



이름: 이원령/Wonryung Lee

직위: 선임연구원/Senior Researcher

소속: 한국과학기술연구원/KIST

기타소속:

강연제목: 생체적합형 바이오메디컬 디바이스 플랫폼/
Conformable Bio-Medical Devices Platform

Abstract:

A biocompatible biomedical device platform is currently being extensively researched based on thin-film flexible electronic circuits. This approach enables more accurate signal measurement by matching the curvature radius with the biological surface and has been reported to suppress immune responses within the body. In this presentation, we aim to introduce the development of a device platform that can achieve a seamless interface contact between such devices and biological surfaces. The developed device platform consists of two types: an ultra-thin, fully implantable device and a flexible microneedle-type, partially implantable device. The applications of this platform have been demonstrated for electrical signal mapping of internal organs and biochemical signal measurement.

Brief Biosketch

발표자는 현재 KIST 센서시스템연구센터의 선임연구원 (2020년 6월~)으로 재직 중에 있으며, The University of Tokyo 전기전자 박사졸업 (2018년 3월) 하였다. 주된 연구 테마로는 생체삽입형 체내신호센서 개발 등이 있으며, 극박막형 디바이스 플랫폼, 유연 마이크로니들 플랫폼을 주로 활용하여 바이오메디컬 관련 연구를 수행중에 있다.

The presenter is currently a Senior Researcher at the Center for Sensor System Research, KIST (since June 2020) and obtained a Ph.D. in Electrical and Electronics Engineering from The University of Tokyo in March 2018. The main research themes include the development of implantable in-body signal sensors, with a focus on using ultra-thin device platforms and flexible microneedle platforms for biomedical-related research.