

COLLOQUIUM SERIES EVENT



Dr. Michael Winter

*Senior Fellow, Advanced Technology
Pratt & Whitney
A United Technologies Corporation*

WEDNESDAY, APRIL 26, 2017

**5PM-6PM | Davis Auditorium, 412 CEPSR
530 West 120th Street, New York, NY 10027**

LIGHT FARE AVAILABLE | OPEN TO THE PUBLIC | REGISTRATION NOT REQUIRED

SYSTEMS ENGINEERING: IMPERATIVES, DEFINITIONS, TECHNOLOGY & TALENT

ABSTRACT:

The lecture will present the motivation, mechanics, and methodologies of model-based systems engineering as applied to product platforms and infrastructures that are often safety or operationally critical. Cyber-physical system-of-systems that combine both physics and controls form the basis of modern society. Application of systems engineering principles in an analytic context with focus on requirements, architecture, model-based development, and design flows will be presented as applied in an industrial context.

Dr. Michael Winter is a seasoned corporate leader who has held numerous responsibilities running technical and multi-national organizations. His current position is Senior Fellow for Advanced Technology at Pratt & Whitney. He is responsible for development and maturation of the Company's technology portfolio, including identification and prioritization of technologies, establishing intellectual property basis, technology licensing, and technology partnership programs. Most recently he served as Director of Systems & Controls Engineering (SCE) at United Technologies Corporation, a world-wide corporation supplying a broad range of high-technology products and services to the fast-growing aerospace and building industries. He led the SCE organization and initiative to provide UTC's business units with the competency, capacity and tools needed to deliver the complex cyber-physical systems that are the core of UTC products.

In more than 25 years with UTC, Dr. Winter has made contributions working with fuel cells, lasers, and combustion & propulsion systems. Previously, Dr. Winter was Chief Engineer for Technology at Pratt & Whitney, responsible for the Company's technology portfolio. He also was responsible for development of the Pratt & Whitney Technical Career Ladder and for leading the Fellows Program, which recognizes the company's top technical experts. Earlier, he served at United Technologies Research Center as Director of the Flight Systems Program, with responsibility for advanced technology for Hamilton Sundstrand and Sikorsky Aircraft.

Dr. Winter holds Doctor of Philosophy, Master of Science and Master of Philosophy degrees from Yale University and a Bachelor of Science degree in Mechanical Engineering from Drexel University. He is the author of more than 30 patents and more than 50 published technical articles.

Dr. Winter is on the advisory board of the Engineering Schools at Embry Riddle Aeronautical University and is an adjunct full professor in Systems Engineering at Columbia University. He has served on the National Research Council Board of Assessment of the National Academies, on several committees of the American Institute of Aeronautics & Astronautics (AIAA), and as chairman of the Aerospace Industry Association (AIA) Technical Operations Council.

