

# Al Mapping Report

Mapping Artificial Intelligence (AI) Capacities and Capabilities



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# **Yorkshire Universities**

Yorkshire Universities (YU) is a registered charity representing eleven universities and one specialist higher education institution in Yorkshire.

Members: Leeds Arts University; Leeds Conservatoire; Leeds Beckett University; Leeds Trinity University; Sheffield Hallam University; University of Bradford; University of Huddersfield; University of Hull; University of Leeds; University of Sheffield; University of York; and York St John University.

























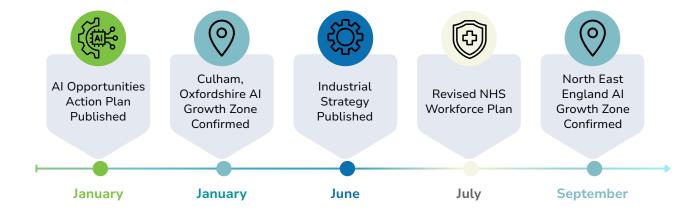
#### Introduction

Recent government policy has focused on the importance of artificial intelligence (AI) for the future of the UK's economy and society.

In January 2025, the UK Government published the <u>AI Opportunities Action Plan</u>. The Action Plan set out the government's intention to create a number of <u>AI Growth Zones</u> across the UK to boost the country's domestic compute portfolio by establishing AI data centres that will also act as innovation hubs and drive local rejuvenation, channeling investment into areas with existing energy capacity such as post-industrial towns. The UK's first AI Growth Zone was established in Culham, Oxfordshire in January 2025, followed by a second in North East England in September 2025.

The publication of the <u>Industrial Strategy</u>, in June 2025, further underlined the government's commitment to AI, which is a core component of the <u>Sector Plan for Digital and Technologies</u>. The Industrial Strategy also focuses on the importance of place, with a range of policy initiatives and funds designed to deliver economic growth in priority sectors across the UK. In addition, the new <u>NHS 10-Year Plan pledges</u> to make the NHS the "most AI-enabled care system in the world".

Yorkshire Universities (YU) has undertaken a mapping exercise to document Al capacities and capabilities of Higher Education Institutions (HEIs) across Yorkshire. The outcomes of this exercise have helped to illustrate the breadth and depth of Al capacity across the teaching, research and innovation functions of YU member institutions. The mapping also demonstrates how the collective strengths and specialisms of the region's HE sector can support policy partners in implementing Local Growth Plans by driving innovation within and across Yorkshire's high-growth sectors, clusters, businesses, entrepreneurs, and public sector organisations.



# **Background and Wider Questions**

The mapping exercise captures, at a high level, the most significant AI-related activities taking place at universities across Yorkshire. However, the mapping does not address some of the wider questions about the role that the HE sector could or should play in supporting policy makers, businesses and communities to prepare for the potential impacts of AI. These issues have been subject of recent YU-convened discussions with members and partners, and they also feature in a guest opinion piece published by YU.

The questions below are framed as suggested points of discussion, to help build on the findings of this mapping exercise, and to explore what more universities can do – individually and collectively – to ensure an equitable and sustainable AI-enabled future.

#### Al is in a phase of 'radical uncertainty'.

- How can universities be pathfinders to help the region/the country to understand the range of potential future implications of AI for society and the economy?
- How should the HE sector contribute towards helping policymakers design policies that are relevant and beneficial for technologies that are evolving rapidly?
- Should YU members consider some collective scenario planning to prepare for various possible AI outcomes and their implications on teaching and research?

The effects of AI adoption will vary across different sectors and regions.

- What role should YU play in understanding the need for AI skills across Yorkshire and the role of the HE sector in delivering these skills?
- How can YU support the region's MCAs, and their local growth plans, to consider the potential impact of AI on existing and future local workforces?

All is transforming higher education through its contribution to production of essays, papers and theses.

 What messages do YU members want to amplify about how the HE sector is adapting to an AI-enabled future, while ensuring fairness and high standards of education and academic rigour are maintained?

## **Approach**

Universities are at the forefront of the development of AI technologies, the delivery of AI skills and the adoption of AI-enabled tools. YU members are acting as pathfinders in the utilisation of extremely fast-moving technologies that are already disrupting business models and supply chains across multiple sectors. Given the dynamic nature of AI technology development, and the continually evolving range of HE initiatives on offer in this space, this mapping exercise should be regarded as a snapshot of the most significant current AI-related initiatives taking place at HEIs across the region. It should not be considered as a complete and static audit of all AI-related activities at YU member institutions.

To provide consistency in the mapping exercise, YU member institutions were asked to provide information on their AI capabilities based on three categories: teaching, research and innovation.



To provide a more comprehensive view, each institution was also asked to consider not only their current capabilities, but also their planned and aspirational capabilities. All YU members were invited, via the <u>YU Regional Development Group</u> (RDG), to submit a response to this mapping exercise. However, there was no expectation that the smaller arts institutions in YU would input to this exercise, given the specialist nature of the teaching and research provision at these institutions.

The YU mapping exercise builds on a recent mapping of the AI capabilities of the N8 Research Partnership universities across the north of England. To avoid duplication, the N8 kindly agreed to share the responses they had received from N8 member institutions that are also members of YU (i.e. the universities of Leeds, Sheffield and York), so there was no requirement for these organisations to provide a separate response to YU.

# **Executive Summary**

The mapping exercise reveals that YU member institutions collectively have significant breadth and depth of capability in AI across their education, research, and innovation functions. There is evidence that YU members are collaborating with partners from the HE sector, public sector, and industry, to utilise their AI capabilities to respond to local, national, and international opportunities and challenges. In addition, the mapping reveals how Yorkshire's HE sector is at the forefront of delivering research and skills required for the application of AI to transform areas such as healthcare, cybersecurity, and manufacturing.

The cross-disciplinary nature of this technology is highlighted throughout the membership's extensive application of AI across a variety of sectors. Multiple members are currently exploring how to leverage their expertise to support the development of regional AI Growth Zones. YU members are also actively engaged with teaching, research, and innovation initiatives to ensure that AI developments are ethical and environmentally sustainable.

#### **Education and Skills**

With a wide range of provision of specialist AI-focused courses at undergraduate and postgraduate levels, alongside ongoing integration of evolving AI capabilities into curricula across all disciplines, YU members are training a talent pipeline of 'AI native' graduates, equipped with the skills that will be needed by employers in the region and beyond. YU members also provide training and skills support to SMEs and public sector partners to enable safe and effective adoption of AI technologies.

