

North East Institute of Technology

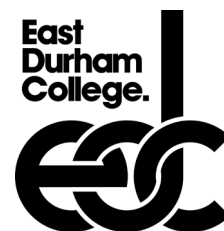
Newsletter – February 2023



NA College



East Durham College Launches New Digital Suite



An exciting new development for ICT & Computing students.



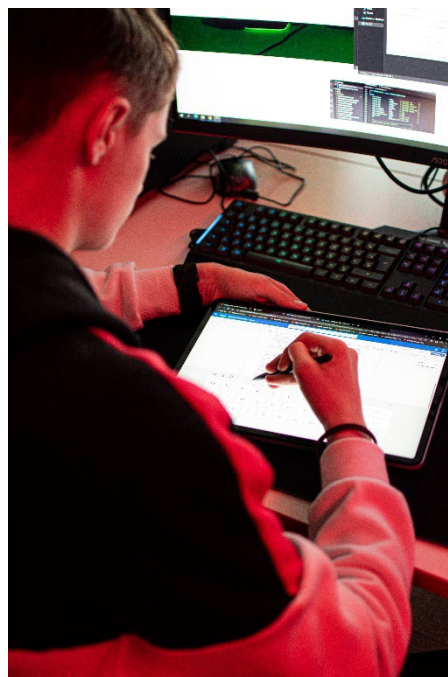
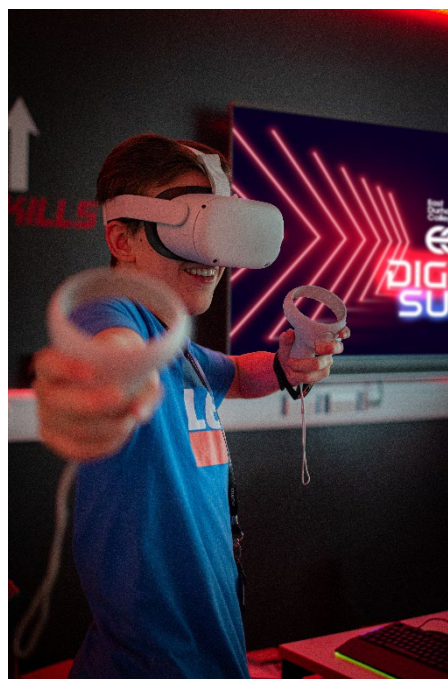
With growing demand for highly skilled digital professionals, East Durham College has invested in a new digital suite at their Peterlee campus.

The Digital Suite has been designed and equipped to provide students with access to the technology that they will be working with as future IT professionals, such as:

- Desktop workstations with Ryzen 9 5900X CPUs and RTX 3060 graphics cards, matched to 34-inch widescreen monitors facilitating multi-tasking and efficient workflow
- Blackmagic Pocket Cinema 6K cameras to record video footage of projects and college events.
- DJI Mini III Pro Drones allow students to work with exciting technology and assist with college events.
- Its own standalone network which allows students to practically learn about network installation, configuration, testing and security in a realistic but safe environment.
- Meta Quest 2 VR headsets are used to explore the potential of Virtual and Augmented Reality in a variety of scenarios and students will develop virtual products for this platform.
- 3D printers which provide scope for designing and managing printing projects for a range of end-users.
- Xbox Series X Consoles are a popular and very useful resource for critical evaluation of human computer interfaces, software front ends and gameplay mechanics.

The new suite is already in operation and is being used by EDC's student cohort studying a T Level in Digital Design & Production.

Feedback from learners has been highly positive, with many not wanting to leave the room as they enjoy the environment, design and equipment so much!



Tees Valley employers are getting the best technical training with NEIoT at Middlesbrough College

Engineering leaders are helping future employees to design their dream careers, thanks to higher technical training delivered at Middlesbrough College.

Two apprentices are progressing in their careers and are being funded through their University qualifications at Middlesbrough College's University Centre. Lewis Mount and Abi Foy are both studying the Higher National Diploma (HND) in Electrical and Electronic Engineering, which is an Institute of Technology (IoT) recognised qualification.

Middlesbrough College is a partner college in the North East Institute of Technology (NEIoT) and is the sole deliverer of any IoT courses in the Tees Valley. The prestigious IoT status ensures that the College delivers high-quality technical qualifications and bespoke training and provides routes for people of all ages and existing employees to gain industry specific skills.

