## ROBERT BOSCH AWARD RECIPIENT



The Robert Bosch Micro and Nano Electro Mechanical Systems Award was established by the IEEE Electron Devices Society in 2014 torecognize and honor advances in the invention, design, and/orfabrication of micro- or nano- electromechanical systems and/ordevices.

> The 2024 Bosch Award will be presented on Monday, 22 January at 08:30.

## SUSUMU KAMINAGA

## For Development and Commercialization of Deep Reactive Ion Etching Technology

**Susumu Kaminaga** studied mechanical engineering at the University of Tokyo before joining Sumitomo Precision Products (SPP), Japan in 1969. Through his career with technological background in the industry, he made a lot of achievements for MEMS, especially, R&D and commercialization of deep reactive ion etching (DRIE) technology based on Robert Bosch invented Bosch Process. Initially, he ran Surface Technology Systems (STS) in U.K. to take initiative of the R&D and commercialization of DRIE technology under collaboration with Robert Bosch. The world first DRIE tool was introduced into the market in 1995. The technology has enabled many new MEMS devices to emerge and contribute to rapid growth of MEMS application for automotive, inkjet printers, displays, smartphones, healthcare and IoT. It has been said in the MEMS society that those applications could not be made available without the development and commercialization of DRIE technology. He founded SPTS Technologies and SPP Technologies (SPT) as SPP's affiliated companies to focus on further development and commercialization of

MEMS technologies. He is keeping involved even now in supporting further development and commercialization of DRIE technology. He has given hundreds of speeches at academia, industry and international conferences including many IEEE organized ones. His talks inspired researchers, engineers and managers to develop MEMS technology for the purpose of new business creation in the world of IoT and smart societies. He was a member of External Advisory Board of the Mechanical Engineering Department at the University of California, Berkeley from 2007 to 2014.

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