

Preface

Prof. Seiji Samukawa (Tohoku University)

Taiwan is today the world's foremost semiconductor nation and in research and development, it is the world's leader in cutting-edge technologies. The global hub of this semiconductor-device research and development is Hsinchu Science Park centered about National Chiao Tung University. Based on an ideal industry-government-academia collaborative system established in Hsinchu Science Park as a business ecosystem, National Chiao Tung University is an institution having world-class expertise in the research and development of semiconductor devices, circuits, and systems. Now, with the IoT and AI era in sight, it is becoming a platform for AI chips (Taiwan Moon Shot Project has been already started.) as a foundation for those technologies, and in parallel with this development, it is expanding its education in semiconductor devices and systems. In addition to attracting top-notch students from Asia and around the world, National Chiao Tung University is developing high-quality semiconductor researchers and engineers for the AI society across a wide range of educational programs in electronics.

We are convinced that, with regard to the global dissemination of Tohoku University original "materials process", "nano-device" and "sensor technologies" for Hydrogen Energy, Nano-device system and Bio-medical sensor network developed up to now and their application, it is more effective to pursue these activities at National Chiao Tung University via the industry-government-academia collaborative system. We are greatly interested in collaborating with National Chiao Tung University that, among all universities in Taiwan, is the most specialized in industry-government-academia collaboration in meeting the challenges of AI technologies. By cultivating a strong partnership (best friendship) between NCTU and Tohoku University in this way, we would like to build up the world's most advanced and practical industry-government-academia research and development hub (including educations) in both universities. Through these activities, we would also like to contribute to the vitalization of Japan's and Taiwan's electronics industry based on international collaboration.