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[\[Report of Honor\] NTHU Professor Y. S. LIU Awarded as 2011 SPIE Fellow](#)[Report of Honor] NTHU Professor Y. S. LIU Awarded as 2011 SPIE Fellow ([Chinese Version](#))

NTHU News Y. S. LIU, Vice President of University System of Taiwan and Professor of NTHU Institute of Photonics Technologies, was recently honored as 2011 SPIE Fellow. SPIE (the Society of Photo-Optical Instrumentation Engineers) was founded in 1955. The society aims at the promotion of optic- and photonic-based technologies. It consists of members from more than 168 countries and is the largest international optical and photonical society.

Majored in laser optics and molecular physics, Prof. LIU has made many significant contributions in these areas. During his working period in GE Company, U.S., Prof. LIU conducted a research team in developing solid-state slab-type laser, which made the world record of the highest-power solid-state laser. The team then utilized intra-cavity frequency-doubling technology to develop high-power, green-light laser. Such development broke the limits of laser's power output and reached 30 times more than the world record; therefore, this high-power, green-light laser is widely used nowadays in academic research, material processing as well as industrial and medical application. Prof. LIU is also the inventor of laser epitaxial thin film technology and is the pioneer of low-temperature, poly-silicon (LTPS) technology, which is commonly used nowadays in making LCD flat panel display. In addition, Prof. LIU studied the traits of poly-molecule materials when they encounter UV rays, and had published several papers in this field. Furthermore, he proposed "Excimer Laser Ablation" theory with G.D. MAHAN, which is widely adopted in medical areas.

Afterwards, Prof. LIU hosted an inter-company research plan by DARPA (Defense Advanced Research Projects Agency). The plan comprised resources and dynamics from several big companies and universities such as GE, IBM, ATT, AMP, Honeywell, Allied Signal, UC and Columbia University. The research plan aims at the R&D of broadband optical connection technology (trans. temp.). This plan was highly recognized for its contribution, and as a result, Prof. LIU was chosen as "50 R&D Stars to Watch" by the American magazine Industry Week, and as Fellow of OSA (the Optical Society of America) as well as Fellow of Taiwan Photonic Society.

In 1998, had finished his 26-year work in GE Company, Prof. LIU came back to Taiwan, working in ITRI Electronics & Optoelectronics Research Laboratories, and started his career in developing and promoting optoelectronic industrial technologies in Taiwan. The progress contributed a lot in optosemiconductor LED technologies and industry. In 2006, he was invited as the professor of NTHU Institute of Photonics Technologies. During the teaching period, he investigated in semiconductor light source and lighting, and he also made great efforts in cooperation academically and industrially with China. In 2008, he was honored with the highest prize of Taiwan Photonics Society - Optical Engineering Medal.

## Reference:

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