Asian American Engineer of the Year

Dr. Shengyi Liu

Technical Fellow Boeing Research and Technology The Boeing Company



Citation of Accomplishments

Internationally recognized scholar and expert for contributions to multifunctional power conversion and advanced power source integration for aircraft applications.

Dr. Shengyi Liu is a Technical Fellow and Chief Architect of Platform Subsystems for Boeing Research and Technology. He has been the technical lead in the area of power generation, conversion, distribution, and energy storage since he joined the Boeing Company. He is instrumental in initiating new and emerging technology projects for aerospace platforms. His outstanding technical judgment has contributed greatly to cutting-edge technology development.

Shengyi is an internationally known expert in advanced power sources, power electronics converters, motor drives, and hybrid electric power systems. In the area of his expertise, he holds 36 US patents and 25 international patents. He has published many peer-reviewed articles, which have been widely used as technology development references in the area of power and energy systems and components, with citations across professional societies such as IEEE, ASME, SAE, and ECS. According to a 2016 survey conducted by the Council of Canadian Academies, Shengyi authored one of the top 1 percent most-cited papers in his field. He was a recipient for 10 Boeing exceptional performance and achievement awards. In 2017, he was selected to receive the Career Achievement Award by the Society of Asian Engineers and Scientists. He was also elevated to 2018 Class IEEE Fellow.

Throughout his more than 35 years of industrial practice and academic research, Shengyi has demonstrated outstanding technical creativity and judgment in widely divergent assignments. Today, for Boeing Research and Technology, Shengyi deploys his principal investigator and technical lead skills in demanding projects such as vehicle power systems for Boeing Defense, Space & Security, and high efficiency power converter/motor drive systems for Boeing Commercial Airplanes.

Shengyi was born and raised in northern China, earning both his bachelor's degree in nuclear engineering and master's degree in electrical engineering at Tsinghua University in Beijing. Shengyi was a faculty member at Tsinghua University for six years before coming to the United States to pursue his doctoral degree in electrical engineering at the University of South Carolina. After obtaining his Ph.D. degree, he worked as a senior R&D engineer at InnerLogic Inc. In 1999, Shengyi took a position as a research professor and graduate faculty member in the Electrical Engineering Department at University of South Carolina. In 2006, he joined The Boeing Company.

At time of his leisure, Shengyi enjoys spending time to explore wonders of nature together with his family. He also finds volunteering rewarding as one way in return to nature. As a senior member of IEEE from 2002 to 2017, Shengyi also participates in many of the organization's service activities.

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