

Neil Siegel

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Neil Siegel is the IBM Professor of Engineering Management in the Epstein Department of Industrial and Systems Engineering within the Viterbi School of Engineering at the University of Southern California. He is a recognized expert in the design and development of large, complex systems that serve important societal needs, both as a practitioner at the largest scales, and as a researcher.

Until the end of 2015, he held the position of sector vice-president and chief technology officer at Northrop Grumman. He led the sector's technology activities, provided oversight of the sector's research portfolio (\$600M / year), and oversaw the design and development of solutions for their customers' most-complex and most-important problems. Prior to that role, Dr. Siegel was the sector's vice-president and chief engineer, where he oversaw the sector's 12,000-plus scientists and engineers, directed engineering process improvements, and led activities intended to further the development of the company's top technical talent.

Previously, Dr. Siegel served as vice-president and chief technology officer of Northrop Grumman's Mission Systems sector, and before that, vice-president and general manager of the company's Tactical Systems division. He has been responsible for several engineering projects outside of the United States, including work in the U.K., NATO, Saudi Arabia, and other countries. He served as a vice-president of the company for nearly 18 years.

Dr. Siegel led the engineering on a large number of successful fielded military, intelligence, and commercial systems, including the U.S. Blue-Force Tracker; the Army's first unmanned aerial vehicle; the Forward-Area Air Defense system; the fire-control segment of the world's first complete laser weapon system; and played important roles for many other systems for ground, sea, and space. These systems have repeatedly been cited as model programs and important national capabilities. He also led work for the steel industry, the movie industry, the healthcare industry, and the electric power industry. He invented concepts that are used in a very large number of consumer devices around the world (including GPS receivers, smart phones, and tablet computers), and concepts used every day to save lives in the healthcare industry. He holds nearly 50 issued and pending patents worldwide. His expertise is recognized by the U.S. Government, as indicated by past membership on the Defense Science Board, current membership on the Army Science Board, and other senior government advisory panels. He is also in demand as a speaker for both academic and conference settings.

He is certified by the International Congress on Systems Engineering (INCOSE) as an expert systems engineering practitioner (ESEP; their highest level of certification), and also a certified "black-belt" practitioner in the well-known 6-sigma process-optimization methodology.

Dr. Siegel has a doctorate in systems engineering from the University of Southern California. His advisor there was noted computer scientist & systems engineer Barry Boehm.

His many honors include:

- Election to the U.S. National Academy of Engineering
- Selection as a fellow of the U.S. National Academy of Inventors
- Selection as a fellow of the Institute of Electrical and Electronics Engineers
- The IEEE Simon Ramo Medal for systems engineering and systems science
- His former company's Chairman's Award for Innovation (three times)
- The Army's Order of Saint Barbara
- The iCMG award for system architecture
- The Northern Virginia Technology Council CTO-of-the-year award

Recent publications include a textbook on engineering project management (Wiley), and a chapter in a book on ethics in engineering (Cambridge University Press). Public service includes board positions for two charitable organizations (including the largest non-profile hospice in California), 10 years as an elected public official (California Hazard Abatement District board), membership on the board of directors for the Electric Infrastructure Security Council, and former membership on the research foundation of the State University of New York, as well as many other items.