#### Research

YU members boast research strengths in the application of AI across a wide range of sectors and challenges including healthcare, the built environment, manufacturing, space, transport, environmental sustainability, cybersecurity and sport. YU members host a range of specialist research centres, facilities and infrastructure to support the development of advanced AI technologies and applications. A key theme of research in the region is the ethics and environmental sustainability of AI to enable the development of resource-efficient AI technologies that interact with humans in an ethical, fair, and trustworthy manner.

#### Innovation

YU members are engaged in collaborations with partners from the HE sector, public sector and industry to support the development of innovative, AI-based products and services to drive economic growth. The mapping reveals a broad range of HE engagement with partners, including SMEs, large companies, Catapult centres and public bodies, such as the NHS and law enforcement agencies. Innovation activities support local and regional supply chains and clusters, as well as delivering national and international impacts through partnerships beyond the region.

In their responses to this mapping exercise, YU members indicated that they intend to continue to invest in the further development of their AI capability, demonstrating that AI is seen as a key priority for the HE sector.

Future developments in regional AI capacity include increased provision of specialist AI degree courses and the integration of AI into taught programmes across the curriculum. There are plans to augment and develop new modular courses and skills accelerators for SMEs and other external partners. Future research priorities include the development of responsible and sustainable AI, and further exploration of the potential of AI to transform areas such as manufacturing, healthcare, cybersecurity and environmental sustainability. YU members are planning new partnerships and further investment in specialist computing equipment and facilities to drive innovation and AI adoption.



# **Leeds Beckett University (LBU)**



LBU delivers an on-campus undergraduate course in AI and additional courses in related technologies. Programmes are supported by extra-curricular activities, such as a student-led computing community, and various resources designed to improve AI literacy. Investigating teaching and assessment methods will be core to the implementation of AI at LBU, as they prioritise understanding the ethics of AI implementation and possible widening inequalities among the student population. By collaborating with various organisations, in the UK and internationally, LBU is designing AI-integrated tools to support research into health, healthcare and wellbeing, and the built environment. This work is supported by academics from the University's School of Built Environment, Engineering and Computing, and its dedicated Intelligent Computing Research Cluster. LBU has capacity to conduct meaningful partnership work, which has strengthened the development of AI technologies that prioritise improving the health of communities regionally, nationally and internationally.



# **Teaching**

LBU offers a specialised undergraduate degree in Data Science & Artificial Intelligence and teaches AI concepts as part of its undergraduate Computer Science programme, both of which are currently taught on campus. Students also have the opportunity to become a member of the Computing and Engineering Students' Community via the Leeds Beckett Student Union, as an extra-curricular activity. LBU has, and continues to, implement generative AI within teaching and assessments in several courses and the University is sharing its experiences of AI implementation with others. LBU also has a series of defined principles for the use of Generative AI and has provided workshops to improve AI literacy, which are publicly available.

An information site has been constructed for staff and structured discussions have been implemented across the University which seek to inform an overarching policy for generative AI in Teaching and Learning. The University has piloted the use of Microsoft Copilot and has engaged with a third-party supplier to support and build staff awareness and capacity. In addition, academics in the <a href="Leeds Beckett Business School">Leeds Beckett Business School</a> have undertaken a survey to gauge AI readiness and ambition. A university-wide review of assessment practices is underway to better embrace the opportunities of generative AI. LBU hosted a symposium on generative AI in July 2025.

LBU has plans for generative AI to underpin the University's Education Plan. This includes the delivery of online modules, the development of specialist courses and the embedding of generative AI across a diverse range of programmes.

LBU aspires to create a shared understanding with students as to the effective and ethical usage of generative AI. As part of this, LBU will lead in inspecting how inequalities might be widening the digital divide and impacting the student experience. Importantly, LBU will engage with professional, statutory, and regulatory bodies to develop a shared professional practice approach to generative AI.



#### Research

LBU has collaborated with business to implement AI tools, primarily in the areas of sports, health and wellbeing, and buildings. Through the <u>Carnegie School of Sport</u>, the University has invested in AI-driven markers motion capture systems (Theia3D) for use in healthcare projects. International collaborations with technology manufacturer <u>OPED GmbH</u> have propelled advancements in how AI technologies can be used to assess medical problems. Together with the University of Leeds, researchers have developed a causal inference/ AI tool to interrogate how complex systems, such as obesity, operate under different constraints.

Academics at the <u>School of Built Environment, Engineering and Computing</u> are leading collaborations at LBU with multiple organisations from the UK. These include the <u>Leeds NIHR Biomedical Research Centre</u>, the <u>South West Yorkshire Partnership NHS Trust</u> and <u>BuildEco Ltd</u>. The Leeds Sustainability Institute, renowned for its research on retrofitting and sustainable buildings, apply AI tools to building performance, including recent projects to detect propensity for mould. By collaborating with partners in the UK and internationally, LBU has boosted, and continues to boost, the visibility of its research strengths in AI – particularly when applied to the healthcare sector and the wellbeing of communities.



## Innovation

The University set up a cross-university working group to provide resources, guidance and training on AI in research and innovation. It will also be actively exploring potential for collaborating on AI supported projects with businesses at the sports tech incubator at Carnegie School of Sport. There are currently five Knowledge Transfer Partnerships (KTPs) that use AI tools to improve productivity, reduce safety hazards, and optimise supply chain management. In 2025, LBU will be a partner in a Horizon Europe project that will set up a network and provide training for researchers on large language model (LLM) driven neuro-symbolic AI systems. LBU plans to use its AI capabilities to continue growing its impact and align research strengths to support healthy, sustainable, and inclusive communities.

# **Leeds Trinity University (LTU)**



LTU offers both undergraduate and flexible Masters programmes rooted in producing graduates with employable skills and industry experience. A cross-disciplinary team with strong academic and industrial backgrounds integrate practice-based learning in the delivering of LTU's programmes. The University's Computer Science Department hosts a Human-Robotic lab that supports experimentation with AI technologies with applications in healthcare, education, and manufacturing. LTU has a particular strength in exploring the pedagogical use of Generative AI technologies and intends to position itself as a key partner in regional AI Growth Zones by contributing expertise in health tech, smart cities, green computing, and digital inclusion. LTU's infrastructure and facilities enable collaboration with industry. By integrating innovation into the student experience, industry partners can supervise dissertations and capstone projects which provide them with low-risk innovation pilots. The University has capacity to produce innovative AI research projects and has been recognised for its work in improving staff recruitment processes using AI.



# **Teaching**

LTU offers an undergraduate programme in <u>Computer Science with Artificial Intelligence</u> and a flexible Masters programme in <u>Data Science and Artificial Intelligence</u>, which is backed by Office for Student (OfS) funding and an OfS scholarship designed to train students in key AI and data technologies. This programme is delivered by a cross-institutional and cross-disciplinary team with strong academic and industrial backgrounds. Practice-based learning is also employed in the course to emphasise experiential learning through live case studies and industry-linked assignments. The University is focussed on aligning industry expertise and active-research profiles with teaching methods. These curriculum developments will support current programme delivery and planned portfolio expansion, including in emerging areas such as AI, cyber security, and data science.

