SOSCIP's Advanced Computing Platforms - Call for Proposals

Sponsor

SOSCIP (Smart Computing for Innovation)

Program

SOSCIP's Advanced Computing Platforms [1]

Description

Since 2012, SOSCIP has been Canada’s leading R&D consortium dedicated to harnessing advanced computing to drive industry innovation. Their mission is to bring together industrial partners and academic researchers and provide them with advanced computing technologies and expertise to solve social, technical and business challenges. SOSCIP has built an advanced ecosystem that is integrating state-of-the-art technologies alongside highly qualified personnel (HQP) trained to leverage those technologies and drive Ontario companies to the forefront.

SOSCIP is launching two new HPC platforms to meet the rising demand for GPU-Acceleration and Parallel-CPU access among the SOSCIP community.

Highlights of the two systems are below. For a full description of the platforms, visit the SOSCIP's Advanced Computing Platforms? [1] webpage.

GPU-Accelerated Platform

The new SOSCIP GPU-Accelerated Platform is a high-performance GPU cluster powered by NVIDIA Tesla V100 GPUs and IBM Power9 CPUs. Mist [2] is a collaboration between SOSCIP and SciNet, which consists of a total of 54 IBM AC922 servers each with 2×16 core Power9 GPU and 256GB RAM. Each compute node has 4 NVIDIA Tesla V100 GPUs with 32GB of RAM and CUDA capability 7.0 (Volta).This platform supports AI, Machine Learning and Deep Learning frameworks and has the capability of accelerating Molecular Dynamics codes (NAMD, Gromacs, etc.) and other computationally intensive applications in computational chemistry, geophysics, next generation sequencing and astronomy.

Parallel CPU Platform

The new SOSCIP Parallel-CPU platform is a homogeneous high-performance system attached

to the SciNet supercomputer Niagara [3], which is designed to enable large parallel jobs in order to optimize throughput of a range of scientific codes running at scale, energy efficiency, and network and storage performance and capacity. Each compute node (based on Lenovo SD530 server) has 40 Intel Skylake/Cascade-Lake cores with 202GB (188 GiB) of RAM. The platform is an ideal system for running parallel code that cannot obtain cost-efficient speedup through GPUs, such as Computational Fluid Dynamics codes (OpenFoam, Nek5000, etc) and Quantum Chemistry codes (VASP, CP2K, etc).

Special Notes

Terms of Use?

SOSCIP's general Terms of Use [4] are available for reference.

Project Collaboration Agreement

SOSCIP projects are governed by a Project Collaboration Agreement (PCA) which describes the responsibilities and obligations of the collaborators and the rights around intellectual property (IP). If a project is approved, SOSCIP will develop the PCA from their standard templates and send it to the academic institutional partner to secure signatures.

SOSCIP Project Access Fee

Once the PCA is fully signed, an invoice for the SOSCIP project access fee in the amount of **$5,000 + HST** will be sent. The parties to the PCA may wish to share the cost of the SOSCIP project fee.

Note: SOSCIP project access fee may be an eligible expense under NSERC, OCE and Mitacs guidelines.

Deadlines

If College-level review is required, your College will communicate its earlier internal deadlines.

Type	Date	Notes
Internal Deadline	Monday, February 24, 2020 - 4:30pm	Please submit your application, along with an OR-5 Form to research.services@uoguelph.ca [5]. The application requires that the Principal Investigator, Co-Investigators, Industry Partners, and Academic

Type	Date	Notes
		Institutions involved in the project all sign the application.
External Deadline	Friday, March 6, 2020 - 4:30pm	Applicant to submit completed application to SOSCIP.

How to Apply

SOSCIP supports collaborative R&D projects [6] that involve academic and industry researchers working together to solve challenging problems using SOSCIP's compute platforms.

How to Apply

1. Applications must be jointly submitted by a Principle Investigator from any SOSCIP Consortium member institution and their industry partner.
2. The SOSCIP team will assist the applicant in early discussions and provide support in partnership building, computing expertise, and alignment with SOSCIP's mandate.
3. Interested applicants should complete the SOSCIP Collaborative Project Application form [7] and share a draft with the Partnerships team. Where appropriate, SOSCIP will help the applicant determine the best funding program (eg NSERC, Mitacs, OCE) for the needs of the project and industry partner.
4. Completed applications will be evaluated by the SOSCIP Scientific Advisory Committee [8] based on eligibility, suitability, technology, scientific and commercial merits.

Download the application template [9] and apply for priority access on these new platforms.
For Questions, please contact
SOSCIP

For more information, please contact either Andrew Jones at andrew.jones@soscip.org [10] or Amy Hackney at amy.hackney@soscip.org [11] for advice and guidance in completing your application. They will discuss and review all draft proposals ahead of the priority application deadline.

Office of Research

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Research Services Office
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avuk@uoguelph.ca [12]
Alert Classifications**Category:**
Funding Opportunities and Sponsor News

Disciplines:
Health and Life Sciences
Information and Communications Technology
Physical Sciences and Engineering

Source URL:https://www.uoguelph.ca/research/alerts/content/soscips-advanced-computing-platforms-call-proposals

Links
[1] https://www.soscip.org/platforms/
[2] https://soscip.us14.list-manage.com/track/click?u=0950285f0d3fc9f6a427367e6&id=b37ae6f90b&e=84b27d2ea9
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