McCormick Connects with Alumni in Taiwan

In December, Dean Julio M. Ottino and members of the McCormick community did just that. They traveled to Taiwan to meet with alumni at “Innovation at Northwestern,” a presentation and reception hosted by McCormick and the NU Club of Taiwan. Ottino delivered a talk at Asia University, where he was hosted by the university’s president Jeffrey Tsai (PhD ’86).

Ottino also met with leaders of Taiwan’s high-tech sector, a global powerhouse that produces 94 percent of the world’s motherboards and notebook PCs. Not surprising, those high-tech leaders included three McCormick graduates from the 1980s: Shih-Wei Sun (PhD ’86), Pei-Jih Wang (PhD ’87), and Kuo-Hsin Huang (PhD ’88). All three had studied materials science and engineering under McCormick’s Bruce Wessels, the Walter P. Murphy Professor of Materials Science and Engineering and highly regarded for his expertise in the area of integrated circuitry.

SUN RISES THROUGH THE RANKS

After working for Motorola for 10 years, Shih-Wei Sun joined United Microelectronics Corp., a global semiconductor foundry that provides advanced technology and manufacturing for applications spanning every major sector of the integrated circuit industry. Sun quickly moved up through the ranks, serving as chief operations officer, then director and chief executive officer, and now vice chairman.

In recounting the impact Wessels had on his education, Sun notes, “he gave us well-balanced graduate training—from the hands-on setup of lab equipment and design of experiments to theoretical interpretation. He also painstakingly helped international students write scientific papers and dissertations. He didn’t just help with the English, he also provided guidance on flow, logic, and structure, which was proven to be invaluable throughout my career and life.”

TWO TOP LED LEADERS

Pei-Jih Wang founded Trend Lighting Corporation (TLC) in 2008 to provide environmentally friendly light emitting diodes (LEDs) for streetlights and indoor solid-state lighting. TLC now ranks as one of the Taiwan’s largest companies. In 2009, Wang created Hexalux Optoelectronics Corp. to manufacture LED epitaxial layers and chips.

“Before joining Northwestern, I was in the field of metallurgy,” Wang said. “I knew nothing about semiconductors besides knowledge from textbooks. Professor Wessels helped me build a solid foundation in the field and the basis for my lifelong career.”

Nicknamed the “godfather of Taiwan’s LED industry,” Kuo-Hsin Huang started two companies to manufacture LED chips and wafers. He is the chairman and chief executive officer of High Power Optoelectronics, a company he founded that produces electronic components, lighting equipment, and computers and peripherals. Earlier, in 1993, he also cofounded United Epitaxy. Within two years, it became one of the three global companies (with Hewlett-Packard and Toshiba) capable of manufacturing high brightness LEDs.

“My PhD thesis focused on metal-organic vapor phase epitaxy,” Huang said. “It became the most important work in my career.”