

# North East Institute of Technology

Newsletter – August 2023



# £600,000 INVESTMENT IN NEW LAND-BASED EQUIPMENT AT EDC HOUGHALL

East Durham College's IoT is delighted to announce its Houghall campus will soon be taking delivery of a raft of new equipment to further develop the training opportunities on its highly successful land-based engineering apprenticeship programmes.

The College is spending over £600,000 this summer on new equipment for its Durham-based campus and central to this investment is the purchase of a New Holland CX840 Combine Harvester.

Working closely with Russells, in Northallerton, one of the largest New Holland dealers in the UK, the College has been able to secure a deal to significantly update its harvesting equipment, bringing land-based engineering apprentices and agricultural students closer to the machinery being used, and maintained, in the agricultural sector both locally and across the country.

Mike Herrington, lead land-based engineering lecturer at Houghall, said: "This machine will not only improve the equipment available to service the college's working farm, but it will also allow learners to work on exactly the type of equipment they would expect to encounter in a modern agricultural working environment.

"Our land-based engineering students will be able to carry out vital maintenance and diagnostic testing on this and other equipment to further increase their specialist knowledge and practical skills in this in-demand role."

The College is also getting a large array of other up to date machinery and kit, including grassland equipment such as a McHale grass rake and a Pottinger grass tedder, a brand new Honda TRX ATV quad, a JF850 forage harvester, a New Holland tractor for diagnostic usage, Krone mower/conditioner, 360 Excavator, a dumper, a top-of-the-range Advanced Dyno Solutions Dynometer, industry leading Jaltest diagnostic system and a Tenstar vehicle simulator.

"As the largest land-based college in the region, this new equipment will further cement the quality of our training offer and ensure we are providing the skills employers in the agricultural sector so badly need," Mike added.

The College launched land-based engineering last year and has been delighted by the take up from employers such as Lloyd Ltd, Brian Robinson Machinery, Nixons Plant Hire, EasyHire, MGL Group, Courtfield ATC and Russells; and, that the apprentices have recorded an impressive 100% pass rate.

The College's IoT has also forged close ties with the Land-based Engineering Training & Education Committee (LE-TEC) which was established by three industry bodies to increase awareness and promote land-based engineering: The Agricultural Engineers Association (AEA), the British Agricultural and Garden Machinery Association (BAGMA) and the Institution of Agricultural Engineers (IAgrE).

If you would like more details on land-based engineering at East Durham College, please contact Business Development Advisor, Hayley Clifton, at 0191 518 8294 or 07940300771 or [Hayley.Clifton@eastdurham.ac.uk](mailto:Hayley.Clifton@eastdurham.ac.uk)



**The college's newly-purchased CX840 Combine Harvester**



NORTH EAST

**I N S T I T U T E O F  
T E C H N O L O G Y**

# MIDDLESBROUGH COLLEGE'S UNIVERSITY CENTRE IS PREPARING FUTURE BUSINESS LEADERS FOR SUCCESS

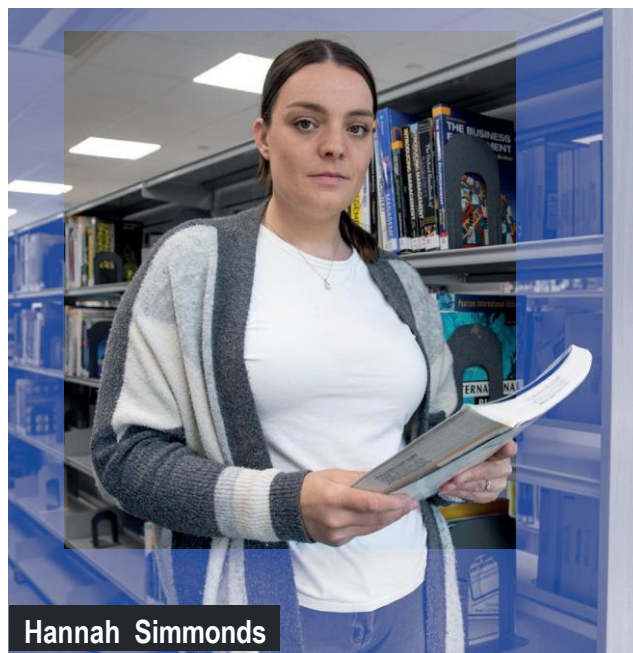
Business savvy students are investing their futures in degree qualifications at Middlesbrough College's University Centre, and the results are paying dividends!