LTU has also co-hosted the <u>International Conference on Electronic Technology</u> and Computer Science (ICETIS), in collaboration with Dalian Jiatong University in China. This event involved lecturers in the university's Computer Science Department presenting their research on enhancing diamond valuation through artificial intelligence and machine learning and a tool called the 'Globalizer App' designed to internationalise curriculums and form partnerships between higher education institutions.

LTU plans to develop its leadership in AI, data science, cybersecurity and software development with ethics, sustainability and accessibility embedded throughout. The University intends to expand its course portfolio, including further specialist Masters programmes in AI and AI-related technologies, degree apprenticeships, and microcredentials that respond to emerging market needs.

To uphold the university's ability to produce employable graduates, LTU will strive to have strong industry links and experience available as part of these emerging programmes.



#### Research

The Computer Science Department hosts a Human-Robotic lab that supports cutting-edge research into human-robot interaction and collaborative robotics. This facility enables real-time experimentation with Al-driven control systems, vision-based navigation, and assistive technologies, with applications in healthcare, education, and manufacturing. The University has ongoing research exploring <u>pedagogical use of Generative Al technologies</u> in teaching, learning, and assessment. The work focuses on ethical deployment, Al literacy, academic integrity, and inclusive education. This is particularly relevant to policy and curriculum innovation, aligning with sector-wide priorities for responsible Al integration. Support is also available to early-career researchers, and improved research mentorship structures are being developed to ensure a sustainable pipeline of research outputs.

LTU plans to establish research clusters focused on Responsible AI, Human-Centred Computing and AI in Education with growing outputs and external funding success. In addition, the University intends to position itself as a key partner in regional AI Growth Zones, contributing expertise to health tech, smart cities, green computing, and digital inclusion. Collaboration with other universities could result in the offer of joint PhD programmes, alongside in-house PhD programmes.



#### Innovation

LTU's infrastructure and facilities have enabled innovative research to be conducted on AI and AI-related technologies. This includes the Human-Robotic Lab and the continuing professional development (CPD) training hub. Collaboration with industry partners is fuelled by student-led data science and AI course projects which have industry supervised dissertation and capstone projects providing low-risk innovation pilots for partners. The University has also won the inaugural <a href="UHR Award">UHR Award</a> for its innovative use of artificial intelligence to improve staff recruitment processes. LTU will expand it CPD training hub by launching the "AI Skills Escalator" with short courses for SMEs and the public sector and pilot industry-specific training and hackathons. The University plans to boost industry research collaboration that is focused on responsible AI by engaging in regional initiatives, expanding the city centre campus, and establishing partnerships in support of data centre growth and clean power.

# **Leeds Arts University (LAU)**



LAU is careful in its positioning to welcome and embed technical innovation and development across its activities whilst continuing to champion the learning of craft, making and production skills which underlie the development of creative judgement. The use of AI as part of creative production brings questions around authenticity, originality, ownership and true creative innovation.



# **Teaching**

Student engagement with AI begins during their induction period as part of welcome talks. These introduce the ways AI will form part of the student experience. This is followed by access to LAU's online guidance which outlines how AI can inform teaching, learning and creative practice. This guidance is subject to ongoing review and update.

Developmental use of AI is widespread in preparation for teaching. Efficiencies and improvements are being established in varied ways including gathering resources, preparing presentation drafts, summarising documents for dissemination, developing suggestions for seminar subjects and devising student activities. Staff have also piloted using AI to record and summarise the content of tutorials as a contribution to providing more considered, effective and comprehensive feedback.

Creative disciplines at undergraduate and postgraduate level are integrating the use of AI as part of their production processes to reflect emerging trends in creative industries. For example, in marketing and games design students use generative AI to produce draft visuals in order to demonstrate proof of concept as part of the development pipeline. LAU continues to invest in supporting these and other AI developments through increased computing and digital infrastructure resources including as part of planned portfolio development in creative technology.

Use of AI is actively encouraged as part of ongoing staff scholarly activity. This has been supported by two annual University-wide teaching and learning conferences that have considered AI both in terms of developments in the creative industries and as part of inclusive teaching and learning practice. LAU is working through targeted academic development sessions to further raise staff familiarity in the use of AI in a creative context and its associated skills such as prompt engineering and the use of varied platforms. The aim is that AI applications become a part of regular teaching practice and that teaching properly contextualises the position of generative AI in the creative process.





# Research and Innovation

LAU has collaborated with industry partners to deploy large language models for analysing creative graduate job postings, identifying trends in creative skill demands. This use of AI not only informed curriculum development but also supports sector-wide insights through shared data. Additionally, partnerships with employers have been fostered through AI-focused workshops and industry talks to student groups, where the future of AI in creative sectors is an increasingly recurring theme. LAU is also piloting new AI functionality in software designed to support students in determining and progressing their career plans. Research staff are considering the potential for 'meta-research' around generative AI in the context of ethics, integrity and copyright.

#### **Leeds Conservatoire**



Leeds Conservatoire recognises the transformative potential of artificial intelligence while maintaining a strong commitment to creativity, ethics, and academic integrity. The Conservatoire's approach is guided by internal working and strategy groups, ensuring alignment with sector-wide priorities and regional strategies. Leeds Conservatoire is actively identifying opportunities where AI can enhance operational efficiency and enrich the creative process, rather than diminish it.



## **Teaching**

The Conservatoire is adapting the curriculum, assessment and co-curricular provision to embed AI literacy, preparing students for professional and personal landscapes where AI is pervasive. This includes equipping graduates with critical understanding of AI's capabilities and limitations, alongside fostering resilience in creative practice. Academic integrity remains a cornerstone of the Conservatoire's response; therefore, ethical AI usage is integrated into student learning and staff development, ensuring transparency and fairness.





# Research and Innovation

Leeds Conservatoire acknowledges the threats generative AI poses to the creative industries, particularly in music creation and production, and will advocate for creators by engaging in national and regional conversations on intellectual property and ethical standards.

Through these measures, Leeds Conservatoire aims to contribute to Yorkshire Universities' collective ambition for an equitable and sustainable AI-enabled future, while safeguarding the distinctiveness of artistic education.