22-year-old Lewis Mount completed his apprenticeship with PD Ports in September and is now working for the shipping and logistics company as a Crane Electrician. Lewis said: "I've really enjoyed studying at Middlesbrough College. I studied my Level 3 Diploma in Electrical and Electronic Engineering at the College and have progressed to study at the University Centre-

the only bonus this time is that I'm learning and earning at the same time! It's brilliant that my employer is funding me through my University qualification and the course is helping me to excel in my career.

"Studying at Middlesbrough College's University Centre has allowed me to develop and enhance my technical skills and knowledge. I work with motors as part of my role and the HND has provided me with a deeper understanding of this and I'm more confident in the workplace as a result. I would definitely recommend studying the HND programme, especially if you have ambitions of working in a senior role within the engineering sector. I'm hoping to progress in my career with PD Ports and become a Chartered Engineer."

20-year-old Abi Foy from Middlesbrough also studied the Level 3 Diploma in Electrical and Electronic Engineering at Middlesbrough College and has progressed to a higher-level apprenticeship with Sulzer. Sulzer is a global leader in fluid engineering and Abi works for the organisation as a Winder Fitter.

She said: "Studying at Middlesbrough College has opened up doors to lots of opportunities for me. I first worked at Sulzer as a work placement student when studying my Level 3 Diploma at the College and from there was offered an apprenticeship.

"I currently study the HND part-time and put the knowledge I am learning at College into practice in the workplace, which has been massively beneficial in both my learning and my career progression. The facilities at the College are fantastic and the tutors at the are also outstanding. They will go above and beyond to support you and answer any questions you have.

The exciting range of IoT courses at Middlesbrough College range from Level 3 to Level 6 and include specialisms such as electrical and electronic engineering, manufacturing engineering, building services engineering, civil engineering, construction management, business and computing.

The College's £20m STEM Centre was also recently expanded to include a dedicated higher educational environment in a technical setting. The purpose-built University Centre features a bespoke higher education study area, classrooms and tutorial zones, with easy access to the technical and specialist industry equipment and facilities required for a range of technical courses.



Lewis Mount
PD Ports



Abi Foy
Sulzer

Find out more and
apply to study in
September 2023:

[mbro.ac.uk/
institute-of-technology](https://mbro.ac.uk/institute-of-technology)

**NORTHERN
SKILLS**

M C
Middlesbrough
College Group

TTE

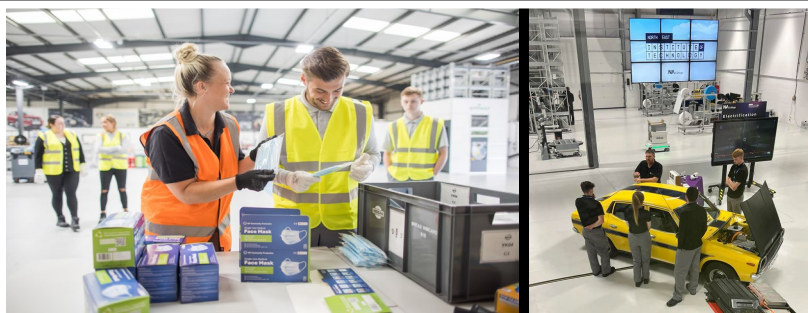
ITS TIME TO COLLABORATE!

NA College co-hosted over 40 delegates, including education providers and businesses alongside the North-East Automotive Alliance and the North-East Institute of Technology to discuss the net zero skills agenda.

As part of the event, we discussed the green skills required to support the transition to net zero and ensure that North-East firms can fully benefit from government investment made to support the electric revolution. We also heard from the leader of the National Skills Delivery for Electrification who discussed the national plan for electrification skills, which will provide a workforce with the required skills and capabilities to deliver the sectoral technology roadmaps.

"It was great to welcome business leaders, and innovative leads from across the North-East from the automotive, supply-chain, and electrification industries to NA College".

