

Gavin Arthurs is a Sr. Applications Engineer at Telelogic and has over 8 years of industry experience in model-driven development of complex systems with SysML and UML. Gavin teaches and consults in model-driven development techniques and processes to major aerospace companies such as Boeing, Northrop, Lockheed Martin, Rockwell Collins, General Dynamics and Raytheon.



Dr. Cihan H Dagli is a Professor of Systems Engineering, Computer Engineering and Engineering Management at the University of Missouri-Rolla. He is the founder and the director of the System Engineering graduate program. He contributes to INCOSE NCO Net-Centric Operations Working group. He received BS and MS degrees in Industrial Engineering from the Middle East Technical University and a Ph.D. from The University of Birmingham, United Kingdom, where from 1976 to 1979 he was a British Council Fellow. His research interests are Systems Architecting and Engineering, System of Systems,

Smart Engineering System Design, Computational Intelligence: Neural Networks-Fuzzy Logic-Evolutionary Programming.

He has published more than 290 papers in refereed journals and proceedings, 18 edited books and was a Principal or Co-Principal Investigator of research grants of approximately \$ 3 million. He has consulted with various companies and international organizations including [The Boeing Company](#), [AT&T](#), [John Deere](#), [Motorola](#), [U.S. Army](#), [UNIDO](#), and [OECD](#).

He is the founder of the Artificial Neural Networks in Engineering ([ANNIE](#)) conference being held in St. Louis, Missouri since 1991. He provided the conduit to the dissemination of neural networks applications in engineering and decision making through these conferences for the last seventeen years. He is the Area editor for Intelligent Systems of the International Journal of General Systems, published by Taylor and Francis, and Informa Inc.



John Groenenboom of The Boeing Company is the Mesa Chief Engineer and Director of Rotorcraft Systems Engineering which spans Product Integrity, Ops Analysis, Process Improvement and Mission Assurance. The Rotorcraft Division supports man and unmanned platforms for USA/USAF/USN/USMC and is actively involved in technology development to enhance our customer capabilities. Mesa programs include Apache, Future Combat Systems, Advanced Rotorcraft Systems and Support Systems. Additionally, they support antenna and wiring systems for other Boeing programs.



Mark R. Hall is Raytheon Missile Systems' Chief Systems Architect and the Manager of the Systems Architecture Department. He is responsible for developing and applying architectures using quantitative analyses, models, simulations, and visual operational concepts. Hall leads, develops, coordinates and directs a set of modular product architectures and their associated governance. He works with all Raytheon businesses, enterprise campaigns and technology areas to ensure systems architecture continuity across the company. Previously, Hall was a senior mission solutions manager for Precision

Engagement.

Before joining Raytheon in 2004, Hall served in the U.S. Air Force for 20 years in several key operational and acquisition positions. Most recently, he worked as the director of Engineering and as the chief technology officer for the Combined Air and Space Operations Center's weapon system program.

Under Hall's leadership, new information technology was integrated with legacy systems. He developed a single war-fighting command and control system in Saudi Arabia and Qatar during Operations Enduring Freedom and Iraqi Freedom. Hall's previous assignments included service for NATO as deputy director of systems engineering for the Airborne Early Warning System. He also was the chief software architect for the Air Force's airborne laser, and he held numerous operational positions in joint service and in space communications and information systems.

Hall is a distinguished graduate of the University of Maine, where he obtained a bachelor's degree in computer science. He holds master's degrees in information systems from the University of Arizona and in business administration from Webster University.



K. Larry Head, Ph.D. is currently the Department Head and an Associate Professor of Systems and Industrial Engineering at The University of Arizona. He received his Ph.D. in Systems and Industrial Engineering from the University of Arizona in 1989. He re-joined the university in October 2003 after six (6) years in industry where he was a Senior Vice President and Director of Research and Development at a business unit of Siemens ITS.

He supervised the development of traffic management system software and advanced traffic signal controller (ATC) firmware as well as a variety of research and development projects. From 1992 to 1996, he was an Assistant Professor of Systems and Industrial Engineering at The University of Arizona.

He is the Chair of the Transportation Research Boards Traffic Signal Systems Committee (AHB25), and a member of INCOSE, INFORMS, IEEE, IIE and ITE.



Carl Landrum is the Engineering Leader for Maintenance Systems, On and Off Board for Honeywell Aerospace. In this role, Carl is responsible for system requirements, integration, analysis and embedded applications software and prognostic/diagnostic technology, tools and process development in support of Honeywell's Aerospace products.

Carl joined the company in 1978 and has served in a number of engineering management positions over a broad range of avionics, engines and installations, including industrial, military, and commercial products. Prior to his current position, he managed the Systems Engineering department for propulsion engines and was responsible for Reliability, Maintainability and System Safety, Embedded Application Software as well as Systems Analysis and product development/field support for all of the engine enterprises. Prior to that, Carl led the Integrated Control Systems operation, Turbomachinery controls design for the J/IST Demonstrator program which was the successful predecessor of the JSF (Joint Strike Fighter), Engineering COE for hardware and services and led the successful qualification effort for the TFE1042 controls system.

Carl holds a Bachelor's degree in Electrical Engineering from Northeastern University, a Masters degree in Engineering Management (Computer Systems Major) from Northeastern University and a Masters in Business Administration from Arizona State University.

