

Sandia National Laboratories Overview: Integrated Military Systems

Please join us for a Sandia National Laboratories Information Session

Presented by: Dr. Scott Kowalchuk and Dr. Hartono (Anton) Sumali

Time: Thursday, February 23rd from 11:00 am to noon

Location: GTMI Auditorium

Abstract:

Sandia National Laboratories is the nation's pioneer in Hypersonic boost glide flight vehicle systems and has been pivotal in the nation's advancements in this domain over the past four decades. In addition to programs being fielded today, Sandia maintains a wide research portfolio on technologies to benefit future hypersonic systems. Our advanced technologies focus is twofold: new (higher TRL) technologies to support current programs and next generation technologies (lower TRL) beyond planned program of record activities. Today's multiple programs support the joint Army/Navy common hypersonic glide body program as well as multiple target vehicles for the Missile Defense Agency. Sandia is growing the next generation technologies or "Pathfinder Technologies" for Hypersonic flight vehicles. With expertise in Navigation, Guidance, Control, Systems Engineering, Flight Testing, Mission Planning, Autonomous Sensing, Perception, Thermal Protection Systems, Synthetic Aperture Radar, Automated Target Recognition, Aerodynamics as well as all manner of Modeling and Simulation, Sandia is maturing seedling research into technologies ready for program insertion, thereby increasing the capabilities of the United States Hypersonic weapons arsenal.

Dr. Scott Kowalchuk Bio:

Dr. Scott Kowalchuk is the R&D Science and Engineering Manager of the Navigation, Guidance, and Control II Department. The Department envision, prototype, and demonstrate research and development (R&D) of Navigation Guidance & Control (NG&C) technologies for missiles and hypersonic reentry platforms to advance military systems capabilities for defensive system applications. Scott received his B.S. in 2002 and M.S. in 2004 in Aerospace Engineering from the University of Kansas. He received his Ph.D. in 2007 in Aerospace Engineering from Virginia Polytechnic Institute and State University. Scott joined Analytical Mechanics Associates as a Senior Project Engineer in 2007. In 2009 Scott joined Sandia National Laboratories as a R&D Science and Engineering Aeronautical Engineer and has been a R&D Science and Engineering Manager since 2017. Scott is a member of the Institute of Navigation (ION), member of the Institute of Electrical and Electronics Engineers (IEEE), and Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA). Dr. Kowalchuk is the Vice Chair of the AIAA Modeling and Simulation Technical Committee.

Dr. Anton Sumali Bio:

Dr. Hartono (Anton) Sumali manages the Autonomous Sensing And Controls Department at Sandia National Laboratories in Albuquerque, New Mexico, USA. He received his PhD in Mechanical Engineering in 1997 from Virginia Polytechnic Institute and State University in Blacksburg, Virginia, USA. From 1997 to 2002 he was an Assistant Professor at Purdue University in West Lafayette, Indiana, USA. He has authored or co-authored over 100 technical publications, mostly in MEMS and structural dynamics.



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