Middlesbrough College's dedicated University Centre allows students to progress in their careers with job-focused degree qualifications that offer a practical alternative to a traditional University.

With business careers being among the most in-demand occupations in the UK and business support services roles in the North East growing 18.9% by 2028, it's no surprise that over 400 students are enrolled on a business course at Middlesbrough College.

The College's partnership with the North East Institute of Technology (NEIoT) also means that the Higher Education business programmes are IoT recognised, guaranteeing high-quality, bespoke training for students to gain the industry specific skills that they need to succeed in the sector.

One student who secured a role in industry before even completing her course is Hannah Simmonds. Full-time mum Hannah enrolled on the Fd Business Management at the College's University Centre and quickly progressed to the BA (Hons) Business Management (Top-up) to gain her full honours degree. Before her graduation, Hannah was offered a role in Human Resource Management with Penny Petroleum and is now enjoying working for the company at their Stockton-on-Tees based office.



Hannah Simmonds

Hannah said: "I enjoyed studying for my business degree at Middlesbrough College's University Centre. My tutors were amazing, and I was well supported throughout my studies.

"Studying the business degree with the College has prepared me well for my career in Human Resource Management. The modules in international business and human resources in particular have helped me in the workplace as I've been able to apply my knowledge to real working situations.

"Middlesbrough College's University Centre was an obvious choice for me as the course offered flexible, family friendly hours, 1:1 support and small class sizes. It was a bonus that it was cheaper than other Universities too!

"I'm excited to continue progressing in my career with Penny Petroleum and I can't wait to see where the future will take me!"

Find out more and apply today at [www.mbro.ac.uk](http://www.mbro.ac.uk)



Middlesbrough  
College Group



Taking **you** higher

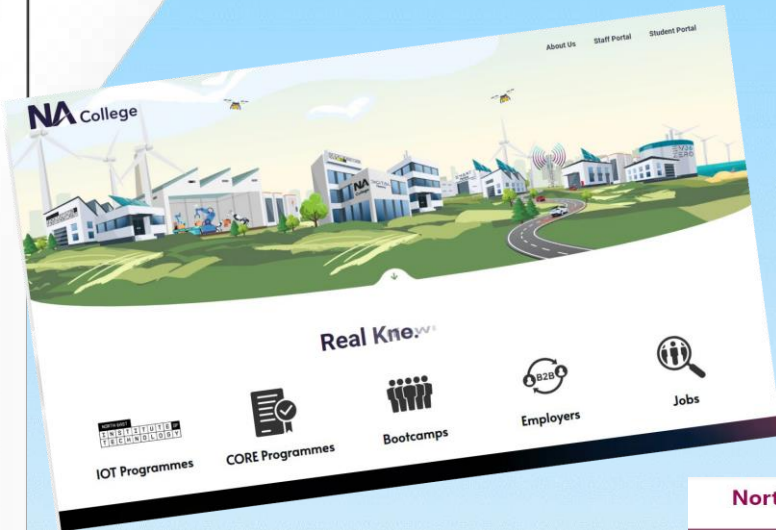
# NA College

Real Life, Real Knowledge, Real Education.

**A FRESH NEW LOOK!**

We are **EXCITED** to launch of our new website! After months of hard work and dedication, we are delighted to present a fresh online platform that aims to;

- **BETTER PROMOTE THE NEIOT**
- **STREAMLINED USER EXPERIENCE**
- **ACCURATE INFORMATION**
- **FRESH LOOK AND FEEL**
- **STRATEGIC OVERVIEW**



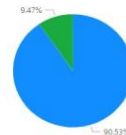
## **UPSKILLING A GENERATION!**

The results for Wave 3 Skills Bootcamps that have been delivered so far are in and we are proud to announce how successful it has been. While we are still waiting for milestone 3, the results are looking great. Welcome to all the Bootcamp team at NA College.

### North East LEP Green Skills Project - Summary



Participants by Skills Bootcamps



New Participants by Month



Total Participants

190

No. Of Participants Achieved Milestone 1

188

% Of Participants Achieved Milestone 1

98.95%

No. Of Participants Progressing Towards Milestone 2

188

No. Of Participants Achieved Milestone 2

167

% Of Participants Achieved Milestone 2

88.83%

No. Of Participants Progressing Towards Milestone 3

167

No. Of Participants Achieved Milestone 3

0

% Of Participants Achieved Milestone 3

0.00%

## **OUR RESULTS ARE IN**

As our 22/23 cohorts are coming to a close and we are thrilled to announce the exceptional performance of our Level 4 - Improvement Practitioner EPA results. With the majority of our results being distinctions, we celebrate the hard work and dedication of our team members. Their outstanding skills in driving improvement initiatives demonstrate a commitment to excellence.

