



NEEDS

New Era Electronic Devices and Systems
needs.nanoHUB.org

PURDUE UNIVERSITY
Discovery Park

Creating Inflections: DARPA's Electronics Resurgence Initiative

Dr. William Chappell
Director, Microsystems Technology Office (MTO)

9:30 AM, Wednesday, December 5, 2018
Purdue Graduate Student Center (PGSC), Room 105
(Northwestern Parking Garage)

Dr. William Chappell has served as director of the Microsystems Technology Office (MTO) since 2014 where he has focused the office on ensuring unfettered use of the electromagnetic spectrum, building an alternative business model for acquiring advanced DoD electronics that features built-in trust, and developing circuit architectures for next-generation machine learning. MTO creates the MEMS, photonic, and electronic components needed to gracefully bridge the divide between the physical world in which we live and the digital realm where our information resides. Under Dr. Chappell's leadership, MTO is striving to develop the basic underpinnings of computation and sensing needed for an effective, information-driven military. As our daily activities rely more and more on the digital realm, these technologies will also impact society as a whole.

Prior to his role as MTO director, Dr. Chappell managed DARPA programs on adaptable radio frequency (RF) systems and low-cost antenna array technologies to provide the DoD with unperturbed access to the electromagnetic (EM) spectrum while enhancing society's ability to connect by way of the same EM resource. Before joining DARPA, Dr. Chappell was a professor in the School of Electrical and Computer Engineering at Purdue University, where he led the Integrated Design of Electromagnetically-Applied Systems (IDEAS) Laboratory. Dr. Chappell's research focused on high-frequency components, specifically the unique integration of RF and microwave components based on electromagnetic analysis.

