



#### FEATURING

#### **Asimina Kiourti**

Associate Professor  
Electrical and Computer Eng.  
The Ohio State University

**Tuesday, October 4, 2022**

**12:00 p.m. to 1:00 p.m. EDT**

**Location: TSRB 118 Auditorium**

***Pizza & Soda Available Post Seminar***

**Abstract:** Rapid advances in bio-electromagnetics are opening new and unexplored opportunities in body area sensing, empowering the vision of round-the-clock monitoring “in the wild”. This talk will discuss next-generation wearables and implants that outperform the state-of-the-art in terms of seamless-ness, capabilities, and performance. Focus will be on research efforts carried out in our group towards: a) functionalized garments that monitor body motion in real-world settings, b) sensors that capture the naturally emanated magnetic fields by the human body, and c) batteryless implants

for deep-brain sensing. Enabling technologies suitable for diverse clinical applications will also be discussed, including embroidered e-textiles and into-body radiating antennas. In addition to research advances, the abovementioned efforts at the intersection of engineering and medicine provide a unique platform for outreach and education activities. The talk will conclude with examples in these directions, including a grass-roots TechnoFashion program for middle-school girls and a new Bioelectromagnetics class.

***“Next-generation wearables and implants that outperform”***

**Biography:** **Asimina Kiourti** is an Innovation Scholar Endowed Associate Professor of ECE at The Ohio State University where she first joined as a faculty member in 2016. From 2013 to 2016, she was a Post-Doctoral Researcher and then a Senior Research Associate at Ohio State’s ElectroScience Laboratory. Prior to that, she received the Ph.D. degree in Electrical and Computer Engineering from the National Technical University of Athens, Greece (2013) and the M.Sc. degree from University College London, UK (2009). Prof. Kiourti’s research interests lie in bio-electromagnetics, wearable & implantable antennas, sensors for body area applications, and e-textiles. Her publication record includes 1 book, 12 book chapters, 6 granted patents, 75 journal papers, and over 130 conference papers and abstracts. Her work has been supported by NSF, NIH, NASA, DoD, & more, and has been recognized with over 40 scholarly recognitions, including the OSU Early Career Distinguished Scholar Award (2022), NSF CAREER award (2021), selected participation in the National Academy of Engineering (NAE) US Frontiers of Engineering Symposium (2021), “40 Under 40” recognition by Columbus Business First (2021), Buckeye Leadership in Innovation Award (2021), Lumley Research Award (2020), & URSI Young Scientist Award (2018). Her mentees have received another 40 awards at an international, national, & local level. Her research contributions have been featured by TechCrunch, the Times of India, & Australia Network News, among others. Prof. Kiourti is active in USNC-URSI, IEEE, & NAE, where she serves in several elected & appointed roles, including: Chair of USNC-URSI Commission K, Founding Member of the USNC-URSI Women in Radio Science Chapter, elected member of the IEEE Antennas & Propagation Society Meetings Committee and the Young Professionals Committee, and co-organizer of the 2022 NAE China-America Frontiers of Engineering Symposium. She is the Senior Editor of the IEEE Open Journal of Antennas and Propagation, Editor of the IEEE Antennas and Propagation Magazine “Bioelectromagnetics” column, and Associate Editor for three IEEE journals.