

Wireless, Aerospace & Satellite Communications

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Mesh Networking

We discuss the NC3 Networking Experimentation Modules for studying Trans/Post Resilient Mesh Networking solutions. They represent a set of hands-on field experiments focused on integration and operation of Trans/Post Resilient Mesh Networks(TP-RES MESH). The TP-RES MESH will utilize maritime-land self-forming mesh networking enclaves, R/N sensors, cubesats, rapidly deployed stratospheric aerial nodes, and links to partner agency/nation assets. Geographically, the experimentation area will span from places like Offutt, Barksdale, or Hanscom, to the assisting sites in SF Bay and Camp Roberts. The series of TP-RES MESH experiments, conducted by students quarterly, will serve as field laboratories to support the TR-RES MESH NOC class and related NC3 certificate studies.

Biography

Alex Bordetsky is tenured Professor of Information Sciences at the Naval Postgraduate School. He also holds dual appointment with the Space Systems Academic Group at NPS. Professor Bordetsky is Director of the NPS Center for Network Innovation and Experimentation (GENETIX). He is a recipient of prestigious Robert W. Hamming Interdisciplinary Research Award for the pioneering studies of collaborative technologies and adaptive networking and the Fulbright Senior Fellowship Award for the experimental studies of unconventional maritime networking. Dr. Bordetsky is the Principal Investigator for the renowned TNT MIO Military-Academic Experimentation Campaign, which is now in transformation to Littoral and Maritime-Land CWMD operations study. His research accomplishments are featured in the AFCEA SIGNAL Magazine, Via Sat, USSOCOM Tip of the Spear Journal, Pentagon Channel, and Fulbright Newsletter.

Dr. Bordetsky publishes in major IS journals including Information Systems Research, Telecommunication Systems Modeling and Analysis, International Journal of Mobile Wireless Communications, and International Command and Control Research Journal.

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