Margherita Pasquariello, Chief Strategy & Executive Officer



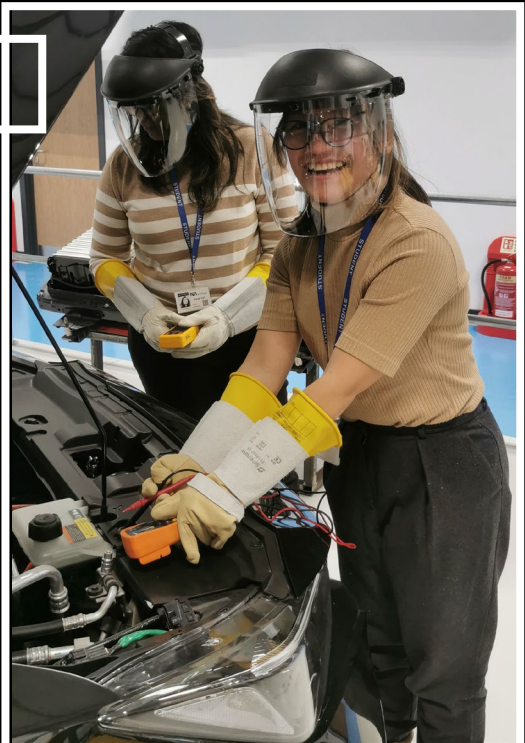
LAUNCHING THE SMART FACTORY!

Our sustainable Smart Factory which is the first learning production line shaped to create a link between Employers' skills demand and training/education.

The Smart Factory is creating the right environment to support the future development of our Green Skills provision, Business Improvement qualifications and any workplace activity for our learners. Learners benefit from a realistic and well-resourced learning environment to obtain skills in a controlled replica of a production line. Each stage of the line has multiple scenarios and tailoring to allow for independent and group thinking, resulting in learners streamlining, improving, and developing future implementations for the production line.

"It's an exciting time to be a learner. The original concept of teaching has made way for learning full of cool technology and different ways of strengthening knowledge. It's a digital revolution!"

Steve Pallas, Operations Manager



FARADAY-OUT

NA College hosted the Faraday Institute's PHD students for a short course in Electric Vehicles. The students got out of the classroom, donned their PPE and got to work understanding; the important role batteries play in the green agenda, how to isolate a battery as well as measuring volts and amps.

"The day was electric".

Mick Cromarty, Electrification Lead

NA College recently announced an MBO along with SHARD Investment.

The women led MBO has received much praise and will continue to excel the college in a positive, green direction.

- APPRENTICESHIPS •
- BOOTCAMPS •
- SHORT COURSES •
- SCHOOL ENGAGEMENT •



Year 1 Engineers at September's Bootcamp

Marc Surtees



Marc Surtees, a student from our first ever cohort of Construction T Levels, and has gained employment with Bowmer & Kirkland on a higher apprenticeship after he completed his T Level industry placement with them. Bowmer and Kirkland said “Marc is a great asset to our company and continues to work hard both at university & on site and has become an integral part of the team. Definitely a T-Level success! “

Joe Shanley



Joe Shanley, HNC Civil Engineering student, won Trainee Civil Engineer of the Year at the Civil Engineering Contractors Association (CECA) NE Awards.

Rylie Sweeney



Rylie Sweeney, Level 3 Built Environment student, has been collaborating with the Gatsby Foundation and the Careers & Enterprise Company to form part of the national panel discussing Excellence in Apprenticeships and Technical Education. She has also been filming promotional videos with the North East STEM Foundation

Staff development

Technical Construction staff have begun a programme of Digital Construction training, starting with an Introduction to Autodesk Construction Cloud. Staff found this to be extremely beneficial and relevant to the qualifications they are teaching. The remainder of the training plan for includes training software packages Navisworks, Civil 3D and Advanced Steel.

Employer engagement at NCD

NEIoT construction students have benefitted from lots of site visits and guest speaker events. These included GMI Hillthorn site visit at Sunderland, stadium tour at St James’ Park, Copterz demonstrating how drones are used in construction, Bowmer & Kirkland visited to give students an insight into different job roles, Institution of Civil Engineers joined us to discuss the benefits of professional membership to enhance career development.

Skills Bootcamps

A new Skills Bootcamp, ‘Implementation of Building Information Modelling’, is to be rolled out from January for those living or employed north of the Tyne.



T-Level investment revolutionises technical and skills training.

Newly opened state-of-the art facilities at Sunderland College's City Campus is revolutionising technical education and skills training across the North East and beyond.

Supported by the Department for Education's T Level Capital Fund (TLOF), the investment has seen the introduction of new energy, manufacturing, and energy skills, to ensure the college's T Levels and curriculum responds to the evolving needs of industry, now and in the future.

