

Bringing Advanced AI Computing to All Corners of Academia



Company

Universidad del Bío-Bío (UBB), Chile

Use Case

AI Research and Education

Deployment

NVIDIA DGX™ System

AMAX Services

- Data Center Planning
- System Deployment
- Validation & Testing

Performance

Accelerates AI and simulation workloads across multiple research fields

Background

AI is becoming a critical area of study and research for universities around the world. As the demand for expertise in AI grows, higher education institutions are working to provide students and researchers with the tools needed to stay competitive and succeed in this fast-changing field.

To help students and researchers at Universidad del Bío-Bío in Chile prepare for their future careers, AMAX deployed the university's first NVIDIA DGX™ supercomputer. Named Pewma, meaning “dreams” in Mapuche, the system reflects the university's goal of advancing technological innovation while honoring its cultural heritage.

Challenge

UBB required a powerful computing resource capable of meeting the increasing demands of advanced research. The university needed a system robust enough to handle large-scale datasets and support intensive AI and simulation workloads. Additionally, the infrastructure had to facilitate interdisciplinary collaboration, serving the diverse research needs of multiple departments. Designing and deploying a scalable solution to address these objectives required expertise in high-performance computing and a deep understanding of UBB's goals.



AMAX Solution

The NVIDIA DGX system provided the computational power and flexibility needed to address UBB's challenges. This advanced system processes vast datasets, accelerates simulations, and supports cutting-edge AI research. The deployment was executed with precision, ensuring compatibility with UBB's existing infrastructure while providing room for future expansion.

The NVIDIA DGX system offers a scalable architecture designed to grow with UBB's research ambitions. Its flexibility ensures the university can expand its capabilities as research demands evolve, creating a foundation for continued innovation across diverse disciplines.

Outcome

The deployment of Pewma will have a significant impact on UBB's research capabilities:

- **Accelerated Innovation:** Researchers can now conduct advanced simulations and analyze data more efficiently, enabling faster progress across key projects.
- **Broader Collaboration Opportunities:** The system supports interdisciplinary initiatives and fosters partnerships with external organizations, driving innovation beyond the university.

Through AMAX's expertise in deploying NVIDIA DGX systems, institutions like UBB can empower students and researchers with the tools to tackle complex challenges, foster interdisciplinary collaboration, and prepare the next generation of leaders in AI and technology.

"The supercomputer is more than a machine; it's a gateway to the future. A future in which our university will be a key player in the creation of knowledge, in the resolution of complex problems, and in the development of tomorrow's leaders."

**- Dr. Benito Umaña
Hermosilla, Rector of
University of Biobío**