



Short Course on Electric VTOL Design

Monday, January 28 @ 8 am - 5 pm

Sheraton Mesa Hotel at Wrigleyville West, Mesa, Arizona, USA

\$275/pp (\$175 for VFS Student Members)

Description

In conjunction with the [8th Biennial Autonomous VTOL Technical Meeting & 6th Annual Electric VTOL Symposium](#) being held Jan. 29-31, 2019, at the Sheraton Mesa Hotel, the Vertical Flight Society is pleased to provide a new course on man-rated electric-Vertical Take-off and Landing (eVTOL) design.

This 1-day short course will provide an introduction to electric VTOL technology and design by renowned designer, Dr. James Wang, the developer of one of the world's first electric VTOL aircraft, the AgustaWestland Project Zero, which first flew in 2011.

This course will provide an overview of the unique design challenges and opportunities of this new class of vehicles. Both electric and hybrid-electric passenger-carrying vertical flight aircraft will be covered for a variety of missions ranging from personal/private use to urban air taxis to regional electric VTOL bizjets.

Students will be given insights from industry experts on developing eVTOL aircraft from the beginning to the end of the project: from how to conduct a conceptual study, preliminary design and detail design, to finding partners, manufacturing, assembling, bench testing to flight testing. The course will also cover the state of the art in several technology areas, such as batteries and motors.

Who should take the course

Aerospace engineers interested in understanding the opportunities and constraints of designing VTOL aircraft using electric power. Electrical / Mechanical engineers interested in better understanding VTOL aircraft design.

About the Instructor

Dr. James Wang has held several executive leadership positions, and has more than 30 years of experience in aerospace, helicopters, defense and high-tech industries. He currently offers private consulting services in aerospace technology strategy, marketing & business strategy, and engineering advising. He is also an expert in helicopter and eVTOL aircraft design.

He received his bachelor degrees in Aeronautical Engineering and in Electrical Engineering from M.I.T., and a Master degree and a PhD in Aerospace Engineering from the University of Maryland. After completing his PhD, Dr. Wang started his career at Sikorsky Aircraft, where he was known as one of the most energetic and prolific engineers and managers; he contributed greatly to the Comanche, Black Hawk, S-92 and the Variable Diameter Tiltrotor programs.

Dr. Wang has the rare talent to combine technical knowledge with business thinking, and bringing people to collaborate to achieve a common goal. At Sikorsky Aircraft, Dr. Wang transitioned to leading strategic business campaigns. His commitment and astute leadership led to the successful winning of two of the largest international helicopter sales contracts in history, each worth over one billion dollars. Dr. Wang has a Master degree from the M.I.T. Sloan Business School, and an Executive Business Training Diploma from the London Imperial College Business School.

In 2007, Dr. Wang joined AgustaWestland as the Vice President of Research & Development, reporting directly to the CEO. Dr. Wang created a comprehensive technology roadmap and initiated many pioneering research. He established three University Research Centers in Europe and one Think Tank in Japan. In 2015, Dr. Wang was promoted to become the Senior Vice President of Marketing, responsible for the global marketing strategy of all AgustaWestland helicopter products at Leonardo Helicopters. He served 7 years as a board member on the EU-sponsored 2 billion Euros CleanSky programs.

Dr. Wang was invited to teach courses and give lectures in US, Europe, Australia and Asia, and he has written over 40 technical papers. He holds five patents and major international awards, including Fellow of the Royal Aeronautical Society, UTC Gold Mead Award, AHS Fellow, AHS Grover Bell Award, M.I.T. Luis de Florez Award, NASA Research Award, Italian National Innovation Grand Prize, and the Royal Aeronautical Society Gold Team Award. In 2013, WIRED Magazine named Dr. Wang “the Steve Jobs of Rotorcraft” for his ability to think “outside the box” and pushing the transportation technology boundaries by inventing and designing the AgustaWestland Project Zero, the world’s first all-electric VTOL technology demonstrator aircraft.

Additional Information

Registration: This course is being held in conjunction with the Autonomous VTOL conference and eVTOL Symposium. Additional information and registration for either or both events can be found at <https://vtol.org/autonomous>. Note that there is also a short course on eVTOL Aeromechanics & Acoustic Prediction Software on Thu, Jan 31 @ 1 pm - 5 pm and Fri, Feb 1 @ 8 am - 5 pm.

Hotel: The meeting is being held at the beautiful [Sheraton Mesa Hotel at Wrigleyville West in Mesa](#) with discounted rates available to attendees. Please support the event and stay at the conference hotel! **You must book by Jan. 14** and use this link to get the special event rate: <https://www.starwoodmeeting.com/events/start.action?id=1808177595&key=1E97A7A8>