Offering some of the best training facilities in the region, standout features include a 360 Immersive Digital Training Suite designed to recreate industrial environments located anywhere in the world, as well as a new battery power training facility, a robotics and cobotics station, in addition to a hybrid automotive technical skills workshop with EV charging stations which have been shaped in partnership with the world's leading battery technology company Envision AESC.

An Eco Hub, where students and apprentices can learn about green savings and environmental sustainability in different industries through hands on activities, has also been installed alongside collaborative spaces, enhanced engineering and manufacturing workshops and a business management suite.

Warick Stephenson, Associate Principal for Technical, said: "We are committed to providing our students with innovative learning environments to help them prepare for a highly skilled career.

"The exciting developments at City Campus offer cutting-edge technology so they can gain the skills and knowledge that will be of great value to employers across a wide range of sectors."

The facilities add to the multi-million-pound redevelopment of Bede Campus, which saw the creation of an Innovation Space to offer unparalleled learning opportunities to students studying a range of creative subjects through the latest technologies including an award-winning 360-degree immersive space.

Further capital investment from the TLOF see the creation of new state-of-the-art facilities at the campus to expand the college's T Level provision into media, broadcast and TV and radio production.



sunderlandcollege.ac.uk



Department
for Education

Partnership with Northern Powergrid continues to develop



TyneMet College's partnership with energy company, Northern Powergrid continues to develop as the college welcomes new recruits in 2023.

With the UK Government Net Zero targets looming, the demand for renewable energy has faced a huge upsurge in recent years.

The NPg partnership involves the delivery of a Level 3 apprenticeship as well as HNC and Foundation Degree level study.

Level 3 craft apprentices – 100% pass rate

In September 2022, TyneMet welcomed a group of Level 3 City & Guilds Power Engineering apprentices from Northern Powergrid.

The full-time learners completed an intensive 12-week course which covers topics including basic power distribution, transmission lines, fault finding as well as maths, science and functional skills.

Following completion in December 2022, the full group of 40 apprentices completed and passed to achieve an incredible 100% pass rate. The students will then go onto do training with NPg.

In February 2023, a new group of 28 will be starting their 12-week apprenticeship journey.

Higher National Certificate in Electrical and Electronic Engineering

The part-time Higher Education course is also offered with NPg employees studying the course to progress on within the company in management and engineering roles.

As part of the HNC, learners complete modules including maths, engineering design as well as electronic circuits and devices.

With a group just completed and passed in December 2022, the college will welcome a new group of 20 HNC learners in January 2023.

Foundation Degree in Power Engineering

The college's Foundation Degree in Power Engineering (in partnership with Sunderland University) is offered exclusively to Northern Powergrid for those students with high grades or equivalent A Levels.

In line with the current climate, the college has recently developed new units within the qualification which include renewables, sustainability as well as battery technology. These units look at the effect lower carbon emissions are having on the distribution network.

Following a 2022 inspection which TyneMet College were heavily involved in, Northern Powergrid received an outstanding Ofsted rating. This demonstrates the high-quality teaching and learning offered to students from this thriving partnership.



Building Talent in Power Electronics, Machines and Drives

Newcastle University, supported by the NE IoT, is leading a new institute to support training and skills development in the field of Power Electronics, Machines and Drives (PEMD).

The Institute of Electrification and Sustainable Advanced Manufacturing' (IESAM) will be first to address industry needs by developing a flexible, high-quality PEMD training pipeline in the North East. The project brings together the North East Institute of Technology and key regional higher and further education providers and is funded by the Driving the Electric Revolution Challenge, delivered by Innovate UK for UK Research and Innovation and co-funded by Newcastle University.

The institute will create PEMD content to enrich T-level, Higher Technical Qualifications as well as Advanced and Degree Apprenticeship programmes. IESAM's curriculum development team will be closely working with its education and industry partners to ensure that current and future industrial needs are reflecting in the education offer, including Robotics, Automation and Control, and Digital Manufacturing.

IESAM will also offer a Level 6 PEMD degree apprenticeship programme, short courses to support professional development and an online toolkit for careers advisors in schools, colleges and Job Centres to inspire young people towards further and higher education and careers in PEMD.



Sharon Grant
Director of NEIoT

0191 375 4050

sharon.grant@newdur.ac.uk

Maxine Lee

Administrator (Principalship & Corporate Services)

0191 375 4336

maxine.lee@newdur.ac.uk

