

Speaker: Dr. Yunyun Wu

Assistant professor, Dalhousie University

Bio: Dr. Yunyun Wu is an Assistant Professor in the Department of Biomaterials & Applied Oral Sciences, with a cross-appointment in the School of Biomedical Engineering at Dalhousie University. She received her bachelor's degree in Solid-State Electronic Engineering from the University of Electronic Science and Technology of China and her Ph.D. in Chemistry from the University of Windsor. Before joining Dalhousie, she was a Postdoctoral Scholar at the Querrey Simpson Institute for Bioelectronics at Northwestern University. At Dalhousie, Dr. Wu leads a research lab dedicated to advancing wearable, implantable and resorbable biomaterials and bioelectronics, as well as microfluidic biosensors and electronic textiles.

Abstract: The next generation of healthcare technologies is moving toward systems that are soft and intimately integrated with the human body. Materials and structural designs play a central role in realizing such wearable and implantable devices, enabling them to conform to dynamic biological surfaces, communicate bi-directionally with tissues, and even disappear safely after use. This talk will explore how soft, stretchable, and/or bioresorbable systems can interface seamlessly with the human body to enable new forms of connected patient-centered healthcare. By integrating concepts from textiles, microfluidics, transient materials and additive manufacturing, these technologies open new possibilities for monitoring, therapy, and sustainable biomedical devices that dissolve harmlessly after use.