

Thermal Spray Society announces Hall of Fame recipients: Heiko Gruner, Neil Matthews and Subramaniam Rangaswamy

Dr. Heiko Gruner, Mr. Neil Matthews and Mr. Subramaniam Rangaswamy have been selected to become members of the 2022 Thermal Spray Hall of Fame by the ASM Thermal Spray Society Board of Directors.



Dr. Heiko Gruner was born in 1942 in Stuttgart, Germany and graduated with a Ph. D in applied physics from the University of Tübingen, Germany in 1972. He first joined Plasma Technik AG, Wohlen, Switzerland as General Manager VPS and was the principal developer of the technology with extensive contribution to the equipment, processes and applications. As founder and director of Medicoat AG, Dr. Gruner's specific goal was to produce coatings for implants using vacuum plasma spraying of porous titanium with hydroxyapatite (Ti/HA) as VPS provided unique advantages to coating properties and introduction. VPS-sprayed implants became the gold standard for cementless surgery allowing millions of patients to profit from longer-lasting implants.

Dr. Gruner engaged in the mid-1980s in supporting Prof. Herman's efforts at establishing the then Thermal spray division of ASM International. He participated at what was initially referred to as National Thermal Spray Conferences in US along with the international events. He supported student work and mentored young professionals in these areas. Through his company Medicoat he has been engaged as an exhibitor at the International Thermal Spray Conferences and has also participated at the conferences.

His work in Europe revolved around GTS, the German thermal spray society and SSB, the Swiss Society of Biocompatible Materials. More notably, he was engaged in promoting thermal spray to the biomedical community. These outreach activities have significant effects on the thermal spray community as a whole. Through his role as an initial organization of the Association of thermal sprayers in Germany, he touched lives of many individuals who continue to support the thermal spray community in Europe.

Dr. Gruner has over fifteen patents submitted, frequently published academic papers and has received several awards including René Wasserman Award, ITSC Hamburg/Germany 2011: "Superior Economic Results in the Field of Thermal Spraying and implemented social Responsibility Values in the Company". Fraunhofer Institute IPA-Award "Die Oberfläche 2014" for «Innovative Application of Surface Technologic (Coated Joint Replacement Implant out of Ceramic with VPS-Coatings)".

Award Citation: Heiko Gruner has contributed to sustained innovations in thermal spray through four decades of dedicated research, development, commercialization and multi-million-dollar world-wide market deployment of vacuum plasma sprayed medical implant coatings.



Mr. Neil Matthews Neil Matthews is the Senior Manager for Additive Technologies and is also Head of Design Organisation as delegated by the Australian Aviation Safety Authority Defence (DASA). He has been employed in a range of engineering and operations roles before becoming the business lead and technical advisor for Additive Technologies. Neil has an Aeronautical Engineering degree from RMIT University and a Master of Aircraft Design from Cranfield University (England). For over 50 years, he has dedicated his career to military aircraft engineering, serving as an Air Force Officer before moving into the commercial and military aviation industry.

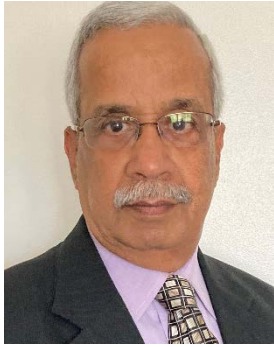
Since 2004, Neil has pioneered and revolutionised the use of Additive Technologies for component repair, in particular Supersonic Particle Deposition (SPD) and more recently Laser Additive Deposition (LAD). He has worked closely with the Australian Department of Defence, as well as Australian and international research and academic institutions such as RMIT University, Swinburne University, Monash University, and the US Army Research Laboratories to develop, certify and commercialise Additive Technology repair solutions for the restoration and enhancement of aerospace metal components and structures. Currently, over 50 components have been repaired and returned to service, with significant cost savings for customers.

