

# NEWSBYTES

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## In this issue...

- |                       |  |  |  |
|-----------------------|--|--|--|
| <b>Corporate News</b> | <b>1</b> SupercomputingAsia 2025 (SCA2025): Get Ready for the HPC Event of the Year!                     | <b>2</b> February Training Roundup: Strengthening HPC Capabilities     | <b>3</b> NSCC Singapore's Innovation Takes Stage at HPC Asia 2025                  |
| <b>Shared News</b>    | <b>1</b> Microsoft unveils Majorana 1, the world's first quantum processor powered by topological qubits | <b>2</b> World's 1st hybrid quantum supercomputer goes online in Japan | <b>3</b> BSC Introduces New Quantum System, Set for Integration into MareNostrum 5 |



## CORPORATE NEWS

### SupercomputingAsia 2025 (SCA2025): Get Ready for the HPC Event of the Year!

*With just two weeks to go, SCA2025 is gearing up to welcome leading researchers, industry experts, and thought leaders in high performance computing (HPC), artificial intelligence (AI), and quantum computing.*

Taking place from 11–13 March 2025 at the Sands Expo and Convention Centre in Singapore, SCA2025 will feature insightful keynotes, expert panels, themed breakout tracks, and hands-on workshops and tutorials. Themed “HPC & Quantum - Empowering AI, Science, and Innovation,” the event will highlight advancements in HPC, AI, and quantum computing and their role in scientific breakthroughs, industry applications, and next-generation innovations.

Join the conference to explore how these transformative technologies are shaping the future of science, industry, and society. Whether you are a researcher or industry professional, SCA2025 offers unparalleled opportunities to gain insights, network with global experts, and drive advancements in supercomputing.

[Register now!](#)



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We are looking for *guest writers / contributors* to be part of our e-newsletters, which are sent out to a subscriber base of more than **7,500** monthly.

If you are interested in contributing content to our NewsBytes, drop us an email at [e-news@nscg.sg](mailto:e-news@nscg.sg) and we'll be in touch with you!

## What to expect at SCA2025

### 1. Main Plenary

SCA2025 will feature a distinguished line-up of world-renowned speakers. Find out more [here](#).



### 2. Breakout tracks, workshop and tutorials

Dive into a broad spectrum of topics, from AI for science, climate simulations, HPC-driven biomedical research, and next-generation supercomputing infrastructure to quantum computing applications. The detailed conference programme is now available online! View the full conference schedule [here](#) now.



### 3. Exhibition & Showcase

With tech giants, international HPC centres, and trailblazing companies converging in one dynamic space, you will have the opportunity to forge meaningful connections and explore the latest solutions and research that will shape the future of supercomputing, enhance your research, and elevate businesses.



### 4. Singapore Pavilion

Singapore continues to drive groundbreaking research in HPC, AI, and quantum technologies, addressing some of the world's most complex challenges. The Singapore Pavilion at SCA2025 will showcase projects from the Agency for Science, Technology and Research's Institute of High Performance Computing (A\*STAR IHPC), A\*STAR Institute for Infocomm Research (A\*STAR I<sup>2</sup>R), Centre for Climate Research Singapore (CCRS), National Quantum Computing Hub (NQCH), and the NSCC Singapore. Delegates can explore advancements in climate science, multimodal language AI, and quantum computing, and also understand NSCC Singapore's role in powering research through supercomputing resources.

### 5. Talent Fair

SCA2025 debuts its first Talent Fair, in line with NSCC Singapore's commitment to empower the next generation of HPC experts through capability building and lifelong learning. Showcasing training programs and short courses from local Institutes of Higher Learning (IHLs), it caters to students and professionals looking to upskill, stay ahead of industry trends, and explore career pathways

**Last call to register for SCA2025 and be part of Asia's premier HPC event!**

Register [here](#) now!

[Back to Main List](#)

## February Training Roundup: Strengthening HPC Capabilities



Attendees attending the Introductory Workshop for ASPIRE 2A (left) and VASP Workshop (right)

In February, NSCC Singapore hosted two workshops to help researchers better leverage HPC to advance their research and projects.

The first workshop, the Introductory Workshop for ASPIRE 2A, was designed to help users navigate Singapore's national supercomputing system. Participants were introduced to NSCC Singapore and the fundamentals of HPC. The session provided an overview of NSCC Singapore's HPC cluster, job scheduling with PBS Pro, available compilers and libraries, developer tools, co-processors and accelerators, environment modules, and commonly used applications.

