Supercomputers to Give ITE a Boost in its Applied Artificial Intelligence Projects

ITE to leverage the power of high performance computing (HPC) for use in applied AI projects, workshops and training, and HPC-related student competitions in ITE-NSCC Singapore collaboration.

Singapore, 2 October 2020 – ITE will have access to National Supercomputing Centre (NSCC) Singapore's supercomputing resources. This is agreed in the Memorandum of Understanding (MOU) signed between the two organisations in a virtual ceremony on 2 October 2020. The HPC technology is a significant boost to ITE's artificial intelligence (AI) projects, pedagogy and training.

"Our partnership with NSCC plays a crucial role in enhancing the technological capabilities of ITE's teaching and training programmes. The staff can leverage high computing power to experiment and innovate while the students will have access to this super computing for their learning and projects," said Ms Low Khah Gek, Chief Executive Officer, ITE.

Examples of ITE's innovations for pedagogy and assessment are:

- **In-Class Video Analytics of Students** to analyse emotions and non-verbal cues of students and provide a sentiment scoring matrix for lecturers to identify topics that are well-received by students and areas of lesson delivery that need improvement; and

- **Video Analytics and AI-enabled Assessment of Practical Skills** to assess students as they don smart-glasses and perform timed practical tasks such as servicing or operating machinery and equipment.

"With the supercomputers, speed, ease of use, accuracy and productivity of such AI-related innovations would be greatly improved," added Ms Low.

"HPC will play a key role in the development of smart nation innovations as digitalisation accelerates and a greater number of complex technological applications come online," said Associate Professor Tan Tin Wee, Chief Executive of NSCC. "Apart from providing local researchers with easy access to national supercomputing resources and capabilities to create new smart nation innovations, it is equally important to get our youth started early on HPC to nurture the next generation of data scientists, genomics researchers, advanced manufacturing technologists and AI scientists."

ITE and NSCC will also explore co-organising HPC workshops for students and student competitions in areas like AI applications.

Chinese Translations
- Institute of Technical Education (ITE) - 新加坡工艺教育局
- National Supercomputing Centre (NSCC) Singapore - 新加坡超级计算中心

For further information, contact:
Ms Karen Sum
Head/Publications
Corporate Affairs & Development Division
Institute of Technical Education
(+65) 9875 1132
karen_p_sum@ite.edu.sg

Mr Eugene Low
Marketing & Engagements
National Supercomputing Centre (NSCC) Singapore
(+65) 9230 9235
eugene@nscc.sg

About Institute of Technical Education (ITE)

The Institute of Technical Education (ITE) was established as a post-secondary institution in 1992, under the Ministry of Education. ITE is a principal provider of career and technical education and a key developer of national skills certification and standards, skilling Singapore for the future economy. It offers three key programmes:

- Pre-Employment Training for youths after secondary education,
- Continuing Education and Training for adult learners, and
- Industry-Based and Work-Study Programmes with employers.

Under its 'One ITE System, Three Colleges' Governance Model, ITE has three Colleges - ITE College Central, ITE College East and ITE College West, each empowered to develop their own niches of excellence to enhance students' success and the attractiveness of an ITE Education. For more information, visit www.ite.edu.sg.

About the National Supercomputing Centre (NSCC) Singapore

The National Supercomputing Centre (NSCC) Singapore was established in 2015 and manages Singapore's first national petascale facility with available high performance computing (HPC) resources. As a National Research Infrastructure funded by the National Research Foundation (NRF), we support the HPC research needs of the public and private sectors, including research institutes, institutes of higher learning, government agencies and companies. With the support of its stakeholders, including Agency for Science Technology and Research (A*STAR), Nanyang Technological University (NTU), National University of Singapore (NUS), Singapore University of Technology and Design (SUTD), National Environment Agency (NEA) and Technology Centre for Offshore and Marine, Singapore (TCOMS), NSCC catalyses national research and development initiatives, attracts industrial research collaborations and enhances Singapore's research capabilities. For more information, visit www.nscc.sg.