NIST helps develop new standard for microsensor technology

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The National Institute of Standards and Technology (NIST) has contributed to the development of a new standard for defining the performance of micromechanical sensors—a field that is expected to expand rapidly in coming decades as these versatile sensors increasingly become part of electronic networks.

The IEEE 2700-2014 Standard for Sensor Performance Parameter Definitions, now available from the IEEE Standards Association, provides a common methodology for specifying the performance of microelectromechanical systems (MEMS) in the consumer electronics industry. The standard includes specifications for a wide range of devices, including accelerometers, gyroscopes, barometers and proximity sensors.

NIST's Herbert Bennett and Michael Gaitan worked on the standard's development committee to coordinate the group effort between NIST, the MEMS Industry Group, the IEEE Electron Devices Society and the IEEE Standards Association to collaborate on MEMS commercialization standards.

MEMS are a class of tiny machines, typically far less than a millimeter in size, that combine moving parts or sensors with electronic components. MEMS already are used widely, for example, as motion detectors in tablet computers or as triggers for automobile collision airbags. Their use is expected to grow as sensing devices on buildings, vehicles and elsewhere are linked to computer networks to create the

"Internet of Things." The diversity of these sensing devices demands new industry standards to ensure their compatibility.

More information: For more information on the standard, see IEEE's announcement, "IEEE 2700-2014 Specifies Sensor Performance In Consumer Electronics Technologies To Stimulate Innovation For Enabling The Connected Person," at standards.ieee.org/news/2014/ieee_2700.html.

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