Carl is a member of INCOSE (International Council on Systems Engineering) and serves as Honeywell's representative on their Corporate Advisory Board. He is also the incoming chair of Specialty Engineering, a Systems Engineering Enabler.



Paula Obeid is President of EmbeddedPlus Engineering and focuses on strategic roadmap, operations and business development for the company. She has over 15 years experience in systems and software development, process improvement and business leadership. Paula is a certified Six Sigma expert. Paula's leadership at EmbeddedPlus has enabled the company to be a key contributor in the development of the SysML specification and brought to market a SysML solution for the IBM Rational Platform.

Prior to EmbeddedPlus, Paula was the Process Group Lead in the Aerospace Division of Honeywell. While at Honeywell, she helped develop and deploy Six Sigma to System and Software Engineers and develop a CMMI deployment strategy for the organization. Paula was also the Honeywell representative on industry organizations like SAE, helping to create standards for deliverable software and software quality. While at Honeywell, she led a corporate initiative to standardize on a Model Driven Architecture utilizing Mathlab/Simulink for Systems Engineering Processes.



Dr. Stan Settles holds the IBM Chair in Engineering Management, is the Director of the Systems Architecture and Engineering Program, Co-director of the Center for Systems and Software Engineering, Director of the Engineering Management Program, and former Chair of the Daniel J. Epstein Department of Industrial and Systems Engineering at the University of Southern California. His research and teaching interests are in the areas of quality management, engineering project management, and manufacturing systems engineering.

Prior to his USC roles, he served as Program Director for Design and Integration Engineering at the National Science Foundation. Dr. Settles was on loan to the NSF from Arizona State University in Tempe, where he was a Research Professor in the Department of Industrial and Management Systems Engineering. In 1992 and 1993, he served as Assistant Director for Industrial Technology in the White House Office of Science and Technology Policy.

Dr. Settles had a 30-year career with AlliedSignal Aerospace (now Honeywell), primarily in Phoenix, Arizona. He held a number of positions in design and project engineering, manufacturing, and general management. His titles included: Manager of Industrial and Manufacturing Engineering,

Division Director of Planning, Division Vice-president of Manufacturing Operations, and Corporate Director of Industrial and Manufacturing Engineering.

Dr. Settles taught as an adjunct faculty member at Arizona State University in 22 different semesters from 1966 through 1991.

Dr. Settles is a fellow and past president of the Institute of Industrial Engineers, a fellow of the Institute for Operations Research and Management Science, a member of the American Society for Engineering Education, the IEEE/Engineering Management Society/Systems Man & Cybernetics, and the International Council on Systems Engineering.

Dr. Settles was honored by election to the National Academy of Engineering in 1991. He is listed in a number of biographical references, including Who's Who in America. Dr. Settles served as the chair of the National Research Council's Board on Manufacturing and Engineering Design. He now serves on the committee that oversees the Division of Engineering and Physical Sciences of the National Academies. The USC School of Engineering honored him with its Faculty Service Award for 2001 his contributions to many aspects of society.

He earned his M.S.E. and Ph.D. in industrial engineering from Arizona State University. He holds B.S. degrees in both industrial engineering and production technology from LeTourneau University. Stan and Evelyn have been married for 45 years and enjoy their four sons and eight grandchildren.



Ricardo Valerdi, Ph.D., is a Research Associate in the [Lean Aerospace Initiative](#) and a Lecturer in the [Engineering Systems Division](#) at [Massachusetts Institute of Technology](#). He is also the co-founder of the [Systems Engineering Advancement Research Initiative](#) (SEARI) which was launched in 2007.

He received his B.S./B.A. in Electrical Engineering from the [University of San Diego](#) in 1999, and his M.S. and Ph.D. degrees in Systems Architecting and Engineering from [USC](#) in 2002 and 2005. Between 1999 and 2002, he worked as a systems engineer at [Motorola](#) where he was responsible for the design and implementation of mission critical public safety communications systems for

clients such as the Los Angeles Police Department, Orange County Sheriff, and San Diego Police Department. He has been affiliated with the [Aerospace Corporation's](#) Economic and Market Analysis Center as a Member of the Technical Staff since 2003 where he supports cost analysis of programs for the Air Force's Space and Missile Systems Center at the Los Angeles Air Force Base.

His current research interests include systems engineering cost estimation, system level metrics and models, dynamics in large-scale government system acquisition, and system-of-systems ontologies.

His contributions to the field include the Constructive Systems Engineering Cost Model ([COSYSMO](#)),

a model for estimating systems engineering effort, which has been calibrated with data provided by BAE Systems, Boeing, General Dynamics, L-3 Communications, Lockheed Martin, Northrop Grumman, Raytheon, and SAIC.

He is the author of over 45 technical publications that have appeared in IEEE, AIAA, and INCOSE conferences. His work has appeared in several journals, including [*Journal of Systems Engineering*](#), [*Journal of Systems and Software*](#), and [*CrossTalk - The Journal of Defense Software Engineering*](#). He has also served as a reviewer for *IEEE Transactions on Engineering Management* and *IEEE Software*. He served as Program Chair of the 20th Forum on COCOMO and Software Cost Modeling and is involved with [INCOSE](#) in the Measurement Working Group, the Systems Engineering & Architecting Doctoral Student Network, and since 2007 serves on the Board of Directors as Associate Director for International Growth. He is a Visiting Associate at the [Center for Systems & Software Engineering](#) at USC.