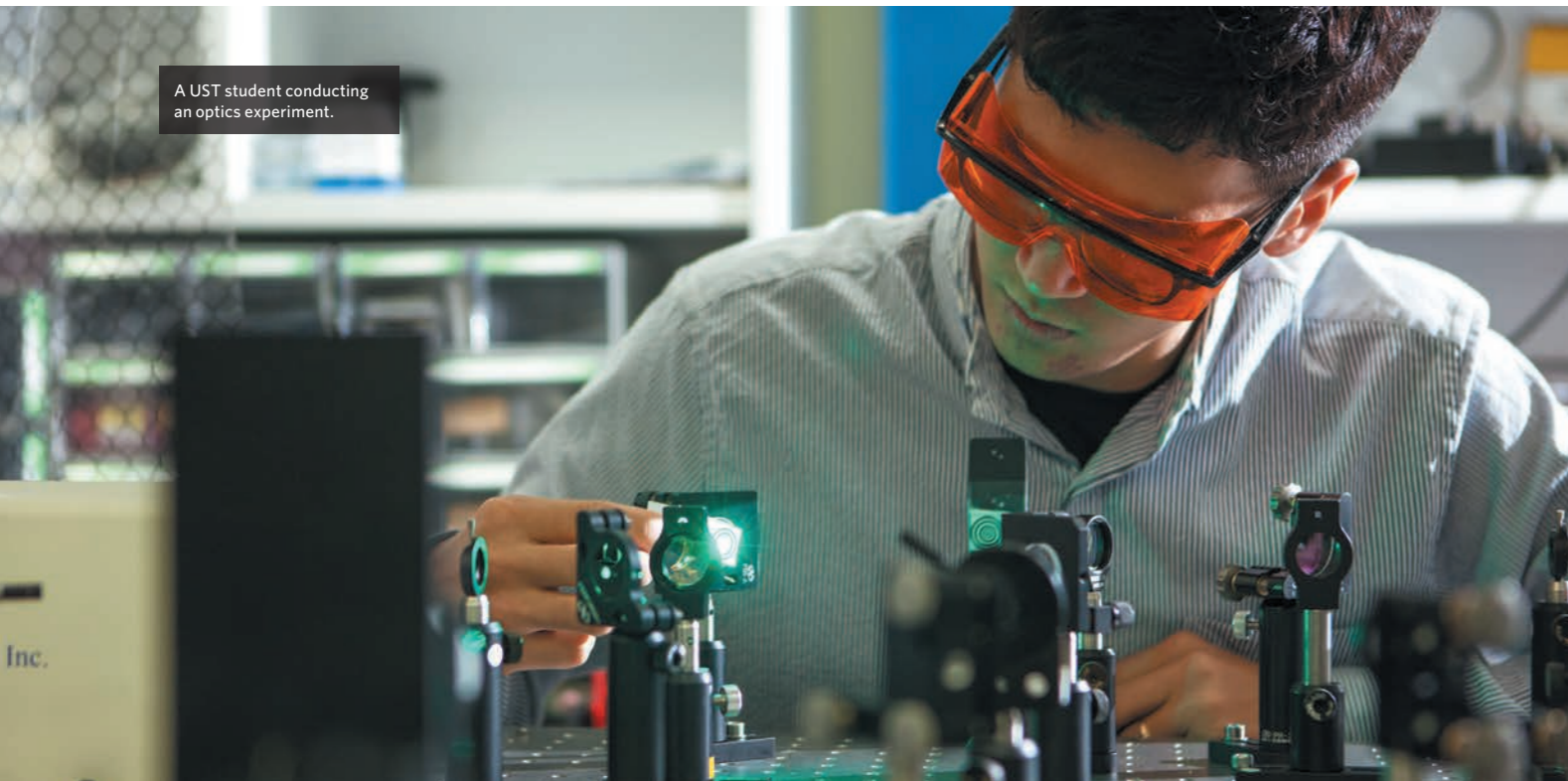


A UST student conducting an optics experiment.



NEW AND NIMBLE FOR GLOBAL IMPACT

South Korea's **UNIVERSITY OF SCIENCE AND TECHNOLOGY** is training the next generation of international research leaders.

Established just 16 years ago, the University of Science and Technology (UST) in South Korea is a very different kind of university ecosystem. It nurtures the scientific and technical professionals of the future by leveraging the country's many prominent research institutes.

A unique system with unique benefits

"As South Korea's only national research graduate school, UST plays a critical role in fulfilling the education function of government-funded research institutions," explains Kil-Choo Moon, the university's president. "The campuses of UST are our 32 national research institutes, including the likes of the

world-leading Korea Institute of Science and Technology (KIST), Korea Research Institute of Bioscience and Biotechnology (KRIBB), and the Electronics and Telecommunications Research Institute (ETRI). We have about 1,300 outstanding researchers who double as UST professors."

This educational system allows students to undertake courses in cutting-edge technology delivered by researchers with access to world-class research facilities and infrastructure, while at the same time contributing to current national research and technology projects.

