

e-Manufacturing & Design Collaboration 2016

Keynote Speech: **Facing Red Supply Chain When Moore's Law Is Ending**



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About the Speaker

Mr. CY Shu has devoted himself to Semiconductor realm for more than 30 years, participated in the development of IC industry in Taiwan, which is originated in transferring technology from RCA Company, USA. In his long career path, Mr. CY Shu contributed to the IC industry through executive management position at ITRI, TSMC and UMC. He joined Hermes-Epitek in 2001, and since then has served as president & COO. From 2004 till present, he also worked for HMI as President first and then chairman, establishing a Taiwan based manufacturing plant for e-Beam inspection tool and facilitating e-Beam inspection technology to become a must-have tool for advanced IC manufacturing wafer fab worldwide.

Mr. Shu has received BS from 1973 NCTU EE and a master's degree in Optoelectronics from NCTU in 1985. He received an Outstanding Alumnus Award from NCTU in 1999, and elected Fellow of Chinese Society for Management of Technology (CSMOT) in 2008; and in 2014, Mr. Shu received the ERSO Award in 2014, which is sponsored by the Pan Wen Yuan Foundation. Moreover, Mr. Shu has served as the chairman of IC Committee and High-Tech facility committee in SEMI, and also the director-general in Chinese Professional Management Association Hsinchu (CPMAH) for two terms. Mr. Shu dedicated himself to not only Semiconductor realm, but also contributed to the public affairs and community services.

Abstract

Today, slower PC and smartphone demand, rising of the Red Supply Chain and ending of Moore's Law introduce new uncertainties to the future development of the semiconductor industry. Despite huge end market opportunities projected for new innovations like 5G, Internet-of-Things, Autonomous Vehicles,

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Virtual/Augmented Reality, Big Data, etc., their impact on semiconductor revenue growth has yet to be fully realized. These market transitions and challenges result in ubiquitous anxiety across the industry.

How to cope with such market transitions and challenges is a big but important topic that warrants discussion. As a late comer to e-beam inspection system for wafer process control, HMI also experienced a period of market transitions and challenges but was able to achieve remarkable growth from 2011 to 2014. In short, there are three key success factors that enable such growth: 1) integration of global value chain, 2) in-house cultivation of core technologies and localization of manufacturing and 3) continuous customer collaboration on new innovations. In particular, early engagements with customers and continuous improvements of technologies and products are the fundamentals to win customers' minds and businesses.