#### Sheffield Hallam University

# **Sheffield Hallam University (SHU)**

SHU delivers a broad range of flexible undergraduate and Masters programmes on AI across multiple subject areas, with academics specialising in AI supporting the delivery of its courses. SHU has strength in research and innovation on the use of AI in security and policing, supported by national and international partnerships taking place at the Centre of Excellence in Terrorism, Resilience, Intelligence and Organised Crime Research (CENTRIC). The University also has research and innovation expertise in applying AI to autonomous systems, robotics, data analytics, computational neuroscience, business, manufacturing, healthcare and sports, with a strong focus on Ethical and non-biased AI. The University has worked on collaborative innovative AI initiatives across multiple sectors and has capacity to co-produce AI systems and technologies with leading industry partners and SMEs.



# **Teaching**

SHU offers undergraduate and Masters programmes, both on campus and online, that teach the use of AI across multiple subject areas and specialities including Computer Science, Robotics, Engineering, Sports and Data Science. A specialist Master's programme in Artificial Intelligence is also available, with an optional integrated year in industry. Students have access to specialist AI researchers, equipment, software and laboratories during their studies. In addition, the university provides extracurricular opportunities for all students to engage with AI and computing by becoming members of the Artificial Intelligence Society and Computer Science Society.



## Research

SHU employs several academics that possess specialist AI expertise. CENTRIC has an extensive number of national and international projects on AI, particularly focused in the security and policing domain. This includes research conducted in collaboration with 51 partners on the <u>Starlight project</u> to design and deploy AI for law enforcement agencies. Further research conducted with business at CENTRIC has led to the development of the <u>AIPAS</u>, the <u>AP4AI</u> and the <u>AIOLIA project</u>.

The University is conducting AI research projects across healthcare to support the integration of AI for monitoring, diagnosis, treatment and qualitative analysis to tackle health inequalities. Research strengths can also be observed in the areas of security, autonomous systems, robotics, data analytics, computational neuroscience, and sports and wellbeing. A broader focus on the ethical use of AI in different application areas is also a priority. SHU's research spans AI ethics, digital law, surveillance, hate speech, and public health data—highlighting the importance of inclusive, transparent, and responsible AI development.

SHU is also exploring the use of AI in digital transformation, entrepreneurship, and economic resilience. The focus on refugee entrepreneurship and SME strategies in turbulent environments illustrates AI's role in empowering communities and addressing global challenges.

SHU plans to continue expanding the capabilities of CENTRIC to provide advanced processing to support efficiency gains and optimisation in data acquisition and analytics. The University also aims to promote inclusion, collaboration and learning through emerging robotics technologies and intelligent systems which includes creating bias-aware embodied AI systems that can operate in multicultural environments to interact with humans in an ethical, fair, and trustworthy manner.



#### Innovation

SHU has worked on multiple collaborative innovative AI initiatives across the public and private sectors. Projects on image processing, healthcare, and Industry 4.0 are focused on solving complex industrial challenges, such as developing intelligent control systems for the food and drink sector and AI-driven tools for analysing heritage buildings and archival materials. Collaborations with companies like Rakusen's and QSS Ltd. exemplify SHU's commitment to applied, industry-facing innovation. SHU has also worked in the; in healthcare and wellbeing sectors, to create gamified equipment to promote physical activity in the elderly and is currently delivering projects on the use of AI in cybersecurity in IoT and autonomous systems, ensuring privacy and performance in environments with constrained resources. This includes advancements in smart IoT security, blockchain technologies, and secure networks that underpin critical systems.

# **University of Bradford (UoB)**



UoB has a strong foundation in AI-related teaching at both undergraduate and postgraduate levels, supported by tangible infrastructure, established curricula, and strategic partnerships. Research groups work on AI and cross-disciplinary research areas including healthtech, robotics, manufacturing, cybersecurity, heritage, space and sustainability. UoB works internationally as a member of the World Technology Universities Network and it has signed a memorandum of understanding, which will boost international visibility of the University's research in AI for responsible and sustainable futures. The University has the capacity to work with industry through the Bradford Digitisation Hub scheme, which is designed to support innovation within SMEs. In addition, collaborative AI projects undertaken with external partners have resulted in the development of initiatives like <u>SAFI</u> and the production of digital visualisations tools to create digital twins of local heritage sites.



# **Teaching**

UoB provides an array of undergraduate and Masters courses, taught both on campus and online, that specialise in AI. Undergraduate courses delivered on campus include Applied AI and Computer Science for AI programmes, which offer industry experience integration. Masters degree programmes include AI and Machine Learning and Applied AI and Data Analytics. A range of AI modules are offered across the UoB's programmes that teach technical, ethical and sustainable aspects of AI. A selection of industry-integrated modules is delivered via the <u>Statistical Analysis For Industry</u> (SAFI) initiative. The University supports extracurricular AI learning through student societies and hackathons. UoB has a wealth of experience delivering a combination of in-person, online and hybrid teaching modes. There are currently cloud-based resources available to reduce on-campus dependency and an ongoing exploration of Horizon platforms to support remote delivery.

Computer science, cyber security and advanced manufacturing labs are available on campus, providing students who are specialising in AI with relevant computing equipment. Specialised equipment required for those working in robotics and computer visualisation is available in the Electronics, Renduchintala Space AI, Architecture and Archaeology & Forensics Visualising Heritage labs. UoB has also hosted the AI Forum for three consecutive years, starting in 2022. UoB intends to build a Holistic Responsible and Sustainable AI for Human and Environment infrastructure lab in collaboration with schools and research centres interested in digital technologies. There is also an intention to increase AI content in undergraduate applied courses and encourage interdisciplinary teaching of AI via the MSc Group Project and MSc Dissertation Project modules. The Computer Science and Artificial Intelligence (CS&AI) team will seek to establish themselves as leaders of learning, teaching and research across both the University and the City of Bradford, with specific attention to

fundamental and applied responsible & sustainable AI. It is also the intention of UoB to expand course provision to deliver AI centric degree programmes at all levels. With the collaborative efforts of the West Yorkshire Combined Authority, Chamber of Commerce, City of Bradford MDC, local SMEs and institutions, UoB intends to provide new Masters, MRes and MPhil programmes in AI Engineering. UoB also intends to deliver new MRes and MPhil programmes in Quantum Computing with the potential for integrated collaboration with local, national and international organisations, similar to a KTP.



## Research

UoB has numerous research groups with particular strengths in AI and cross-disciplinary research areas including healthtech, robotics, manufacturing, cybersecurity, space and sustainability. Notably, the AI and Visual Computing Research Unit is actively collaborating with academic, industrial and clinical partners. This unit has a dedicated Artificial Intelligence Research group and accelerates business collaboration via four knowledge transfer arms: the <u>Centre for Visual Computing</u>, the <u>Automotive Research Centre</u>, The Computing Enterprise Centre and the <u>Digital Health Enterprise Zone</u>.

