



Flexible sensors for Biomedical Technology

Flexible sensing devices have gained a great deal of attention among the scientific community in recent years. The application of flexible sensors spans over several fields, including medicine, industrial automation, robotics, security, and human-machine interfacing. In particular, noninvasive health-monitoring devices are expected to play a key role for the improvement of patient life and in reducing costs associated to clinical and biomedical diagnostic procedures.

In this project, we are aiming at multifunctional, biocompatible, wearable or implantable devices capable of sensing analytes with wireless communication for ease in readout and analysis. Biocompatible polymers may also be used as on-skin actuators for drug delivery systems. This multidisciplinary project will comprise the use of 3D printing technologies, nanomaterials such as nanoparticles and graphene, biodegradable polymers on flexible substrates and biochemical interactions for biosensing. We seek for candidates with strong background in materials science, engineering or (electro)chemistry. Prior experience in biosensing or polymer chemistry will be desired.