PNI SENSOR'S TINY TRACKING CHIP FOR WEARABLES SOLVES THE MISSING SIGNAL PROBLEM FOR PEDESTRIAN NAVIGATION

--CES 2016 Innovation Awards Nominee SENtrace beats standalone GPS: saves battery, enables accurate pedestrian navigation across environments

LAS VEGAS -- (January 5, 2016) -- PNI Sensor Corp. today introduced CES® 2016 Innovations Awards Nominee SENtrace™, the first coprocessor for wearable devices that provides truly accurate, ultra-low power pedestrian tracking indoors, in urban canyons and in other environments where global positioning systems (GPS) signal goes missing or is inadequate.

SENtrace is a miniscule custom ASIC that uses just a trace of the power that GPS demands. Using PNI Sensor's proprietary embedded algorithms, it leverages existing ultra-low power inertial sensors to track users when there is little or no GPS signal. It also dramatically reduces overall battery consumption because it overrides and deactivates power-hungry GPS when it's not needed. In typical configurations, SENtrace uses one-tenth the power of GPS for computing each location point.

SENtrace provides tracking to one-meter accuracy over 100 meters traveled, supplying step-by-step data instead of extrapolations between two location points. That's a vast improvement over GPS, which tracks location to approximately 10 meters over 100 meters traveled.

"PNI Sensor has tapped more than two decades' experience in military-grade location-tracking for robots, humans in combat situations, and unmanned vehicles to develop SENtrace," said Becky Oh, president and CEO, PNI Sensor Corp. "We also have years of perfecting the highest-accuracy, lowest-power 9-axis sensor fusion for wearables and smartphones. SENtrace is the result of our combined expertise. It stays accurate over time and through a wide range of conditions, so its data can be trusted to deliver precise results in real-world scenarios.

Wearables manufacturers will finally be able to offer proven pedestrian-tracking to consumers -- without having to worry about battery drain."

Potential Applications

"We foresee a range of applications for SENtrace in wearables," added Oh. "They include wrist-worn devices for locating lost children or elders and enhanced activity wristbands and smartwatches for athletes and fitness enthusiasts."

About the Technology

At just 1.7 x 1.7 x 0.5mm, SENtrace is a 32-bit processor with a custom floating point unit (FPU) embedded with PNI's sensor fusion tracking algorithms. These algorithms offload the tracking task from a device's main processor, thereby saving battery power.

SENtrace's algorithms work with any sensor manufacturer's sensors, allowing wearables original equipment manufacturers (OEMs) to select from a wide array of commercially available accelerometers, gyros and magnetic sensors.

CES 2016 Innovation Awards Honoree

SENtrace (code name: SENtral-PDR) has been named an Innovation Awards Honoree for CES® 2016 in the Embedded Technologies product category. The CES Innovation Awards program is an annual competition honoring outstanding design and engineering advancements across 27 consumer technology product categories.

Visit PNI Sensor on the Show Floor

To learn more about SENtrace, visit PNI Sensor in Booth #70536, Tech West, Sands Expo, Level 2, Halls A-C (Smart Home Marketplace), which will be open January 6-9 during CES 2016 exhibition hours. To schedule an appointment, please email: sales@pnicorp.com.

For More Information

SENtrace will begin sampling from PNI Sensor in Q1 2016. For more information, please visit: http://www.pnicorp.com/products/sentrace/ or email: sales@pnicorp.com.

PNI Sensor Corp.

PNI Sensor Corporation develops the world's highest-performance software and hardware solutions for extracting user context, activity and location awareness from the mass-produced sensors found in smartphones, wearables and other consumer products. The company's software IP is the direct result of leveraging 30 years of geomagnetic sensing, motion

measurement and sensor fusion experience in high-performance consumer, military and industrial markets.

For more information, please visit: http://www.pnicorp.com or email: press@pnicorp.com.

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