



A National Science Foundation Engineering Research Center, founded September 2012

ASSIST

NSF NANOSYSTEMS ENGINEERING RESEARCH CENTER FOR
ADVANCED SELF-POWERED SYSTEMS OF
INTEGRATED SENSORS AND TECHNOLOGIES

The Interface of Medicine & Engineering

Industry Partnership Program
assist.ncsu.edu

The ASSIST Innovation Ecosystem and Industry Program

Our industry partners engage along the entire spectrum of technology development. Translational research requires collaborative systems thinking and specific use case development. ASSIST partnerships with industry, medical and environmental research practitioners, and health and wellness entrepreneurs enable the development of next generation human performance and asset monitoring devices.

The ASSIST Center connects members and sponsors to the research environment to build lasting relationships. The Industry Program offers a wide variety of valuable benefits through innovation and a highly collaborative environment. Here are some of the great benefits and opportunities available to ASSIST members.

- + Special access to Center inventions and patents
- + Influence the direction of Center research through interaction with faculty and students
- + Directly vote on research proposals through Industry Advisory Board
- + Engage with students (through internships and hires)
- + Mentor research projects to enhance commercial potential
- + Vote on what intellectual property is supported through the Center's inventions
- + Display your corporate logo with the world-leading innovators at ASSIST
- + Recommend priorities to the Director and Leadership Team

ASSIST Research and Education Programs

Research and education are core components in the success of the ASSIST Center. Innovation in education programs, combined with our dynamic research capabilities, focus our energy on highly impactful technology and the development of skilled, adaptive students.

Through our signature program for Translational Engineering Skills, we host experts and hold workshops to ensure our graduates go beyond the traditional curriculum. They study important non-engineering skills, like patent mining, systems mining, market research, and scientific public speaking and presentation skills. Many of our students join the Center to participate in our close industry relations. They work hard to understand private sector needs and how they can be met through the academic environment.

Member Benefits



Technology Leadership

- Follow developments in a field related to your company's business
- Gain access to specific expertise resident in the ERC
- Access ERC developed intellectual property
- Gain access to ERC facilities / equipment
- Access hundreds of pages of technical projects, presentations, and reports

Strategic Cooperation

- Seek partnerships and network with other IAB members
- Leverage company resources through collaborative research
- Support advances in a technology space important to your company
- Representing industry perspectives to the National Science Foundation



Developing Talent

- Evaluate students as potential employees
- Priority access to student interns
- Establish relationships with ERC faculty
- Discounted access to ASSIST workshops and conferences

Benefits Reserved for Full and Associate Members

Full Members -

Priority IP rights; full voting power on project selection, funding, and IP strategy

Associate Members -

Secondary IP rights; voting power on project selection, funding, and IP strategy

Full & Associate Members -

Non-exclusive royalty free research licenses to core-funded ASSIST projects, greater than 100:1 leverage of membership fees through access to NSF funded results.

Vision

A paradigm shift is coming in health informatics enabled by multimodal sensors which monitor individual health parameters and environmental exposure. Long-term sensing helps patients, doctors, and engineers to make direct correlations between health and environmental toxins, allowing for disease prediction, management, and treatment. ASSIST's solutions will accelerate research to clinical trials and inform environmental policy.

Foundation

ASSIST, founded in 2012, has continually grown and added to its outstanding research and outreach programs, developing new technologies in the nano space.

Research

ASSIST research focuses on the application of nanotechnologies in wearable health monitoring and environmental sensing, including: energy harvesting and storage, low-powered electronics, wearable sensors, and integrated sensor design.

Education

ASSIST's diverse and interactive community culture of engineering research and education develops adaptive, innovative, and dynamic students in graduate, undergraduate, and pre-college environments.

Funding

The Advanced Self-Powered Systems of Integrated Sensors and Technologies Center is an NSF Engineering Research Center supported by a 10 year, \$40 million grant. This funding is supplemented with additional support from industry memberships, sponsorships, and additional research grant awards.

Core Partner Institutions

NC State University
Penn State University
University of Virginia
Florida International University

Collaborating Institutions

University of Michigan
UNC Chapel Hill
University of Notre Dame
University of Utah

Leadership Team

Veena Misra, Ph.D.
Center Director

Mehmet Ozturk, Ph.D.
Deputy Director

Casey Boutwell, Ph.D., MBA
Industry and Innovation Director

Elena Veety, Ph.D.
Education Director

Jason Strohmaier
Chief Systems Engineer

Roy Charles, Ph.D.
Diversity Director

Malakai Erskine
Administrative Director

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