

# **Multiple -Input Environmental Sensing Technology Utilizing Microfabricated Cantilever Structures**

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## **ABSTRACT**

Various environmental monitoring applications have been developed utilizing a microelectromechanical-systems (MEMS) based sensor platform developed at ORNL. This self-powered, palm-sized sensor prototype has been demonstrated with on-board spread-spectrum telemetry to allow for remote environmental sensing capabilities. Arrays of up to 10 microfabricated cantilever structures on each chip have been simultaneously monitored with this system. In this presentation, an introduction to the instrumentation allowing for this sensing development as well as some specific sensing examples will be presented.