Boosting international visibility of research in fundamental AI for responsible and sustainable futures is a priority at the University. To do so, UoB has signed a memorandum of understanding with Majan University College; collaborated in international networks as a member of the World Technology Universities Network; and is partnering with departments and universities as part of the Turing University Network. There is also a focus on increasing the number of undergraduate and postgraduate producing research projects on AI. UoB will continue to engage with students, industry and government to strengthen research infrastructure. There will also be a focus on working with partners across Europe on building holistic digital twins for smart cities and working with international partners to deliver equality, diversity and inclusion (EDI) focused AI for disadvantaged communities.



## Innovation

The University also engages with small and medium-sized enterprises (SMEs) through the Bradford Digitisation Hub scheme. Working collaboratively with data is central to the University's engagement with external groups, like the City of Bradford Metropolitan District Council's Department of Place, and Bradford City of Culture 2025. Furthermore, the University has produced digital visualisation tools alongside partners to create digital twins of heritage sites like Saltaire in Bradford. Plans are being developed to construct an innovative AI Business and Industry Hub in collaboration with local and national partners from across government and industry. UoB has established a spin-out with Newcastle University, Sapien View Ltd, based on UoB's invention of AI image analysis for transplant organ quality assessment. The University will also look to transition from data-centred to human and society-centred solutions in responsible and sustainable AI, to meet the needs of industry 5.0.

# **University of Huddersfield (UoHudds)**



UoHudds has dedicated undergraduate and postgraduate AI courses, with flexible and accessible learning options for its Master's programmes, delivered by AI-specialist academics. These courses are supported by optional workshops available to students across the University which, develop AI-literacy among students. With three research centres dedicated to undertaking AI research projects, UoHudds is in a strong position to deliver research projects that are having a real-world impact in healthcare, transportation, manufacturing and security. The University has been awarded Innovate UK grant-funding to work on multiple projects that focus on developing AI applications in renewable energy and railway safety and works with industry partners to develop innovative AI research projects and applications. A mutual aspiration to generate engineering and AI-driven solutions that deliver real-world, industrial impact underpins the new <u>Applied Artificial Intelligence Innovation Centre</u> which has been set up in partnership with TWI Ltd.



## **Teaching**

UoHudds provides a variety of undergraduate and Masters courses, taught both on campus and online, which specialise in training students on AI. Undergraduate courses delivered on campus include Computer Science and Computer Science with AI. Masters degree programmes delivered on campus include Artificial Intelligence, Computer Science and Informatics and the Applied Artificial Intelligence programmes. UoHudds offers flexibility in its teaching methods by providing a distance learning option for the Applied Artificial Intelligence and Artificial Intelligence MSc programmes.

UoHudds has numerous <u>AI-specialised academics</u> working across the computer science and engineering department. Academics work in interdisciplinary teams in collaboration with the <u>Centre for Autonomous and Intelligent Systems</u> (CAIS). The <u>Centre for Cyber Security</u> (CSS) offers cross-disciplinary teaching by providing AI-related security modules across the curriculum. In addition, workshops are delivered to equip students with necessary skills to engage with AI and ultimately develop AI literacy. Teaching is also informed by research taking place across the university's research institutes and centres. These include: the CAIS, focused on AI-driven solutions across various fields, including healthcare, transportation, and manufacturing; the CSS, which collaborates with AI researchers to address security challenges, defence and resilience, and digital forensics; and the <u>Centre for Visual and Immersive Computing</u> (CVIC), which works to develop various autonomous systems.

UoHudds has plans to establish an AI Education Hub to position the University as a leading institution for AI education. This hub will aim to seamlessly integrate AI across disciplines, including non-STEM disciplines like law, social sciences and the creative industries. It will also focus on strengthening modules on AI ethics and governance to

align with national policy. Further empathises will be placed on skills, with an expansion of AI-focused apprenticeships to support workforce development in key sectors and an increase in the delivery of professional develop programmes for businesses and public sector organisations.



## Research

UoHudds has research strengths that are valuable for business collaboration. The University has a particular strength in producing research on AI in the healthcare sector. In one example, the University secured a £140,000 grant for producing an AI solution to diagnose ADHD in adults. In another, the University's academics looked at using AI for disease diagnosis and prognosis. Academics have also looked at the connection between AI and SMEs and their role as technology innovation intermediaries in a sustainable business ecosystem.

UoHudds has boosted research visibility through building AI-ready facilities like the Applied Artificial Intelligence Innovation Centre (AAIIC), which focuses on autonomous systems, machine learning, cybersecurity, and Al-driven decision-making. Research has also been amplified by securing Innovate UK grants for AI-driven projects including for urban planning and transport projects. Looking ahead, the CAIS will maintain its focus on AI-driven solutions for three key sectors: healthcare, transportation and manufacturing. To support this work, UoHudds is planning to develop an AI Research & Innovation Hub with a dedicated AI research facility to support interdisciplinary collaboration. The University intends to secure future AI research grants to lead national AI initiatives breakthroughs in cybersecurity, healthcare and transportation. To do so, UoHudds will work closely with partners like Simplifai and expand global Al research partnerships with leading institutions and industry. This includes strengthening collaborations with Yorkshire Universities, Kirklees Council and industry leaders to drive AI adoption. It will aim to strengthen business incubation programmes through the 3M Buckley Innovation Centre and increase AI-related patents, spin-outs and licensing agreements to drive economic impact.



## Innovation

The CAIS, CSS and AAIIC are leading centres for innovation at the university, equipping researchers and partners with knowledge from specialist teams of academics and high-performance computing resources, including GPU clusters and immersive AI environments. The university has expanded its collaboration with the AI firm Digital Transit Limited, through two new Innovate UK grant-funded research projects. These projects focus on AI applications in renewable energy and railway safety. UoHudds will continue to work with industry partners to develop breakthrough uses for AI and digital technologies. A further aspiration is to generate engineering and AI-driven solutions that deliver real-world, industrial impact underpins the new Applied Artificial Intelligence Innovation Centre, which has been set up in partnership with TWI Ltd.

# **University of Hull (UoHull)**



UoHull delivers an extensive range of courses to equip students with deep technical and collaborative AI skills. These include Master's programmes and postgraduate research opportunities, in addition to domain specific conversion courses to support non-technical professionals to apply AI within their fields. Teaching is supported by the University's academics and infrastructure, including the Centre for Excellence for Data Science, Artificial Intelligence and Modelling (DAIM), and the Hull Immersive Visualisation Suite (HIVE). Academics specialising in AI, including those in the Responsible Artificial Intelligence and the Dependable Intelligent Systems research groups, are working alongside industry partners to undertake numerous research projects in smart systems, environmental sustainability and logistics. The University is committed to addressing real industry challenges with AI as a partner of the National Edge AI Hub and is actively exploring its role in AI Growth Zones. The University has strengths in the applications of AI in both healthcare and environmental sustainability. By taking a human-centred approach, the University aims to utilise this technology to create a fairer and more just society for all.



