NEXT Frontier: NEXTDC's AI in Education Series

Universities Supercharge AI Research *with NVIDIA H200*

Igniting a Global Race for Innovation

NEXTDC
where AI lives™

Accelerating discovery: The NVIDIA H200 and the transformation of university research

The world of academia is experiencing an electrifying transformation, driven by an urgent need for unprecedented computing power. Universities across the globe are no longer just observing, they are actively deploying NVIDIA's cutting-edge H200 Tensor Core GPUs, building out next-generation AI Factories, SuperPODs, and sovereign cloud platforms that can handle the most demanding AI workloads.

This isn't just about accelerating calculations. It's about powering foundational model training, enabling federated learning across institutions, and deploying real-time inference at scale. These capabilities are no longer experimental they are essential for pioneering breakthroughs that will redefine science, medicine, climate action, and even the way education itself is delivered.

And this is only the beginning. While the H200 is currently the most powerful GPU available for academic deployment, NVIDIA's roadmap already includes the B200, built on the next-generation Blackwell architecture. Universities investing in H200-powered infrastructure today are not only accelerating current research, but they're also laying the digital foundation to seamlessly adopt future-generation platforms like the B200.

Universities powering the **AI revolution**

This pivotal shift isn't a future promise; it's a present reality. Forward-thinking institutions worldwide are already integrating the H200 into their research ecosystems.

Global pioneers

In the United States, **Oregon State University** stands out, strategically weaving the NVIDIA DGX H200 into its computational backbone.[1]

Similarly, **Georgia Tech's AI Makerspace** is buzzing with activity, powered by significant clusters of H200-HGX servers, creating fertile ground for groundbreaking AI development.[2]

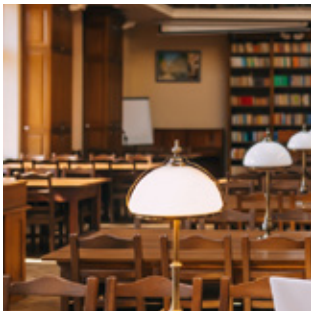
In Asia, **National Yang Ming Chiao Tung University (NYCU) in Taiwan** has launched an AI High-Performance Computing Platform including NVIDIA DGX H200 servers, a first for a Taiwanese university.[3]

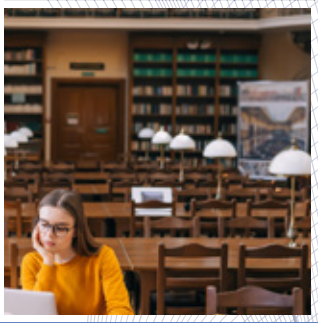
The **University of Tokyo in Japan** is leveraging NVIDIA Grace Hopper Superchips (GH200) for energy-efficient seismic research.[4]

Seoul National University in South Korea, through collaboration with Exabits, is gaining access to a network integrated with 4,000 NVIDIA H200 GPUs.[5]

Looking to Europe, **Eindhoven University of Technology (TU/e) in the Netherlands** is set to be an early adopter of NVIDIA DGX B200 systems, demonstrating a commitment to next-generation AI infrastructure.[6]

Furthermore, national initiatives like **Taiwan's NCHC** are deploying large-scale NVIDIA HGX H200 systems, making significant GPU resources accessible to academic researchers across the nation.[7]





Australia's innovation leader - La Trobe University

Closer to home, La Trobe University has emerged as the nation's pioneer, becoming the first Australian institution to deploy NVIDIA DGX H200 systems and establish the world-first Australian Centre for Artificial Intelligence in Medical Innovation (ACAMI).

ACAMI is set to become the globe's first university centre dedicated specifically to leveraging AI for developing immunotherapies, cancer vaccines, advanced med-tech, and transformative healthcare solutions.

These investments are not just powering research, they're driving new patents, industry partnerships, and national competitiveness. From climate simulation to cancer vaccine pipelines, these universities are translating AI power into societal good and economic return.

As Vice-Chancellor Professor Theo Farrell aptly puts it, this move is absolutely central to La Trobe's vision of leadership in AI education and research, with their Responsible AI Adoption Strategy guiding every facet of university operations.

La Trobe joins a growing international cohort of universities establishing AI-focused research precincts, from Princeton's open generative AI initiative to Denmark's national AI supercomputer (Gefion) – each turning infrastructure into innovation pipelines.

These institutions are setting the pace. The question now is: will others follow, or fall behind?

Redefining the campus: how H200 AI infrastructure transforms every discipline

The transformative reach of H200-powered research extends far beyond the traditional realms of computer science. Imagine the unprecedented possibilities unlocked across diverse disciplines:

Accelerating high-resolution climate modelling to predict and mitigate environmental shifts with unprecedented accuracy, unveiling complex interdependencies previously unobservable.

Driving rapid advancements in genomics and personalised medical research, enabling the analysis of vast biological datasets to unlock breakthrough treatments and diagnostic tools.