**Distinction = 61% , Merit 28% = , Pass 11%**

- **APPRENTICESHIPS**
- **BOOTCAMPS**
- **SHORT COURSES**

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- Instagram: @na\_college
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- 0191 466 1188
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# New College Durham



## Discover Engineering Event

On 27<sup>th</sup> June 2023, NCD hosted our very first Discover Engineering Event, with support from employers. Forty-eight Year 7/8 female students from local secondary schools attended to find out more about engineering and manufacturing in the North East.

This sector faces significant challenges with regards to recruiting a diverse workforce in the UK and following this event we hope to have raised awareness and inspired these young female learners to consider choosing a career path in advanced manufacturing and engineering in the future.



## Motor Vehicle Apprentices are Driven to Success...

Well done to Arek Szymanski who was awarded NCD Motor Vehicle Apprentice of the Year for his outstanding dedication, exceptional skill level and remarkable achievements. Arek Szymanski said:

“This apprenticeship has prepared me to progress within the industry. The support I have received from the automotive team has been second to none. With the experience and knowledge I’ve gained during my time at NCD, I am now working alongside industry experts to carry out extensive diagnostics and repairs at a BMW specialist workshop.”

Ian Sturdy, Programme Leader, commented: “Arek has consistently demonstrated an unparalleled work ethic, going above and beyond expectations to deliver outstanding results. He evidenced an advanced knowledge and understanding of vehicle mechanics, diagnostics, and repair procedures and was awarded a distinction for his practical end point assessment. Arek has been a pleasure to teach.”



## The Stemettes Leadership Academy

South Tyneside College was delighted to participate in The Stemettes Leadership Academy which was coordinated by South Tyneside Council in partnership with the Dogger bank Community Fund.

Stemettes is an award-winning social enterprise which works with girls, young women and non-binary people aged 5 to 25 to enable them to find out more about Science, Technology, Engineering and Maths (STEM) related careers.

The event aimed to support young people in developing their leadership skills and was attended by local school groups who participated in leadership workshops and speed networking sessions as well as a keynote speech delivered by Tyne Coast's Lynsey Whitehead, Director of Business Engagement, Partnerships & Apprenticeships.



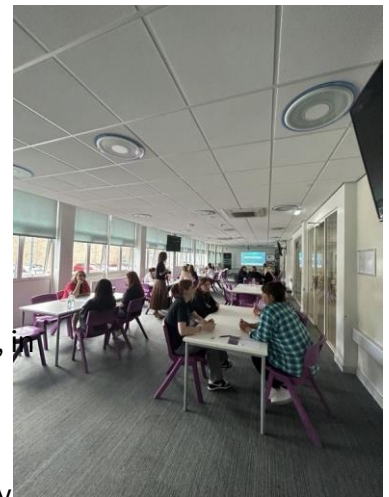
## Royal Academy of Engineering Challenge

Last month, our TyneMet College Level 3 Advanced Manufacturing and Engineering students and our South Tyneside College Level 2 Engineering students competed, alongside other college teams, the Royal Academy of Engineering challenge.

The challenge saw students being tasked with developing an idea that considered legacy and sustainability and highlighted how engineering can contribute to the economic, social and environmental sustainability of a local economy.

Teams visited a skills carousel which included soft skills, ideas development, problem definition and value added. After working on their ideas, their challenge brief - creating a design for a sustainable way to create prosthetic limbs – was presented to a panel of judges.

TyneMet Engineers narrowly missed out, with the overall win going to South Tyneside's team! All who participated thoroughly enjoyed the event with excellent feedback received from staff, students and the judges.



# IESAM



## The Institute of Electrification and Sustainable Advanced Manufacturing (IESAM) website is now live: [www.ncl.ac.uk/sage/iesam/](http://www.ncl.ac.uk/sage/iesam/)

IESAM is the first institute to **address the industry need for PEMD training** in the North East. Along with the North East Institute of Technology, local Further Education Colleges and our Industry partners, we're **bridging the skills gap**, and providing **high-quality training**, for those looking to pursue a career in electrification and sustainable advanced manufacturing.

