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Brief Bio

Kang B. Lee leads smart sensors and wireless sensor network standards work at the Intelligence Systems Division of the National Institute of Standards and Technology (NIST), an agency of the US Department of Commerce. Kang is currently the project manager of secure wireless platforms for smart manufacturing systems. Kang's research interests include sensor and factory equipment network testing and measurements for real-time communications, monitoring and control, and precision time synchronization of networked components and equipment for smart manufacturing. Over the years, Kang has organized and chaired a number of conferences and workshops and been guest editor, such as Precision Clock Synchronization, Wireless Sensor Standards, Sensors for Industry, Wireless Sensors for Factory Floor, and Instrumentation and Measurement Technology (IMTC and I2MTC). Kang is the Chair of the IEEE I&M Society Technical Committee TC-9 on Sensor Technology that is responsible for the development of the family of eight IEEE 1451 smart transducer standards for wireline and wireless sensor networks. Through Kang's effort on IEEE and ISO collaboration, the IEEE 1451 standards have become ISO/IEC/IEEE 21451 standards. Kang was also instrumental in leading the development of the IEEE 1588 standards with industry partners in 2000 and promulgating the standards through the organizations of workshops, symposiums, and plugfests over the last thirteen years to gradually build the IEEE International Symposium on Precision Clock Synchronization (ISPCS) into an annual event and gainful conference for the I&M Society. The IEEE 1588 is recognized worldwide as the Precision Time Protocol (PTP) standard, a known brand for IEEE-SA. IEEE 1588 has been adopted globally by many industries and governments, such as test and measurements, industrial automation, power and utility, semiconductors, telecommunication, military, and even financial trading market. The CERN's White Rabbit project has adopted IEEE 1588 in their instrumentation system design - time synchronizing 1000 stations to a precision of under 200 picoseconds. IEEE 1588 and precision time synchronization has become an important research topic for many academic institutions. Kang is an IEEE Life Fellow and has authored numerous papers on smart sensor networks and standards, and has given a number of invited keynotes on the subjects of smart sensors, RFID, Internet of Things, and precision time synchronization. Kang has been AdCom Member of I&M Society as well as the Sensors Council. The EE Times profiled Kang as one of twenty-nine innovators in the world in 2006. Kang received his BSEE from the Johns Hopkins University and Master of Science from the University of Maryland.


Machine Tools