Fueling revolutionary engineering simulations that optimise designs and material science, from aerospace to sustainable infrastructure, by modelling intricate physical phenomena at scale.

Pioneering critical work in law and digital ethics, grappling with the profound societal implications of AI and shaping frameworks for responsible governance in a rapidly evolving digital landscape.

Empowering critical efforts in Indigenous language preservation and revitalisation through advanced linguistic analysis, AI-driven voice synthesis, and digital reconstruction.

Developing sophisticated AI-driven adaptive education systems that personalize learning pathways for students, transforming pedagogy and student engagement across disciplines.

Conducting complex economic and business simulations that enable more precise forecasting, dynamic market behaviour modelling, and agile real-time decision support.

Advancing policy informatics and civic AI, driving more responsive, data-informed public services and fostering improved community outcomes.

This remarkable breadth of application underscores the H200's role not just as a powerful research tool – but as a transformative force across every pillar of the university mission: discovery, education, innovation, and impact.

The national imperative: positioning Australia in the Global AI Race

La Trobe University's pioneering deployment isn't merely an institutional triumph; it strategically solidifies Australian academia's position on the global AI map. This crucial step contributes directly to building Australia's sovereign AI capabilities – a national imperative driven by the escalating demand for trusted, secure, and high-performance digital infrastructure. Complementing this, private sector leaders like Sharon AI and ResetData are rapidly expanding sovereign H200-powered superclusters. These state-of-the-art platforms are now strategically accessible to universities through cloud services or direct partnerships, fostering a dynamic and interconnected national research ecosystem.

For academic institutions, this burgeoning ecosystem offers far more than just compute power. It unlocks avenues to greater research impact, cultivates cross-sector collaboration, and enhances eligibility for major government-backed AI grants. Universities that move early to embrace this infrastructure will not only gain unparalleled access to cutting-edge compute but will also play a pivotal role in shaping Australia's leadership in the global AI landscape.

NEXTDC's indispensable role: the foundation for AI Innovation

Enabling this entire shift, both for universities and industry, is **NEXTDC**. As an ASX 100-listed technology leader and Asia's innovative Data Centre-as-a-Service provider, NEXTDC is building the very foundation of Australia's AI future. Their facilities are not merely data centres; they are purpose-built, NVIDIA DGX-Certified, Tier IV environments designed for extreme-density GPU deployments and cutting-edge liquid cooling.

In a tangible example of this support, NEXTDC proudly hosts **Sharon AI's H200 supercluster in Melbourne**, providing the secure, high-uptime, and high-performance environment essential for such a powerful deployment. Furthermore, NEXTDC's **AXON interconnect fabric** offers seamless, low-latency connectivity, vital for orchestrating large, distributed AI workloads that span multiple institutions or research groups.

The cost of inaction: why delay is not an option in the AI race

The global race for AI leadership is accelerating at an unprecedented pace. For university leaders, Chancellors, Vice-Chancellors, CDOs, CTOs, and Deans the message is unambiguous: **hesitation equals irreversible disadvantage**. Institutions that delay investment in cutting-edge AI infrastructure risk swiftly falling behind in critical areas:

Diminished grant success

The most strategic research grants, particularly those focused on large-scale, data-intensive AI projects, increasingly demand access to, and proficiency with, state-of-the-art AI computing infrastructure.

Declining research rankings

Publication impact and global standing are directly tied to the ability to conduct pioneering, high-throughput, and data-intensive research that pushes the boundaries of AI.

Loss in AI education and talent

Students today expect hands-on experience with the very tools defining their future industries. Universities unable to provide this cutting-edge exposure will find themselves losing top student talent to more equipped institutions.

Missed faculty recruitment opportunities

The world's top AI talent - both domestic and international - will naturally gravitate toward institutions that provide the advanced compute infrastructure to match their ambition and research needs.

Stalling innovation and commercialisation pipelines

Without robust, advanced GPU infrastructure, universities significantly limit their capacity to spin out AI-driven start-ups, license high-impact intellectual property, and generate critical economic returns from their research.

Global peers are already aggressively deploying H100 and H200 infrastructure, actively building innovation hubs and sovereign AI programmes. The gap is widening and it won't wait.

This is your moment to lead.
To set the national precedent.
To define your institution's legacy in AI-powered discovery.

The universities that act now won't just keep pace; they'll define the future.

What this means for **your institution**

For Chancellors and Vice-Chancellors

Strategically position your institution as a national AI leader, attracting significant grants, forging transformative partnerships, and commanding global academic attention.

For Deans and Faculty Leaders

Empower your departments to drive interdisciplinary innovation and launch high-impact, AI-integrated programmes without being held back by infrastructure constraints.

For Research Professors and AI Researchers

Imagine the freedom to train multi-trillion parameter Large Language Models (LLMs), accelerate complex simulations, publish faster, and meet critical funding milestones without compromise.

