

The AVS Senior Technical Experts Program (STEP)

Trung T. Pham, Ph.D.

Chief Scientific and Technical Advisor – Artificial Intelligence – Machine Learning



Dr. Trung T. Pham is the FAA’s Chief Scientific and Technical Advisor (CSTA) for Artificial Intelligence (AI) – Machine Learning, supporting leadership in research and knowledge related to how AI & Machine Learning may be used in aviation systems, and how to evaluate integration of components based on AI & Machine Learning with aircraft software.

Dr. Pham joins the FAA with more than 35 years of software and AI experience. Before joining the FAA, Dr. Pham was at the United States Air Force Academy (USAFA) in Colorado where he worked as an academic professor, teaching in the Department of Computer & Cyber Sciences, and conducting research & development in AI & Machine Learning applications in for the US Air Force Cyberworx (Center of Innovation in Cyber Security) where he was granted the US Top Secret Security Clearance. Previously he taught Control Theory, AI, and Neural Networks at the University of Houston, and was a technical specialist and staff engineer at NASA Johnson Space Center working in the area of Automation & Robotics in the Space Station Program. He also spent a stint at the University of Talca in Chile, South America as a visiting professor and director of the Center of Research in Information Technology, teaching computer sciences, and directing two nationally sponsored R&D projects on product authentication with embedded double-encryption in RFID and data mining on the IoT authentication activities. While in Chile, he received the US State Department’s Fulbright Funding for a project on using swarm intelligence for coordinating a fleet of inexpensive drones to detect forest fire. Earlier in his career, Dr. Pham was a Process Engineer at both Seiscom Delta United, and AMF GeoSpace, doing seismic signal processing for the oil exploration in the energy sector.

Throughout his career, Dr. Pham has produced more than 50 publications, two technical books, and many technical presentations. In 2018, he was the recipient of the Best Paper Award at the ENEFA Conference in Valparaíso, Chile.

Dr. Pham is a Senior Member of the Institute of Electrical and Electronic Engineering (IEEE) and a Senior Member of the International Society of Automation (ISA). He is also an active member of the Technical Committee on Measurement in Robotics, and a Distinguished Speaker in the International Measurement Confederation (IMEKO).

Dr. Pham obtained his B.S.E.E. (Rice Endowment Scholarship, Texas Valedictorian Scholarship, and the Welsh Foundation Scholarship), M.S. (Office of Naval Research Fellowship), and Ph.D. (The National Aeronautic & Space Administration Fellowship) from the Department of Electrical & Computer Engineering at Rice University in Houston, Texas, and his M.B.A.

(McDonnell Douglas Scholarship) from the University of Houston – Clear Lake in Houston, Texas.