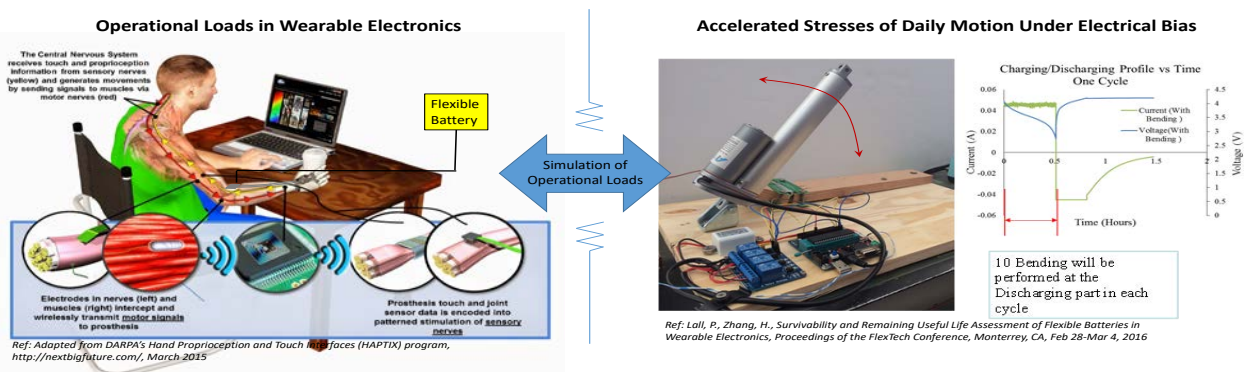


# NextFlex PC 2.0: Mechanical Test Methods for Flexible Hybrid Electronics Materials and Devices

## ABSTRACT

The project scope will include the creation of the test protocols for a broad spectrum of materials and devices including substrates, printed and non-printed component and interconnects. The test protocols will focus on the development of methods to replicate the use-cases, ranging from minimal deformation to those involving thousands of flex cycles. It is expected that the test protocols will be used for reliability assessment of FHE and making informed decisions about manufacturing processes and materials through the quantification of acceleration factors. The existence of test protocols and well quantified acceleration factors will encourage broader adoption of flexible electronics technologies in existing and new applications. The technical approach for development and demonstration of mechanical test methods for reliability assessment to inform manufacturing processes and materials will include three major tasks (Figure 12) including: (1) Development and Demonstration of Test Protocols (2) Correlation of Accelerated Test Loads with Operational Loads (3) Development of Test Protocols Document of Mechanical Test Methods for FHE.



## TEAM

Lead: Auburn University

Key Partners: Southern Research Institute, Optomec, STI Electronics, AHS, AU- Edward Via College of Osteopathic Medicine