For CDOs and CTOs

Lay the digital foundation for the next decade. Build scalable, energy-efficient, and AI-optimised environments that adapt to the accelerating demands of research.

NVIDIA H200 isn't just a GPU. It's your new competitive edge in the global academic arena.

This isn't just about tech – it's about unlocking discoveries that improve lives, strengthen economies, and position your university as a force for good in an AI-driven world.

The infrastructure is ready.
The future is waiting. Lead it.

Build your university's **AI future** with NEXTDC

NEXTDC is more than a data centre provider, we are your strategic partner in building sovereign, scalable, and sustainable AI infrastructure, designed to accelerate every stage of academic discovery.

With planned expansions across Asia, NEXTDC is evolving into a regional AI infrastructure leader – offering universities millisecond access to key research and commercial hubs across the Asia-Pacific, enabling seamless international collaboration and next-gen model deployment.

Why partner with NEXTDC?

Enterprise-grade AI environments

Purpose-built to support high-density NVIDIA H100/H200 GPU workloads with certified DGX-ready design, liquid cooling, and extreme power density.

Sustainability leadership

Energy-efficient operations and advanced cooling architectures that align with your university's ESG and cost-efficiency goals.

Sovereign and secure research capability

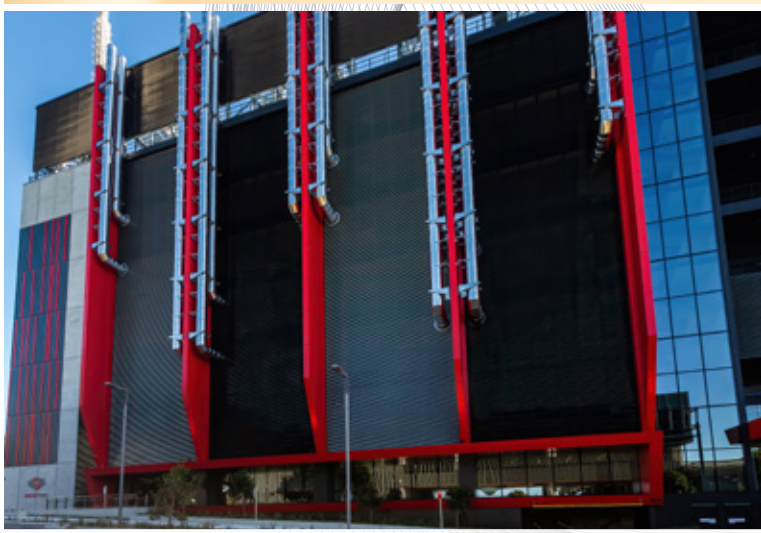
Ensure your AI data and intellectual property remain protected within Australia's jurisdiction, backed by compliance with the highest national standards.

Global AI routing and interconnection

NEXTDC facilities are located near every major international subsea cable landing station and across every Australian capital city – enabling ultra-low-latency routes for federated learning, edge AI, and multi-region training.

Unmatched ecosystem access

Gain the largest selection of Cloud, GPU-as-a-Service, and NeoCloud onramps in Australia, providing immediate access to hybrid and burst AI workloads without infrastructure delays.



Ready to turn strategy into impact?

Join the leading institutions shaping Australia's AI research future. Partner with NEXTDC to unlock H200-grade infrastructure, backed by a national network of DGX-certified, future-ready data centres. Our expert academic engagement team is ready to help your university accelerate discovery, attract top talent, and lead confidently in the age of AI.

Download our AI Ready Checklist →

Speak with a NEXTDC specialist →

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2 "Georgia Tech AI Makerspace," College of Engineering, Georgia Institute of Technology, accessed May 29, 2025, https://coe.gatech.edu/academics/ai-for-engineering/ai-makerspace.

3 "Taiwan university launches AI computing center," Taiwan News, August 6, 2024, https://taiwannews.com.tw/news/5915958.

4 "Spotlight: University of Tokyo Uses NVIDIA Grace Hopper for Groundbreaking Energy-Efficient Seismic Research," NVIDIA Developer Blog, accessed May 29, 2025, https://developer.nvidia.com/blog/spotlight-university-of-tokyo-uses-nvidia-grace-hopper-for-groundbreaking-energy-efficient-seismic-research/.

5 "Exabits Integrates 4,000 NVIDIA H200 GPUs for Faster, Safer AI," Business Wire, January 2, 2025, https://www.businesswire.com/news/home/20250102548121/en/Exabits-Integrates-4000-NVIDIA-H200-GPUs-for-Faster-Safer-AI.

6 "Schleifenbauer PDU's for NVIDIA DGX B200 bij TU/e," Schleifenbauer, accessed May 29, 2025, https://www.schleifenbauer.eu/en/cases/case-study-mdcsai/.

7 "NVIDIA-Powered Supercomputer to Enable Quantum Leap for Taiwan Research," NVIDIA Blog, accessed May 29, 2025, https://blogs.nvidia.com/blog/taiwan-research-supercomputer/.

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