RISE Talks Series

Who?	Rebecca Mercuri, Ph.D., Visiting Assistant Professor of Computer Science in Cybersecurity, Drew University
What?	Uses and Misuses of Software Defined Radio: Past, Present & Future
When?	12:00 – 1:00PM on Wednesday, April 11, 2018.
Where?	Hall of Sciences, Room 326

Radio Frequency (RF) signals are all around us! A few years ago it was discovered that an inexpensive digital USB TV tuner can provide the RF signals and digital building blocks to build Software Defined Radios (SDR), leading to an amazing number of applications that experimenters and entrepreneurs have developed. This talk by Rebecca Mercuri will begin with an overview of stealth (and legal!) radio frequency monitoring, beginning with the NSA's TEMPEST project from the 1960s. She will explain how the TV tuner SDRs and some of the more expensive monitoring devices (such as airSPY and HackRF) work. Rebecca will give a general overview of software applications and experimentation resources, and also a quick tutorial on how to set up and get started with your own SDR system.

SPECIAL NOTE: A limited number of RTL-SDR USB tuner kits will be available for purchase at this meeting. The cost is $35.00, payable at the time of pick-up. Please email Rebecca Mercuri at rmercuri@drew.edu if you would like to reserve a kit.

Rebecca Mercuri, Ph.D. is a Visiting Assistant Professor in Cybersecurity with Drew University's Computer Science Department. She is also the founder of Notable Software, Inc., which provides digital investigative services and testimony for a broad range of legal matters. Rebecca has held an FCC amateur ("Ham") radio license (call sign KA3IAX) since the 1980's, and has made extraterrestrial contacts (such as with the International Space Station). She is occasionally deployed for emergency communications service, including for the Red Cross (during 9/11 and SuperStorm Sandy) and SKYWARN operations for NOAA, and has received commendations for this work.