NSF Nanosystems Engineering Research Center for Advanced Self-Powers Systems of Integrated Sensors and Technologies (ASSIST)

Department of Electrical & Computer Engineering, NC State University
Joint Department of Biomedical Engineering, NC State University and UNC Chapel Hill

The ASSIST Center is recruiting postdoctoral researchers to join the BioInterface Laboratory and Integrated Bionic MicroSystems Laboratory to develop a wearable optical sensor for continuous monitoring of biochemical parameters. The Postdoctoral Fellow is expected to work independently and as part of an interdisciplinary team of academic and industry researchers.

Successful applicants should hold a Ph.D. degree (by the starting date) in a field of science or engineering related to the project below; with relevant domain expertise in multiple of the following:

- thin-film device design and fabrication;
- polymer and soft materials engineering;
- clinical and animal experimentation;
- sensor front-end, analog circuit design;
- embedded systems design;
- optical system testing;
- flexible circuits layout;

SPECIFIC PROJECT AREAS:
Long-lasting non-invasive sensors provide continuous, multi-analyte data which will enable monitoring of metabolic status, ion panels, blood gasses, and other key physiological biomarkers. The Postdoctoral Fellow will be responsible for designing and engineering thin-film wearable devices to interrogate different biological tissues in vivo and optically. An emphasis will be placed on fabrication and operation of thin-film electronic and optical devices.

If you are interested, please contact Prof. Alper Bozkurt at alper.bozkurt@ncsu.edu and Prof. Michael Daniele at mdaniel6@ncsu.edu with a C.V. and cover letter describing your relevant experience and motivation.