## **Teaching**

UoHull has an extensive range of undergraduate and Masters courses, specialising in AI and AI-related technologies. Undergraduate programmes couple AI with robotics, business, computer science, software engineering, maths and data science. Similarly, the University offers a <u>diverse range of Masters programmes</u>, both on campus and online, that support professionals to integrate AI alongside topics such as engineering, data analysis, healthcare, business and sustainability. UoHull also offers a variety of AI-specific postgraduate research and <u>continuing professional development</u> opportunities.

The University's <u>Centre of Excellence for Data Science</u>, <u>Artificial Intelligence and Modelling</u> (DAIM) is designed to respond to the challenge of artificial intelligence and data science. Educating the next generation data scientists and artificial intelligence practitioners is central to the purpose of DAIM, alongside conducting research in these fields. A dedicated teaching and research space is available for students undertaking AI and AI-related programmes. Students also have access to professors who specialise in AI and who are actively conducting AI research projects. Additional facilities include the, Hull Immersive Visualisation Suite (HIVE), Turing Lab, Superlab and Robotics Lab, providing access to specialist equipment like the <u>Viper High Performance Computer</u>.

UoHull's <u>Executive Education Team</u> also delivers a comprehensive series of short courses for both individuals and employers addressing introductory through to advanced AI skills and has the capacity to develop bespoke programmes for specific sector and business needs. UoHull is currently working on additional undergraduate and postgraduate programmes, aligned with the rapid evolution of the field.

A second higher performance computer, acting as an advanced version of the HPC, is due to be made available in 2026. The University plans to extend its existing comprehensive education and training provision to further support regional developments, including AI Growth Zones, and national demand.



# Research

UoHull has a dedicated Responsible Artificial Intelligence (RAI) research group, that prioritises taking a human centred approach to the application of AI, observing ethics, legality and safety. In addition, a dedicated Dependable Intelligent Systems (DIS) research group focuses on leveraging AI to assess and ensure the safety and security of autonomous systems. Both the RAI and the DIS are partners in the EPSRC funded National Edge AI Hub. The Energy and Environmental Institute focuses on the application of AI in various areas including climate change, the offshore wind sector and risk and resilience. Researchers based at the institute are actively working with industrial partners on digital twins. The Logistics Institute observes the application of AI in logistics and supply chain management and works in partnership with National Rail. The University has also engaged heavily with AI activity across the region, through multiple KTPs, centred on the application of machine learning and AI to support the Net Zero agenda, adult social care and accelerate business pipelines.

UoHull provides specialist modules in data science and AI for the benefit of bioeconomic research and innovation as part of its role in the <u>Yorkshire Bioscience Doctoral Partnership</u>. Collaborative research and development activity has been conducted with the university in autonomous systems and aerospace, transport logistics and data. Through engagement with industry and external organisations, including other HEIs, the University has established itself as a leading partner in developing and delivering AI solutions to meet local and national challenges. UoHull plans to lead research into responsible and dependable AI and data science for a more just and sustainable world. To do so, greater activity is planned to continue in the areas of renewable energies, sustainable production and health.



## Innovation

In addition to research infrastructure, the University of Hull hosts the <u>AURA Innovation Centre</u>. The centre is purpose-built for business-focused innovation and provides dedicated space for businesses to work with, and alongside, academics and researchers in developing and delivering innovations that focus on local economic priorities. Additional assets include the Wolfson Advanced Imaging Centre (WAIC) which has enabled new capabilities in advanced computational analysis. UoHull plans to expand its capabilities by launching the Centre for Translational Wounds Research in 2025, to support additional research and commercial service models. Innovation and investments in AI Growth Zones, focused on the region's key industrial sectors, are under development with regional partners.

# **University of Leeds (UoL)**



UoL offers multiple undergraduate and Masters programmes in AI and AI-related technologies, alongside a distinct teaching offer that positions AI as central to traditional science degree programmes. UoL aims to accelerate the deep knowledge of computing, robotics and engineering graduates by providing access to academics specialising in Al. In addition, a number of modules across different Schools and Faculties cover the relevant use of AI. The University has a significant portfolio of AI research in healthcare, environmental sustainability and data analytics. Many of these projects are conducted through the Leeds Institute for Data Analytics, which hosts the Leeds Analytic Secure Environment for Research, to produce software and guidance that has been deployed both nationally and internationally. The University collaborates with industry to create innovative applications for AI that are tackling real world challenges across multiple sectors, including healthcare. LIDA has a dedicated AI programme, which works to coordinate interdisciplinary AI research across all faculties of UoL. Mandatory Generative AI Essentials training will be rolled out to all staff and all students from September 2025, with a suite of optional follow up training and development available across all areas of the University's work.



# Teaching

UoL offers both undergraduate and Masters programmes in AI and AI-related technologies. Undergraduate courses that integrate AI include Computer Science, Robotics, Engineering and new undergraduate programmes in both Physics and Chemistry with AI will launch in 2026. A <u>specialist Masters programme in artificial intelligence</u> is available via online teaching, alongside an artificial intelligence PGCert. Another specialist interdisciplinary <u>Masters programme on Responsible AI</u> is being formed by the Leeds Institute for Societal Futures. The University has dedicated staff who are supporting the integration of AI into programmes and are actively supporting graduates to use AI responsibly and to address real-world problems. This work extends beyond STEM into creative industries, business and social sciences with the application of relevant AI.

Students have access to high quality facilities and equipment in addition to research-informed teaching conducted by academics at <u>Leeds Institute for Data Analytics</u> (LIDA), which is host to the <u>Leeds Analytic Secure Environment for Research</u> (LASER). Further training is available at LIDA, including continuing professional development courses in data science and the institute hosts numerous <u>events dedicated to artificial intelligence</u>. The University continues to promote AI as a tool to tackle global challenges and to instil this within students to produce AI-ready graduates. LIDA also hosts the <u>Centre for Doctoral Training in AI for Medical Diagnosis and Care</u> and the award-winning <u>Data Scientist Development Programme</u> which trains graduates for careers in AI via real-world problem solving with external partners in the private, public or charitable sectors.



