

Thermal Spray Society announces the 2026 Hall of Fame recipient: Hanlin Liao

Thermal Spray Society An Affiliate Society of ASM International THERMAL SPRAY HALL OF FAME

The Thermal Spray Hall of Fame was established in 1993 to recognize the many outstanding leaders who have made significant contributions to the science, practice, education, management and advancement of thermal spray. Nominations for the Class of Inductees into the TSS Thermal Spray Hall of Fame are accepted until 30 September of the preceding year. Candidates for the Thermal Spray Hall of Fame may be proposed by any five members of the Thermal Spray Society or any of the working groups, committees, subcommittees or other duly recognized bodies within the Thermal Spray Society.



Mr. Hanlin LIAO is a Professor Emeritus at the University of Technology of Belfort-Montbéliard (UTBM), France. He is a preeminent figure in materials science, recognized internationally for his pioneering work in thermal spray technologies and additive manufacturing processes. Over a four-decade career, he has shaped the evolution of surface engineering on a global scale.

Professor LIAO's scientific odyssey began in 1982 in China. Following his initial university formation, he moved to France to pursue advanced research, earning his PhD from UTBM in 1994. His career is inextricably linked to the growth of the thermal spray laboratory in ICB-PMDM (UMR 6303 CNRS), where he served as the head of the Thermal Spray division, transforming it into one of the most influential thermal spray research centers in Europe.

Throughout his career, Professor LIAO has focused on mastering matter-energy interactions. His fundamental research has led to major advancements in the industrialization of complex processes: - Advanced Thermal Spray: A world-renowned specialist in Very Low-Pressure Plasma Spraying (VLPPS), natural gas HVOF (High Velocity Oxygen Fuel), and Cold Spray. - Additive Manufacturing: A pioneer in integrating thermal spray or cold spray techniques with additive manufacturing and Laser Powder Bed Fusion (L-PBF) for complex metallic structures and - Advanced Materials: His research spans a wide spectrum, including nanostructured coatings, quasicrystalline deposits, functional layers for energy, biomedical coatings, and composite materials for thermal management. Professor LIAO is distinguished by his unique ability to translate industrial challenges into high-level research objectives. A true "bridge-builder" between Europe and Asia, he has established long-term strategic collaborations with global industrial leaders: Aerospace & Defense: Airbus, Dassault Aviation. Automotive: Stellantis (PSA), Renault. Energy & Manufacturing: Saint-Gobain, Tefal. He has coordinated numerous nationally and internationally funded research consortiums, facilitating critical technology transfers across several high-tech sectors.

The impact of Professor LIAO's work is reflected in his monumental scientific output and his unwavering commitment to the global scientific community: Over 500 articles in top-tier international journals, 7 patents, and several foundational book chapters. More than 200 presentations, including numerous Keynote and Plenary lectures worldwide. Committees & Honors: An active member of various editorial boards and an expert for international standardizing bodies. He frequently serves on excellence juries and steering committees for major global events.

At the heart of his vocation is a deep passion for education and Transmission of Knowledge. Professor LIAO has mentored an entire generation of scientists, supervising over 40 PhD students (many through international co-tutorships) and 19 postdoctoral researchers. He has also designed and implemented innovative specialized curricula in materials science and additive manufacturing for both university students and industry professionals.

Liao was recognized “For building bridges between research and industry, as well as between Europe and Asia, in the field of cold spray and thermal spray coatings.”