



University of Tokyo and TSMC Announce Organization-Wide Advanced Semiconductor Technology Collaboration

Tokyo, Japan, and Hsinchu, Taiwan, R.O.C. – Nov. 27, 2019 - The University of Tokyo and TSMC today announced an alliance to pursue organization-wide collaboration in leading-edge semiconductor technology. Under the alliance, TSMC will provide its CyberShuttle® multi-project wafer prototyping service to the Systems Design Lab, or d.lab, of the Graduate School of Engineering at the University of Tokyo. The d.lab will also adopt TSMC's Open Innovation Platform® Virtual Design Environment (VDE) for their chip design process. In addition, University of Tokyo researchers and TSMC R&D personnel are building a platform for direct collaboration to jointly research semiconductor technologies for the future of computing.

The University of Tokyo d.lab, newly launched in October 2019, is a research organization where industry and academia collaborate on the design of specialized, application-specific chips to support a knowledge-intensive society of the future. While d.lab serves as a design hub, the University of Tokyo-TSMC alliance serves as a gateway to turn d.lab's diverse designs into functioning chips. For the innovators at d.lab, TSMC's VDE provides a secure and flexible cloud-based design environment supported by TSMC's comprehensive design infrastructure, while the CyberShuttle® service greatly lowers the barriers to obtaining prototype chips manufactured using the semiconductor industry's most advanced process technologies.

Furthermore, the University of Tokyo and TSMC plan to collaborate on cutting-edge research in materials, physics, chemistry, and other fields to push the limits of scaling, as well as explore other paths to advance the state of semiconductor technology. The alliance has already taken its first step with a symposium at TSMC in Hsinchu on November 1, 2019, where University of Tokyo researchers from a broad array of disciplines met with TSMC technologists to identify opportunities for collaborative research, opening the door to joint projects in the future.

“Japanese industry is making a paradigm shift to a knowledge-intensive society, and this alliance with TSMC will connect us to the world's most advanced factories, contributing to the realization of Japan's national strategy of Society 5.0,” said Makoto Gonokami, President of the University of Tokyo. “We are pleased to collaborate with TSMC, a world-leading semiconductor company, to establish this alliance between industry and academia across national boundaries.”

“There are many paths to improving semiconductor technology for the industry to explore, and TSMC actively collaborates with many top academic institutions around the world. We are delighted we now have University of Tokyo as one of our partners,” said Dr. Mark Liu, Chairman of



TSMC. “TSMC’s role in the semiconductor industry is to facilitate more innovators and unleash the power of their innovation. I believe this alliance between TSMC and University of Tokyo will be able to transform many innovative ideas into real products that will enrich our society.”

About University of Tokyo

The University of Tokyo was established in 1877 as the first national university in Japan. As a leading research university, UTokyo offers courses in essentially all academic disciplines at both undergraduate and graduate levels and conducts research across the full spectrum of academic activity. The University aims to provide its students with a rich and varied academic environment that ensures opportunities for both intellectual development and the acquisition of professional knowledge and skills. To learn more about the University of Tokyo, please visit <https://www.u-tokyo.ac.jp/en/about/about.html>

About TSMC

TSMC pioneered the pure-play foundry business model when it was founded in 1987, and has been the world’s largest dedicated semiconductor foundry ever since. The company supports a thriving ecosystem of global customers and partners with the industry’s leading process technology and portfolio of design enablement solutions to unleash innovation for the global semiconductor industry.

TSMC serves its customers with global capacity of more than 12 million 12-inch equivalent wafers per year in 2019, and provides the broadest range of technologies from 2 micron all the way to foundry’s most advanced processes, which is 7-nanometer today. TSMC is the first foundry to provide 7-nanometer production capabilities and the first to commercialize Extreme Ultraviolet (EUV) lithography technology in delivering customer products to market in high volume. TSMC is headquartered in Hsinchu, Taiwan. For more information about TSMC please visit <http://www.tsmc.com>.

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