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Press Release

Socionext and Innatera Introduce Integrated 60 GHz FMCW Radar and Neuromorphic Edge AI for Human Presence Detection

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Langen/Germany, Yokohama/Japan, February 23, 2026 --- Socionext and Innatera today announced a jointly developed human-presence detection solution that combines 60 GHz FMCW radar sensing with neuromorphic edge AI to deliver reliable, always-on detection with drastically reduced power consumption. A live demonstration of technology will be showcased at Embedded World 2026 in Nuremberg (Booth 4A-628).

The solution integrates Socionext's compact 60 GHz FMCW radar, which captures detailed 3D environmental information under all lighting and weather conditions, with Innatera's ultra-low-power Spiking Neural Processor, which interprets radar patterns directly at the sensor edge. The neuromorphic processor distinguishes human from non-human motion - including stationary individuals - achieving over 99% detection accuracy while maintaining sub-milliwatt power levels. This enables devices such as cameras and radios to remain asleep until real human presence is confirmed, extending battery life by 3–6×.

"Our 60 GHz FMCW radar delivers precise, privacy-preserving sensing in a compact form factor, making it ideal for battery-powered IoT devices," said Matthias Neumann, Senior Marketing Manager Smart Devices & Industrial at Socionext. "Together with Innatera, we are demonstrating a presence-detection solution that raises the bar for accuracy, integration flexibility, and real-world reliability."

"Neuromorphic computing is unlocking a new generation of always-on functions in devices, through powerful, brain-like processing of sensor data within a tiny energy footprint," said Sumeet Kumar, CEO at Innatera. "Combining our Spiking Neural Processor with Socionext's FMCW radar enables robust, real-time human-presence detection at power levels no conventional AI system can match."

At Embedded World 2026, attendees will be able to experience firsthand how the joint solution:

- Detects human presence accurately, including stationary individuals
- Filters out motion from animals, foliage, and environmental noise
- Operates fully on-device with no cloud dependency
- Supports compact, battery-efficient consumer, industrial, and automotive designs

Target applications include smart doorbells and cameras, smart-building occupancy sensing, in-cabin automotive monitoring, elderly-care and industrial safety systems, and gesture-driven interfaces.

About Socionext Europe GmbH
Socionext Europe (SNEU) is an integral part of Socionext Inc.'s global structure, headquartered in Frankfurt, Germany, with a key facility in Munich. Central to our operations, the Munich Design and Support Center excels in developing advanced graphics IP, alongside innovative hardware and software solutions tailored for the automotive industry. Our expertise also spans sectors such as networking, data centers, IoT, Radar Sensing, and Industrial Automation. SNEU is committed to delivering comprehensive SoC solutions, catering to the latest market needs from concept through to completion. For more details, assistance, or to connect with our team, please visit our Website, email info@eu.socionext.com, or follow us on Facebook, LinkedIn, X und YouTube.

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About Socionext Inc.

Socionext Inc., a leading global System-on-Chip (SoC) supplier, is a pioneer of the ‘Solution SoC’ business model. This innovative approach encompasses Socionext’s ‘Entire Design’ capabilities and offering of ‘Complete Service’. As a trusted silicon partner, Socionext fuels global innovation, providing superior features, performance, and quality that set its customers’ products and services apart in diverse domains ranging from automotive and data centers to networking, smart devices, and industrial equipment.

Socionext Inc., based in Yokohama, operates offices across Japan, Asia, the United States, and Europe for development and sales. For more information, visit https://www.socionext.com/en/.

About Innatera

Innatera is a spin-off from the Delft University of Technology in the Netherlands. Born out of a decade of research on energy-efficient neuromorphic computing, it pioneers a new breed of microprocessors that aim to bring brain-like intelligence to sensors. Backed by leading European deeptech VCs Matterwave Ventures, MIG Capital, European Innovation Council, InvestNL, Innavest, and Delft Enterprises, we're on a mission to make a billion sensors intelligent by 2030. Our vision of the future is one where electronic devices integrate seamlessly into our lives, making the world around us smarter, safer, and cleaner.

https://innatera.com/