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The HPC-AI Advisory Council Announces Winners of the 2020 Asia-Pacific HPC-AI Competition

Thirty Teams Across the Asia Pacific Region Participated in the Six-Month Competition that Trains Student Teams to Practice and Produce Solutions using HPC and AI Platforms

Sunnyvale, CA / Singapore –Nov. 18, 2020 – The HPC-AI Advisory Council in collaboration with the National Supercomputing Centre (NSCC) Singapore today announced the university team winners of the 2020 APAC high performance computing (HPC) and artificial intelligence (AI) competition.

The ‘*TinpoC*’ team from the National Cheng Kung University (NCKU), Taiwan returned to the winner’s circle with another first place victory while the team from the National Tsing Hua University (NTHU), Taiwan secured second place. Both teams will be advancing to the ISC-HPCAIAAC Student Cluster Competition in June 2021.

Third place went to the team from China’s Southern University of Science and Technology (SUSTech). Special merit awards were also presented to teams from Singapore’s Nanyang Technological University (NTU) and team ‘*Valkyrie*’ from National Cheng Kung University (NCKU), Taiwan.

Complementing the hands-on experience, the winning teams will return in the new year to present their solutions and accomplishments at the annual [SupercomputingAsia 2021](#) (SCA21) conference, which will be held virtually from 2 to 4 March 2021.

“Our collective futures greatly depend on nurturing every student’s potential, especially in times of adversity such as these. The commitment and resilience demonstrated by this year’s competing teams reminds us all that we need to meet challenges head on and be flexible in adapting to the new normal,” said Associate Professor Tan Tin Wee, Chief Executive at NSCC. “We congratulate this year’s winners and all the 2020 student competitors for going above and beyond to deliver truly inspiring work and solutions despite having to cope with one of the most disruptive times in history.”

“High performance computing and Artificial Intelligence are the most essential tools fueling the advancement of science. In order to handle the ever growing demands for higher computation performance and the increase in the complexity of research problems, the world of scientific computing continues to re-innovate itself in a fast pace,” said Gilad Shainer, HPC-AI Advisory Council chairman. “The council mission is to foster the next generation of supercomputing leadership, and to help develop the next generation of platforms and knowledge. We would like to thank Professor Tan Tin Wee and the team from NSCC Singapore on their support and collaboration in this important mission.”

Combining graduate, advanced degree and undergraduates, over 150 students balanced added demands of the six month competition and pandemic with class and course loads. Competing across APAC, teams tackled challenges in natural language processing and climate simulation and two novel bioscience and open innovation challenges with the potential to positively contribute to global research efforts to end the COVID-19 crisis.

“These students are ones to watch. Regardless of experience or level of studies, their overall technical astuteness is impressive, and the outcomes of their projects are incredible,” said Maciej Cytowski, Pawsey Supercomputing Centre’s Head of Scientific Services and competition judge. “This competition allows them to gain skills that are still hard to find at undergrads level and help build the HPC experts of the future with hands-on experiences. The online format of the competition is opening this experience to more participants around the world, increasing the impact for students and the HPC community in general” Maciej’s continued. “I would like to congratulate all the participants for their

contribution to the HPC and AI communities; you should all be proud of your results, performance and particularly your accomplishment. All of the effort and time invested, it is invested in yourself, and the results speak by themselves, are brilliant.”

“Many teams are highly proficient in managing and optimizing high performance computing workloads. In particular, some undergraduate student teams have demonstrated graduate-level competency in training and tuning deep neural networks for natural language processing,” said Professor Ouyang Ming of UMB, Associate Professor of Computer Science, College of Science and Mathematics, University of Massachusetts Boston. “Their skills are great assets for accelerating AI developments in the APAC region.”

“The 2020 APAC HPC-AI competition brought together a set of talented students from the Asia-Pacific region to work on emerging problems in HPC and AI as well as on open research challenges,” said Hari Subramoni, Research Scientist, Department of Computer Science and Engineering, The Ohio State University. “The quality of work presented by the students was very high and they demonstrated very good knowledge of the various aspects of HPC including high-end computing applications, middleware and hardware, and has the potential to give them a huge boost in their future careers.”

Along with the co-organizers, support for 2020’s third annual competition was provided by Singapore Advanced Research and Education Network (SingAREN), AMD, NVIDIA and WekaIO.

For more information on the APAC HPC-AI Competition
<http://hpcadvisorycouncil.com/events/2020/APAC-AI-HPC/>

About HPC-AI Advisory Council

Founded in 2008, The HPC-AI Advisory Council (HPCAIAC) is a for community benefit organization with over 400 members committed to promoting HPC and AI through education and outreach. Find out more, become a member @ hpcadvisorycouncil.com

About National Supercomputing Centre Singapore

Established in 2015, the National Supercomputing Centre (NSCC) Singapore manages Singapore's first national Petascale facility providing high performance computing (HPC) resources. As a National Research Infrastructure, NSCC supports private and public sector research including commercial companies, government agencies as well as higher education and research institutes. Through the support of its stakeholders including the Agency for Science Technology and Research (A*STAR); Nanyang Technological University (NTU); National University of Singapore (NUS); Singapore University of Technology and Design (SUTD); the National Environment Agency (NEA) and Technology Centre for Offshore and Marine, Singapore (TCOMS); and funded by the National Research Foundation (NRF), NSCC catalyses national research and development initiatives, attracts industrial research collaborations and enhances Singapore's research capabilities. For more information, please visit: nscg.sg

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