His dedication and passion for all-things Additive Technology has led him to author and co-author industry-leading journal papers. Most recently, he has co-edited a book titled “Aircraft Sustainment and Repair.” He is a renowned keynote speaker and subject matter expert on Additive Technology, in Australia and abroad, having presented at the Cold Spray Action Team (CSAT) on numerous occasions, Surface Engineering for Advanced Materials (SEAM) Australian Research Council (ARC), and more. Neil holds worldwide patents for Additive Repair technology applications.

He is a respected member of leading committees and industry associations such as SEAM, RMIT University Centre of Additive Manufacture Advisory Board and is the principal industry participant in various metal additive programs such as the Defence Material Technology Centre (DMTC) and the Innovative Manufacturing Collaborative Research Centre (IMCRC).

In 2019, Neil was awarded the Defence Industry Service Commendation by the Minister of Defence Industry in recognition of his outstanding achievement and dedication in the application of skills, judgement, and innovation in the use of additive metal technologies on behalf of Australia’s defence industry and to the specific benefit of Australia’s defence capability. In 2021 was appointed by the Governor General of Australia a Member of the Order of Australia (AM) in recognition of his contribution to the aerospace industry in particular his service to aerospace component repair technologies.

Award Citation: Leadership in the adoption of advanced thermal spray manufacturing in the area of “Aerospace Component Repair Technologies” that has led to efficiency and economic outcomes.



Dr. Subramaniam Rangaswamy Born in India, Ranga completed his bachelor's degree in Metallurgical Engineering from the prestigious Indian Institute of Technology in Kharagpur before moving to the US for graduate studies. Ranga earned his MS and PhD degrees in Materials Science from SUNY at Stonybrook. At Stonybrook, Ranga was one of the 'original' students in the thermal spray program and was fortunate to be mentored by Prof. Herbert Herman, a true pioneer and inaugural ASM TSS HOF recipient. Ranga's graduate work at Stonybrook focused on "Thermal Expansion behavior of Plasma Sprayed Ceramic coatings" and "Metallurgical Characterization of Plasma Sprayed Tungsten Carbide-Cobalt Coatings".

Ranga's professional career in Thermal Spray began when he joined Metco (a division of Perkin Elmer) in 1980. Here he was responsible for the development of several patented advanced materials including Ternary TBC's, HT clad self-bonding composites, Microcrystalline alloys to name a few.

In 1988, he joined Sulzer Plasma Technik in Michigan where he led the development of a complete range of new high temperature abradable powders and coatings for gas turbine applications. It was during this time that he also won the Sulzer Corporate Innovation award for a new patented Attrition Milling Process to make binder-less composite powders.

In 1996 Ranga joined Wall Colmonoy Corporation where he was responsible for the development and management of Nickel/Cobalt base Hard facing alloys and Braze products. After returning to Sulzer Metco in 2004 until his retirement in 2018, Ranga was actively managing Oerlikon's Thermal Spray Metals and Alloys Portfolio including HT Brazing. This included Product Line Management, Customer Support, Training and growing the business. He travelled all around the world, but extensively in the Asia Pacific region visiting numerous customers for Sales, Marketing, Technical support, and Product support.

In his career, Ranga is the inventor/co-inventor of 22 US patents with numerous foreign derivatives, many of which have resulted in hugely successful products for the thermal spray industry. In addition, he has to his credit numerous published technical papers, hundreds of proprietary technical reports, participation in many seminars, lectures, and educational presentations.

Ranga was active in ASM for more than 30 years and regularly participated in Thermal Spray conferences as author, session chair, panelist, invited speaker and as visiting lecturer in international meetings.

After a distinguished career in Thermal spray and Brazing for nearly 40 years, Ranga is now enjoying retired life in Michigan. He does occasional consulting work in Thermal Spray and Braze projects.

Award Citation: For exceptional service to the TS industry through innovations in Ternary TBC's, HT Abradables, Self-Bonding Composites, Micro-crystalline alloys and unique Attrition Milled powder manufacturing processes. Also, for educating, training, and mentoring many TS professionals for nearly 40 years.