#### Research

UoL has a portfolio of AI research projects in healthcare and the urban environment that are currently supported by LASER. The University has international expertise in the robust development and deployment of predictive analytics. This includes FIND-AF (Future Innovation in Novel Detection of Atrial Fibrillation), an algorithm developed at UoL using machine learning that searches GP records for prevention detection; DynAIRx, a National Institute for Health and Care Research (NIHR) funded project using Al to help target structured medication reviews; and the development of international standard tools to measure frailty in the elderly population, a NIHR-funded project which is now recommended by the National Institute for Health and Care Excellence guidelines. The University has also worked on urban analytics and smart cities by obtaining two large grants to support the Healthy and Sustainable Places Data Service (HASP) and INFUZE research projects. Further projects on urban analytics and digital twins have been conducted in collaboration with the Alan Turing Institute, of which LIDA is a partner. LIDA also hosts the EPSRC MAVIS (Making Visualization Scalable for Explainable AI) project, which works to improve way humans interact with the large/complex data in explainable AI. The University's Libraries have recently hosted the international Knowledge Futures Symposium, opening debates on impact of AI on knowledge generation, Arts & Humanities, and the future of democratic societies.

The University is currently in the process of a large-scale investment in Research IT, which will inevitably take an AI focus. There is further investment planned in AI tools and capability development including the deployment of nebulaOne. The UoL will continue to reinforce its ethos as a specialist in the application of AI to solve real world programmes. Similarly, LIDA will continue to run the AI workstream, to support more staff to incorporate AI into their cross-disciplinary research projects.



# Innovation

Academics at the Institute of Process Research and Development (IPRD) have collaborated with UK pharmaceutical manufacturers to develop sustainable and cost-effective multistage processes, which have been deployed by several companies, including AstraZeneca, GSK, Dr. Reddy's Laboratories and the Defence Science and Technology Laboratory. Additional initiatives have led to the creation of innovative Alsupported technologies designed to aid the NHS with medical diagnosis. The University is collaborating with industry and external groups, to produce innovative ways to utilise AI technologies to improve the healthcare sector. UoL also partners with Imperial College London on the AI Super Connector Scheme which supports teams of early career researchers to develop the commercial potential of their innovations across a wide range of AI sectors, from security to health, climate change, robotics and autonomous systems. Within Nexus, the UoL's business community, AI businesses are among the most active and fastest growing. The community includes startups, scale-ups, and spinouts leveraging AI for health tech, smart cities, and advanced materials.

# The University of Sheffield (UoS)



UoS delivers AI modules across its curriculum to support AI-related programmes like Computer Science and Data Science, alongside providing a specialised Artificial Intelligence Master's programme. At UoS, students have access to research-informed teaching, with academics actively working with industry leaders to deliver cutting-edge AI technologies and their applications. Skills training and guidance is also provided to support AI-literacy among the university's student body. The Centre for Machine Intelligence is the University's strategic investment in key aspects of AI. The University's AI Research Engineering team is embedded in a portfolio of innovative research projects working to develop and apply new AI approaches, with particular strengths in engineering, manufacturing, healthcare, robotics and autonomous systems. The University works in partnership with various UK higher education institutions, local authorities and industry partners to produce innovative initiatives with place-based priorities using a human-centric approach. Importantly, there is a focus on developing the infrastructure required to conduct AI research and produce AI-powered solutions to research challenges.



## **Teaching**

UoS provides an array of undergraduate and Masters courses, that specialise in teaching AI. Undergraduate courses delivered on campus include Computer Science and Data Science, which offer an integrated optional industry experience year. Masters degree programmes include Artificial Intelligence, Autonomous and Intelligent Systems and Data Science. Numerous taught modules contain elements of AI or Data Science. The University also offers <a href="mailto:skills-training-and-guidance">skills-training-and-guidance</a> for students on the use of Generative AI.

UoS is developing an emerging education strategy framework for AI, that will involve a coordinated approach to programme creation and actively monitor the education market over the longer term to facilitate the timely introduction of programmes with AI content in all faculties. This will include further embedding technical knowledge of applying AI tools into research-informed teaching practices across all fields.



#### Research

UoS has particular strengths in research relating to AI for engineering, manufacturing, healthcare, robotics and autonomous systems. The University is working with YU members, other UK higher education institutes, local authorities, and industry partners, to deliver various research projects and support the implementation of accessible AI-driven manufacturing systems.

UoS has expertise in advancing AI in engineering and manufacturing to enable efficient and robust manufacturing processes and ground-breaking design and production of novel chemicals and materials. Example programmes include the recently announced EPSRC Future Manufacturing Hub Co-AIMS (Collaborative AI for Manufacturing Sustainability) and Royce Discovery Centre.

In the healthcare sector, further advancements have been driven by the university through the collaborative development of the <u>South Yorkshire Digital Health Hub</u> and the application of AI in detection technologies. A human-centric approach is core to UoS' AI-research, with a desire to understand the ethical and social implications of AI and ensuring that they are designed, deployed and used both safely and responsibly.

The Centre for Machine Intelligence (CMI) is the University's strategic investment in key aspects of AI. The CMI is home to the AI Research Engineering (AIRE) team, which is embedded in a number of innovative research projects working to develop and apply new AI approaches. Research teams at UoS have access to the Research Software Engineering and Data Analytics services, Data Connect services and training options. Currently, the University is collaborating with other N8 universities in a proposal to build and run a large-scale AI platform for research in areas that require enhanced data security. Through the establishment of the CMI, UoS aims to pull together its diverse activities in AI into a coherent set, supported by strategic partnerships with tech companies and the local and national governments.



# Innovation

UoS has co-founded, with the University of Manchester and the University of Leeds, the Northern Gritstone venture capital fund, which has a particular priority for AI-related spinouts. UoS is working closely with industry partners and technology providers in evaluating future AI workloads. For example, the University is working in collaboration with strategic partner Siemens on creating Digital Twins, based on smart building data feeds. It is simultaneously contributing to the development of <a href="https://doi.org/10.1001/jheart-10.1001/j

The University's School of Computer Science is actively engaged in <u>multiple research</u> <u>centres and institutes</u> that support research and innovation activities, including the Centre for Assistive Technology and Connected Healthcare (CATCH), Centre for Speech and Language Technology (CSLT), Insigneo Institute and Sheffield Institute for Translational Neuroscience (SITraN). For example, at the CSLT, academics from the School of Computer Science and the Silicon Valley based company, <u>VoiceBase</u>, work together to lead on AI-powered speech analytics.

# **University of York (UoY)**



UoY has an extensive course portfolio, offering AI integration across undergraduate and Masters programmes, alongside providing a specialised AI Masters programme. These programmes are delivered by academics with expertise in AI who are members of the University's Artificial Intelligence Research Group. Publicly available lectures and events are also available, alongside continuing professional development courses to support AI-literacy. With a dedicated AI Research Group and specialised institutes, including The Institute for Safe Autonomy, the University leads on AI research projects that are creating solutions to real-world problems and take in to account legal, ethical and societal considerations. UoY has particular strengths in safety and security, autonomous systems, robotics, healthcare and transport. UoY has collaborated with industry partners to develop AI-systems and has supported spin-out companies to implement AI in their businesses. The University has also invested in the city of York's infrastructure and has contributed to the proposal of an Innovation Zone that would be based in the city and foster homegrown innovation-led growth in the region.



