Technician **Commitment?**

Over the coming months we will be working on elements of the action plan, in particular around recruitment and career development. This will involve formulating ideas around how and where we recruit our technical staff, including some video showcasing of the work of our technicians and the departments that they work in. We will be looking at ways of developing our technical staff, not just through attending courses, but through work-shadowing and placements and also secondments to other roles.

> Find our action plan at Our Technician Commitment

Useful information and how to keep up to date

Ask to sign up for our newsletter and you will be sure never to miss any update on what's happening with Technicians again.

> technicians@warwick.ac.uk M www.warwick.ac.uk/research/technicians

@TechnetWarwick.ac.uk/research/technicians

Further useful information can be found at:

The Technicians Commitment www.technicians.org.uk

The Science Council www.sciencecouncil.org/employers/ technician-commitment/

Warwick's Organisational Development www.warwick.ac.uk/services/ldc/personal

The TALENT website www.mitalent.ac.uk

BBSRC

www.bbsrc.uksi.org/skills/ developing-careers/research-technicianstechnology-skills-specialists/

Meet our Technical Talent

