Abhishek Dey receives IEEE Antennas and Propagation Society (APS) PhD Fellowship Award

Abhishek Dey, a PhD candidate in the Department of Electrical Engineering and the Center of Wireless and Microwave Information Systems (WAMI) has been selected to receive an IEEE Antennas and Propagation Society (APS) PhD Fellowship award. He is advised by Gokhan Mumcu, associate professor in the Department of Electrical Engineering.

Each year, IEEE APS awards up to ten $2,500 fellowships to encourage students to pursue a career in area of electromagnetics. This competition is announced in the IEEE APS magazine, APS webpage, and open to the graduate students across the world. Students are evaluated based on the creativity and quality of their research proposals, discussion of their technical interests, skills, publication tracks, and the recommendation letters they receive from their advisors.

Abhishek’s research proposal focused on the design, construction, and evaluation of a novel high-resolution microwave imaging system that will be based on sub-wavelength resonators interrogated with microfluidic reconfiguration techniques. The envisioned microfluidic based interrogation (i.e. read-out) mechanism is expected to provide a significant cost advantage in construction of high resolution arrays by removing the need for active RF control components such as switches. The system will also offer a higher speed and repeatability advantage over a conventional imaging system that utilizes mechanical raster scanning of a single pixel over the imaging area. The IEEE APS Education Committee commended Abhishek for his high-quality proposal.

Since joining USF in 2011, Abhishek Dey has performed research on biosensors, radio-frequency (RF) devices and antennas using novel materials and microfluidic reconfiguration techniques. His current publication track consists of 8 journal papers and 5 conference papers that appeared on flagship journals and conferences of their related research areas. In addition to the IEEE APS PhD fellowship, he received 2014 student research award from Florida High Tech Corridor Council, 2013 USF College of Engineering Research week poster award, student paper finalist (top 15 out of 144 student papers) in 2013 IEEE APS Symposium, and 2011 USF Provost PhD Fellowship. He was with Qorvo, FL in summer 2015 as an acoustic filter design intern. He is currently with Qorvo, FL as a senior acoustic filter design engineer.