National Supercomputing Centre (NSCC) Singapore e-newsletter

NewsBytes

March 2020

NSCC.SG NSCCSG contact@nscc.sg

Final Call For Projects (July 2020 Cycle) for Supercomputing Resources

Have a need for high performance computing (HPC) in your research project? Or are you interested in supercharging your AI research work with supercomputing resources?

NSCC is pleased to announce the next ***Call for Projects Proposal*** for the ***July 2020 cycle***.

Since July 2017, NSCC has allocated resources on a per-project basis to users who require resources beyond the personal quota of 50 GB storage and 100,000 CPU core hours for the ASPIRE 1 supercomputer.

Application Period:
2 March 2020, 1000 hrs –
30 March 2020, 2359 hrs

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Resources Allocation Period:
1 July 2020 –
30 June 2021

NSCC is also pleased to announce the deployment of the *AI@NSCC Platform*. The system consisting of six DGX-1 nodes are meant for projects that focus on AI research with the particular novelty on scale and/or throughput breakthrough. ***NSCC is now accepting project proposals for allocating resources on the AI System.***

For more information about the Call for Projects, please visit https://help.nscc.sg/nscc-call-for-project-application or contact us at projects-admin@nscc.sg if you have any queries.

Want to know more about the ASPIRE 1 Supercomputer?

NSCC ASPIRE 1 Facility Information:
https://help.nscc.sg/softwarehardware-information/

NSCC ASPIRE 1 Software List:
https://help.nscc.sg/software-list/

How to get the best out of your HPC workloads

An Accelerated Computing Workshop hosted at NSCC was the platform for HPC users to learn how to maximise and optimise their HPC, Deep Learning and Machine Learning workloads.

The NVIDIA-organised workshop explored the value proposition of accelerated computing, in-depth architectural details of a GPU and provided an overview of the tools, libraries and technologies to accelerate High Performance Computing, Deep Learning and Machine Learning workloads. One of the examples was how users could accelerate simulation software like lattice Boltzmann-type codes using NSCC's resources.

Some 60 participants from research organisations such as A*STAR's IHPC, I2R, BII, IMRE, and agencies like DSO and DSTA attended the workshop which was conducted at NSCC and open to invited registered participants via video link.

The Last Byte…

<SHARED CONTENT>

Shared articles and news from the HPC world.

Supercomputers vs COVID-19

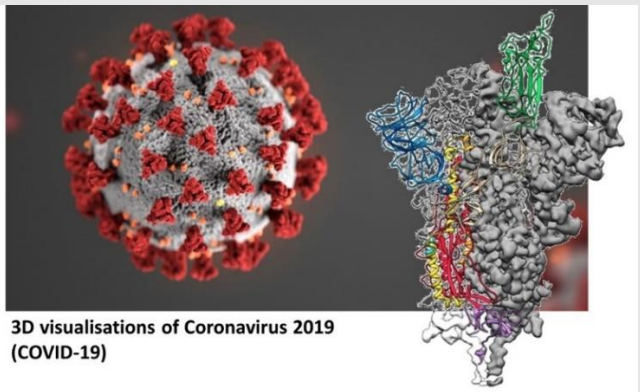
From sequencing virus genome to developing potential vaccines, supercomputers around

the world are being used to combat COVID-19. Here are some articles about supercomputer-enabled coronavirus research.

Top supercomputer in the fight against the virus
The world's most powerful supercomputer, Summit, which is based at Oak Ridge National Laboratory, is being used to test more than 8,000 chemical compounds and their effects on COVID-19. The goal is to find compounds that could stop the virus from infecting healthy cells… Read more here.

Supercomputer speeds up genomic analysis of virus
Lenovo, Intel and a China-based life science company, BGI have teamed up to speed up the analysis of the virus genome using supercomputers. Better understanding of the virus could lead to the development of better diagnostic methods and possible vaccines… Read more here.

Looking for COVID-19 cures using supercomputers
Researchers from Lawrence Livermore Lab are building 3D COVID-19 protein models using supercomputing power to narrow down potential antibody candidates which could be used against the virus… Read more here.



3D visualisations of Coronavirus 2019 (COVID-19)

Genetic sequence of the coronavirus.
Credit: Institut Pasteur / CNR of respiratory infection viruses

Powering Innovation
Supercomputing in Asia
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