



Gordon Roesler, Ph.D.
Director- Space Robotics

Dr. Roesler is a scientist, team-builder, technology manager and innovator who has specialized in creating change in engineered systems through innovative research programs. He has conceived, initiated and managed numerous programs involving extreme performance in challenging environments, including space systems, robotic naval vehicles, and sensor systems. Key technology leadership accomplishments include DARPA's space robotic servicing vehicle, an automated design approach for space architectures, ocean energy concepts, acoustics, and marine systems. His work has been featured in widely read journals and has influenced major defense programs. He is a recipient of numerous civilian and military awards.

Education

Ph.D. in Physics, Massachusetts Institute of Technology, 1992

Concentration: electronic properties of metals at cryogenic temperatures in high magnetic fields

Thesis title: "Transport and tunneling measurements in thin films of heavy fermion compounds and related systems"

B.S. in Physics, U.S. Naval Academy, 1975

Trident Scholar Report title: "The angular response of a cosmic-ray muon detector and the zenith angle distribution of stopping cosmic-ray muons at sea level"

Professional experience

President, Robots in Space LLC – May 2018 to present

Advocacy and team-building for advanced space missions and architectures. Steering committee, NASA In-Space Assembled Telescope (iSAT) study. Co-Author, Commercial Lunar Propellant Architecture (CLPA). Widely published in aerospace society magazines.

Program Manager, Defense Advanced Research Projects Agency – May 2014 to May 2018

Conceived, initiated and manage the Robotic Servicing of Geosynchronous Satellites (RSGS) program. Provide technical leadership to a group of over 200 government and industry engineers working to develop the world's first on-orbit servicing capability. Conducted extensive interactions with the US aerospace industry to create a public-private partnership with joint contributions and technical cooperation. Extensive and continuing briefings provided to members of Congress, senior Pentagon officials, and flag and general officers. Frequent public presentations provided to varied audiences from non-specialists to senior aerospace engineers. Responsible to the Director, DARPA for all aspects of technical, programmatic and fiscal performance.

President, Extreme Physics LLC – June 2013 to May 2014

Independent consultant to defense and industry in the applied physical sciences. Chair of review panel for the DARPA Phoenix program, which recommended that DARPA undertake a restructured and enhanced program in space robotics. Consultant on an industrial small satellite initiative.

Senior Project Engineer, Australia Centre for Space Engineering Research—July 2012 to June 2013

Responsible for management, systems engineering, and technical coordination of a multi-organization spacecraft design program. Responsible to the Centre Director, in the faculty of engineering of the University of New South Wales. Specific responsibilities include: implementation of systems engineering best practices; establishment of