The hands-on component guided users through essential tasks, such as user enrolment, accessing NSCC Singapore's login nodes, and transferring files. Participants also learned how to create PBS job submission scripts, load environment modules, compile simple C programs, and write job scripts for running MPI applications efficiently on the supercomputer.

Alongside the introductory workshop, NSCC Singapore conducted a Vienna Ab initio Simulation Package (VASP) Workshop, which brought together 33 participants eager to deepen their understanding of this powerful quantum mechanical simulation tool. VASP is widely used for materials science research, enabling first-principles calculations of electronic structure and atomic-scale materials properties. During the workshop, attendees gained valuable insights into optimising their simulations on NSCC Singapore's supercomputer system. Participants learned how to fine-tune input parameters to improve job performance, effectively scale up workloads to accelerate research and leverage GPU capabilities for enhanced computational efficiency. These skills empower researchers to run more accurate and efficient simulations, ultimately driving advancements in materials science and related fields.

NSCC Singapore organises regular workshops for the local HPC ecosystem to learn more about HPC, as well as HPC Clinics, where researchers can receive hands-on assistance with computational challenges on NSCC Singapore's supercomputers.

[Back to Main List](#)

## NSCC Singapore's Innovation Takes Stage at HPC Asia 2025



The NSCC Singapore booth at HPC Asia 2025

NSCC Singapore participated in HPC Asia 2025, a key HPC conference in the Asia-Pacific region, held from 19 to 21 February 2025 in Hsinchu, Taiwan. Hosted by the National Center for High-performance Computing (NCHC) of the National Applied Research laboratories (NARLABS), the event brought together over 200 global experts to explore the latest advancements in HPC, with a focus on chip-based exploration and innovation.

As a key player in the region's HPC ecosystem, NSCC Singapore's presence at the conference reinforced its commitment to international collaboration, knowledge exchange, and industry partnerships. The team showcased EcoTuner, a new tool designed to enhance energy efficiency in HPC workloads and engaged with researchers and technology leaders on potential HPC cooperation.

[Back to Main List](#)

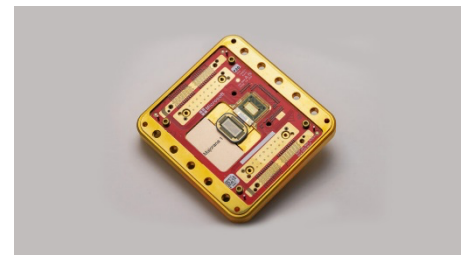
*Shared articles and news from the HPC world.*

## Microsoft unveils Majorana 1, the world's first quantum processor powered by topological qubits

*Built with a breakthrough class of materials called a topoconductor, Majorana 1 marks a transformative leap toward practical quantum computing.*

When cooled to near absolute zero and tuned with magnetic fields, this material enters a topological superconducting state—not a solid, liquid, or gas, but something fundamentally different. Microsoft claims that the Majorana project is a breakthrough in making qubits less unpredictable, one of the key challenges quantum computing has faced.

[Read more](#)



Credit: Microsoft

[Back to Main List](#)

## World's 1st hybrid quantum supercomputer goes online in Japan

*Engineers in Japan have switched on the world's first hybrid quantum supercomputer.*



Credit: Network Today

The 20-qubit quantum computer, called Reimei, has been integrated into Fugaku — the world's sixth-fastest supercomputer. The hybrid platform will work to tackle calculations that can take classical supercomputers much longer to process.

The machine, which is housed at the RIKEN scientific institute in Saitama, near Tokyo, will be used primarily for physics and chemistry research.

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[Back to Main List](#)

## BSC Introduces New Quantum System, Set for Integration into MareNostrum 5

*The Barcelona Supercomputing Center – Centro Nacional de Supercomputación (BSC-CNS) has presented the first quantum computer developed with 100% European technology.*

The new system is part of Quantum Spain, an initiative coordinated by BSC and promoted by the Ministry for Digital Transformation and Public Administration, through the State Secretariat for Digitalisation and Artificial Intelligence (SEDIA).

The combination of quantum and classical technologies will boost research and innovation, fostering industrial and technological progress in Spain and contributing to the creation of highly qualified jobs.

[Read more](#)



Credit: HPCwire

[Back to Main List](#)



Powering Innovation  
Supercomputing in Asia

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