ASPIRE Forum 2024 at Tsinghua University

From July 1 to 6, Tsinghua University in China hosted the ASPIRE Forum, the annual gathering of members of the ASPIRE League, which includes Tokyo Institute of Technology.

The ASPIRE League, proposed by Tokyo Institute of Technology and established in 2009, is a consortium of the top science and engineering universities in Asia. Its aim is to form an innovation hub in the region through the development of science, technology, and human resources. The five member universities are Tsinghua University (THU), Hong Kong University of Science and Technology (HKUST), Nanyang Technological University (NTU), Korea Advanced Institute of Science and Technology (KAIST), and Tokyo Institute of Technology (Tokyo Tech*). Tokyo Tech has served as the League's secretariat since its establishment.

Institute of Science Tokyo (Science Tokyo) from October 2024

Symposium

The ASPIRE Symposium was held on July 4. Researchers from each university gave talks related to this year's forum theme, "Powering a Sustainable Future with AI."

Professor Tien Y. Wong, Founding Head and Chair Professor of Tsinghua Medicine and Vice Provost of Tsinghua University, moderated the session, which included presentations by Professor Jun Sakuma (Tokyo Tech), Professor Liu Jingjing (THU), Assistant Professor Shi Chao (NTU), Professor Qu Huamin (HKUST), and Professor Tae-Kyun Kim (KAIST), all of whom also participated in a Q&A session. Professor Sakuma of Tokyo Tech gave a talk titled "AI Security: A New Perspective of Defensive Attack."

Vice Presidents and Senior Staff Meeting

On the afternoon of July 4, the Vice Presidents and Senior Staff Meeting was held. Tokyo Tech was represented by Professor Junichi Takada, Secretary General of the ASPIRE League, and Professor Nobuhiro Hayashi, Vice President for International Affairs.

The vice presidents from each ASPIRE League member university shared updates on recent international collaborative activities at their respective universities and discussed future League activities. Proposals for the ASPIRE League Partnership Seed Fund (start-up support for collaborative research among ASPIRE League member universities) for the 2024 cycle were also reviewed.

Tokyo Institute of Technology's ASPIRE League membership was also approved to transfer to Institute of Science Tokyo, following the merger of Tokyo Institute of Technology and Tokyo Medical and Dental University in October 2024.

Tokyo Tech reported on the ASPIRE Undergraduate Engineering Design Challenge 2024, which was held the week before the ASPIRE Forum 2024. It was proposed and approved that the third ASPIRE Undergraduate Engineering Design Challenge will be held again at Science Tokyo in June 2025, and that the ASPIRE Forum 2025 will be held at Hong Kong University of Science and Technology in July 2025.

After the meeting, an online session was held to report the results of seven collaborative research projects supported by the ASPIRE League Partnership Seed Fund to date. Associate Professor Yoichi Yatsu of Tokyo Tech, who was selected for the third round of funding in 2021, presented his joint research results with NTU.

Student Workshop

This year's student workshop was held at Tsinghua University from July 1 to 5. A total of 22 graduate students from each member university participated and were divided into five groups for collaborative work. The workshop was led by Associate Professor Zhiyong Fu from the Department of Information Art & Design at the Academy of Arts and Design, Tsinghua University. It focused on designing smart products of the future with an emphasis on achieving the Sustainable Development Goals (SDGs).

On the last day of the workshop, the students presented the results of their group projects on the forum's theme, "Powering a Sustainable Future with AI," to the vice presidents and senior staff of each member university. The five student groups proposed a smart house, a smart vehicle, a plant gardener (for indoor greening and human coexistence), intelligent clothing, and a smart collar (a product designed to help people live in harmony with their pet dogs). Following the presentations, each group was awarded a prize.

Reflecting the AI-focused theme of the ASPIRE Forum 2024, all participants also had the opportunity to visit two Chinese companies: Baidu, known for its Apollo PJ self-driving car project, and Xiaomi, a leader in smartphone technology.

Tokyo Tech Participants

The next ASPIRE Forum will be held at Hong Kong University of Science and Technology in July 2025.