IESAM is committed to offering:

- A **PEMD educational pipeline** from Level 3 to Level 7.
- **Continuing Professional Development (CPD)** courses.
- **Information, advice and guidance** for the industry, educators and career advisors.



IESAM Institute of Electrification and Sustainable Advanced Manufacturing

*Developing a flexible, high-quality talent pipeline for Power Electronics, Machines and Drives (PEMD) in the North East*



### What is Power Electronics, Machines and Drives?

Power Electronics, Machines and Drives (PEMD) are key enabling technologies that are used in the modern control and delivery of electrical power.

Core PEMD technology includes semiconductor devices, power converters, electrical machines, electric drives, and control systems.

PEMD is a fast moving and exciting technology sector, with the application of PEMD expanding rapidly across multiple industry sectors. This is in part down to the current *electric revolution*, where we are seeing a significant shift towards the electrification of systems. Electrification is the process of replacing or modifying systems traditionally powered by fossil fuels, with technologies that use electrical energy as a power source.

As such, PEMD technology is making a direct and significant contribution towards reducing carbon emissions and meeting worldwide Net Zero targets.

### Where is PEMD technology used?

These days, the application of PEMD technology is all around us. For example, PEMD can readily be found in the following areas:



**Transportation** - electric cars, e-bikes, public transport and construction vehicles, battery charging technology, electrification of aircraft and marine systems.



**Consumer products** - LED lighting, mobile device battery chargers, computer power supplies, refrigeration, washing machines, vacuum cleaners, hair dryers and straighteners, electric fans.



**Electricity generation and distribution** - photovoltaics, wind turbines, hydropower, building management - heating and air conditioning systems, transmission and distribution systems.



**Manufacturing** - industrial motors and generators, electric drives, robotics, industrial control systems, production line equipment.



### IESAM

Here in the North East, it is widely acknowledged that we are a home for innovation and invention. Just as the original Industrial Revolution brought industry and employment to the region, it is now anticipated that the *Electric Revolution* will resurrect economic growth and bring new industries and rewarding PEMD jobs to the North East.

Many successful businesses specialising in electrification have planned investment that will confirm the North East of England as a UK leader in electrification and advanced digital manufacturing. However, there is an urgent skills shortage and training challenge in the North East to meet these developments. It is for this reason the Newcastle University Institute of Electrification and Sustainable Advanced Manufacturing (IESAM) has been created.

In partnership with the North East Institute of Technology (NEIoT), key regional FE and HE providers, and industry stakeholders, IESAM will address industry skills needs at all technical levels by developing a flexible, high-quality Power Electronics, Machines and Drives training pipeline. IESAM's curriculum development team, working closely with its education and industry partners will ensure that current and future industrial needs are fully embedded in the education offer. IESAM will deliver:

- ✓ A coordinated PEMD educational pipeline from Level 3 to Level 7 - by creating PEMD content that enriches T-level, BTEC and Higher Technical Qualifications, as well as Advanced and Degree Apprenticeship programmes;
- ✓ Continuing Professional Development (CPD) - short courses and bespoke modules to support the upskilling and reskilling of the existing industry workforce;
- ✓ An innovative Electrification CPD programme for FE lecturers;
- ✓ Information, advice and guidance for industry - signposting PEMD training and skills opportunities at all technical levels, from beginner to expert;
- ✓ Information, Advice and Guidance (IAG) resources for Career Advisors in schools, colleges and job centres - resources to raise awareness and inspire people towards rewarding careers in the Electrification sector.



### To Find Out More

Through collaboration with all stakeholders, IESAM can build a talent pipeline in PEMD, raise the profile of career opportunities offered by PEMD, and be fully responsive to industry requirements.

To find out more about IESAM or PEMD, please contact the IESAM team via email: [iesam@newcastle.ac.uk](mailto:iesam@newcastle.ac.uk) or visit us at [www.ncl.ac.uk/iesam](http://www.ncl.ac.uk/iesam)

### About our Partner:

North East Institute of Technology <https://neiot.ac.uk/>



The NEIoT is one of the first twelve Institutes of Technology in the UK. The new Institutes of Technology are collaborations between Further Education colleges, universities and businesses. Their aim is to develop the high-level technical skills and qualifications that employers really need both now and in the future.

Institutes of Technology focus on technical subjects across a range of industries, and all the Institutes emphasise the particular skills needed in their region. The North East Institute of Technology concentrates on advanced manufacturing and engineering, construction and digital.

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