# **Teaching**

UoY provides undergraduate and Masters programmes that offer AI integration, with a specialist <u>Artificial Intelligence</u> Masters programme taught on campus. Many of the academics delivering these programmes are members of the University's <u>Artificial Intelligence Research Group</u> and possess expertise in AI, enabling them to deliver research-informed teaching. The University also delivers <u>Continuing Professional Development</u> programmes on Generative AI in Engineering and Manufacturing, Safety-Critical Systems Engineering and Robotics and Autonomous Systems Safety to meet industry needs.

The University has hosted numerous free events on AI to support AI-literacy among students, staff and the public, including the <u>AI SuperConnector Programme Showcase</u>, placing a spotlight on York researchers and entrepreneurs within the field of AI; <u>AI awareness series</u>, aimed at giving students an AI toolkit; and <u>AI and the Future of Work</u>, a panel discussion delivered at York Festival of Ideas.

UoY plans to integrate teaching on Large Language Models (LLMs) and expand its portfolio by adding new Master's programme in Safe AI, in addition to an online-only variant of its Artificial Intelligence Masters preprogramme. New CPD courses in Safe AI covering safety engineering, alongside legal, ethical and societal considerations, are being prepared.



#### Research

UoY prioritises research in Safe Autonomy and Al and has over 100 researchers working on this topic at the <u>Institute for Safe Autonomy</u>. The primary aim of this research is to develop safety-critical applications and regulatory frameworks for Al systems. The University is also a part of the Al SuperConnector, a partnership programme formed between four higher education institutes (HEIs) that supports early career researchers who are working on AI solutions. Several interdisciplinary AI research projects have been conducted with industry. These include a KTP with software company MooD International to apply AI in the workplace. A KTP funded by Innovate UK is also being undertaken with Advai, to accelerate the safe adoption of Al across multiple industry sectors. Projects focusing on the application of AI in transport, logistics, healthcare, robotics, autonomous systems, data and gaming have also been carried out. The University is also exploring the ethical, environmental and societal implications of conducting AI centred research. The Intelligent Systems and Robotics group has introduced an approach to neural network design based on AI that aims to build electronic neuromorphic devices with an artificial intelligence system mirroring the adaptability and responsiveness of biological neural systems. Advanced AI methods are a focus in our Challenging Environments theme for communications and underwater detection.

UoY plans to develop hardware and algorithms with greater reliability that are designed to meet real-world demands. Examples include automated robotic systems to aid with reaction screening in Chemistry at UoY. Work will also be conducted in designing transparent AI that have understandable models with explainable decision-making processes to improve safety and privacy. The University aspires to be an international authority on Frontier AI, particularly in the context of trustworthy software and systems. In addition, it aims to better understand how LLMs can be used in a sustainable way.



#### Innovation

UoY has supported spin-out companies, <u>like ClearSky Medical Diagnostics Ltd</u>, integrate AI into its products and services. The University has also created novel ultralow energy devices to support the sustainable use of AI and will continue its work in creating innovative hardware to lower the energy consumption required for AI systems. Additional research will be conducted in the application of AI for health and social care, maritime, rail and automotive and energy. The University has also invested in York's infrastructure and has contributed to the proposal of an Innovation Zone that would be based in the city and foster homegrown innovation led growth in the region.

# York St John University (YSJ)

YSJ delivers AI modules across its curriculum to support AI-integration into undergraduate and master's level programmes, including those in computing and healthcare. Teaching is supported by AI-specialist academic staff and additional training and guidance on AI is available to all students and staff members. The University's Research and Innovation Group aims to encourage research activities between specialists in the fields of AI, generative AI, machine learning, internet of things, cybersecurity and data science to produce research projects that utilise AI. This group is also responsible for fuelling collaboration with industry and other higher education institutions. YSJ is currently exploring participation in AI Growth Zones and is actively investing in AI and machine learning to support its impact across healthcare, sustainability, business and law. The University's Centre for Applied Innovations fosters innovation and supports cutting-edge research, making it well positioned to advance technological and societal progress.



## **Teaching**

YSJ delivers AI-modules across undergraduate and master's level programmes in Computer Science and Data Science. The University also offers a unique integration of AI in its <u>Diagnostic Radiography</u> undergraduate programme to equip healthcare professionals with skills in AI. Students on these programmes are supported by three AI-specialist academic staff. The University has a growing 'community of practice' sharing good practice in the use of AI in teaching and learning activities across subject areas. Training and guidance on AI are available to all YSJ students and staff members. A pilot AI career coach is also underway, designed to support students' planning in response to psychometric testing.

YSJ plans to hire additional AI researchers and academic staff in line with expanding course offerings, which will include an undergraduate programme in Artificial Intelligence and a master's programme in Applied Artificial Intelligence by 2026. The University also intends to support teaching infrastructure by creating a generative AI learning journey to help inform curriculum design. Additional online and distance learning options such as AI Bootcamps and AI-Powered Learning Assistance are currently being considered.



#### Research

The University's <u>Paragon Research and Innovation Group</u> brings together specialists in the fields of AI, generative AI, machine learning, internet of things, cybersecurity and data science to produce research projects that utilise AI. This group is also responsible for fuelling collaboration with industry and other higher education institutions.

Collaborations are also taking place with SMEs for AI -related project funding applications. Currently YSJ is building investing in AI and machine learning to support innovation and impact across healthcare, sustainability, business and law.

At the YSJ London campus, research in applied AI, machine learning, cyber security and agentic systems is taking place via student dissertations and research projects. The University has also submitted external grant submissions to Innovate UK, British Council and other funding organisations for AI activities. YSJ plans to become a regional research hub in applied AI that will facilitate multiple industry research collaborations in AI and will participate in national and international AI research networks. The University also aims to expand its capacity to support AI startups.



#### Innovation

The University has established a generative AI interest group and is currently investing in AI and machine learning to support innovation and impact across healthcare, sustainability, business and law. It is also providing support for innovative student-led AI projects. The University's <u>Centre for Applied Innovations</u> fosters innovation and supports cutting-edge research, making it well positioned to advance both technological and societal progress. YSJ plans to develop its proposal for an AI Innovation Lab and is currently exploring participation in AI Growth Zone Bids. The University also intends to offer greater support for SMEs, including workshops on AI adoption.