"We're not deterred by our short history," says Moon.

"Through our existing national research institutes, we can give our students a different level of education that combines accrued research know-how with formal training, as well as experience in medium- and large-scale national projects and in conducting cooperative research with national and international research partners. This will enable our students to adapt more quickly as researchers and to realize higher productivity."

An advantage of having a close association with dozens of research institutes is the ability to adapt quickly to changing technology, societal needs and global circumstances by adjusting the curriculum based on the latest knowledge.

"All educational and research institutions need to change over time, but UST has the fluidity and speed to be able to keep up with rapid changes in trends and technology by reorganizing its curriculum," says Moon. "Over the next two years, we will be undertaking a major renewal of our curriculum, which will give our students the chance to proactively learn about and respond to a rapidly changing society."

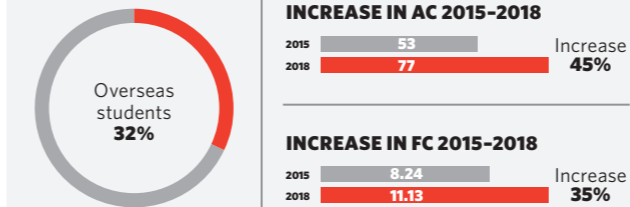
The world within

UST attracts many international students, who currently account for about one-third of its current student population. "As one of the top-ranked universities in South Korea, we attract students

GAINING MOMENTUM

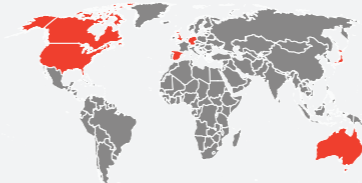
UNIVERSITY OF SCIENCE AND TECHNOLOGY

is going from strength to strength



TOP 5 COLLABORATING COUNTRIES BY NUMBER OF COLLABORATING INSTITUTIONS (2018)

1. United States of America **25**
2. Japan **9**
3. United Kingdom **8**
4. Canada and Germany **6**
5. Australia and Spain **5**



© FreeVectorMaps.com

from more than 40 countries all over the world, including Vietnam, Pakistan, Indonesia, India and Ethiopia," says Moon.

International students are recruited through an international admission process conducted twice a year. Selected candidates are then interviewed on campus or by teleconference. Enrolled students become part of the UST education system and are eligible for a monthly stipend of KRW 1,200,000 (about USD 1,000) for master's students and KRW 1,600,000 (about USD 1,400) for doctoral students. They also have opportunities to conduct international research and are eligible for awards that recognize outstanding research achievements.

Before starting their first semester, new UST students participate in the four-week Freshman Odyssey programme. "Both international and domestic students take the programme, which is given in English and includes basic science, common subjects and

Korean language," says Moon. "This compulsory UST-wide programme assists students to adapt quickly to UST's unique education-research system."

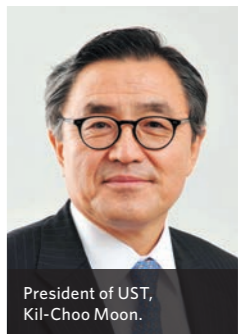
The factors for success

All UST students participate in current national research projects. Many of these projects are top-flight programmes, 22 of which were recognized by inclusion in the Top 100 Outstanding National Research and Development Products in 2018 by the Ministry of Science and ICT and the Korea Institute of Science & Technology Evaluation and Planning. The UST also holds the domestic title for the most academic papers for outstanding research results in 3D printing and the internet of things (IoT). Papers with UST doctoral graduates as primary authors accounted for almost half of the outstanding results in the top 10% of journals by field, according to the 2018 *Journal Citation Reports*.

"One of the main factors for our research success is UST's



UST boosts excellent facilities for growing solid-state samples.



President of UST, Kil-Choo Moon.



Two UST students examining a sample.

capacity to certify campuses with outstanding capabilities as specialist graduate schools, which can then focus on specific advanced research fields," says Moon. "For example, the Electronics and Telecommunications Research Institute campus became the UST ETRI School of ICT, which now provides a curriculum that specializes more in ICT. It is this kind of specialized education system that helps UST produce outstanding research results."

A beacon for outstanding talent

UST offers a Global Research Internship to talented international students from universities around the world, providing opportunities through a short-term international placement to experience the UST's unique education system and participate in national research projects with renowned advisory professors. In 2019, more than 1,000 students from 81 countries applied for the internship programme.

Through the Young

Scientist Research Program, UST students propose leading research topics and are supported by a KRW 30,000,000 (about USD 25,000) research stipend. Furthermore, through the Overseas Training Program, UST supports students to participate in internship programmes, research visits, research collaborations, and other activities for up to 90 days. This allows them to conduct research at overseas universities and research institutions.

"UST's education system and access to 32 national research institutes makes it highly appealing to many international students," says Moon. "The programme also helps us maintain strong connections with universities around the world and attract the most outstanding global talents." ■

