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Jeffrey Nanzer receives prestigious DARPA Young Faculty Award

Jeffrey Nanzer, the Dennis P. Nyquist assistant professor in Michigan State University’s Department of Electrical and Computer Engineering, is the recipient of a prestigious 2017 Young Faculty Award (YFA) from the Defense Advanced Research Projects Agency (DARPA).

The objective of the YFA program is to identify and engage rising research stars in junior faculty positions at U.S. academic institutions, with the long-term goal of developing the next generation of academic scientists, engineers and mathematicians to focus a significant portion of their career on Department of Defense and national security issues.

Nanzer will use the two-year, $400,000 award to create technologies enabling separate, small wireless systems to collaborate as a single system.

“By wirelessly combining the operations of multiple systems into a coherent distributed array, dramatic improvements in capability can be gained in radar, remote sensing, and communications applications,” Nanzer said. “Rather than redesigning new and larger systems when performance increases are needed, small and cheap nodes can simply be added to the distributed system, reducing cost and development time.

“The aim is to develop methods for precise coordination between multiple nodes and explore the new capabilities enabled by coherent distributed arrays,” he added.

“Jeffrey is an excellent example of the new faculty members we have attracted to MSU and the Department of
Electrical and Computer Engineering,” said John Papapolymerou, MSU Foundation Professor and chair of the Department of Electrical and Computer Engineering. “His groundbreaking work in the area of coherent distributed arrays will revolutionize future radar, communication and sensing systems and offer significant advantages for defense and security applications. This is a well-deserved honor for Jeffrey.”

Nanzer joined MSU as a faculty member in 2016. He received a bachelor’s degree in electrical engineering and a bachelor’s degree in computer engineering from Michigan State in 2003, and also received a master’s degree in 2005 and PhD in 2008 in electrical engineering from the University of Texas at Austin.

In 2008-09, he was with the University of Texas Applied Research Laboratories in Austin as a postdoctoral fellow designing electrically small HF antennas and communications systems. From 2009 to 2016, he was with the Johns Hopkins University Applied Physics Laboratory where he created and led the Advanced Microwave and Millimeter-Wave Technology Section.


Nanzer is the chair of the IEEE Microwave Theory and Techniques Society Microwave Systems Technical Committee, a member of the IEEE Antennas and Propagation Standards Committee, and a member of USNC/URSI Commission B.

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