Imec & Renesas Collaborate on Ultra-Low Power, Short Range Radios

Imec and Renesas Electronics Corporation

Leuven (Belgium)– Imec [1] and Renesas Electronics Corporation [2] have announced that they have entered into a new strategic research collaboration at Holst Centre [3]. Together, the companies will collaborate to enhance ultra-low power (ULP) wireless technologies for short range communication, targeting sensor networks for automotive and industrial purposes.

As the newest member of imec's ULP wireless systems program, Renesas will work to jointly develop multi-standard radio solutions for small battery-operated or harvested wireless handheld devices. By combining innovative architectures, advanced ULP design IP and efficient low power circuits, imec's ULP radios achieve best-in-class performance and reduce power consumption by a factor of 3 to 10 lower than today's radios. Additionally, imec's ULP high-performance radios are compliant with state-of-the-art wireless standards, such as Bluetooth Low Energy (2.4GHz band) and ZigBee (2.4GHz band).

"Building on a proven track record of designs, our research program on ULP wireless systems offers great value to our industrial partners. Combining application, circuits and technology know-how, we provide a complete solution, shortening the time-to-market for our industrial partners," says Harmke de Groot, program director ULP wireless technologies at imec/Holst Centre. "After five years of successful collaboration in our Green Radio program, we are pleased that a prominent semiconductor company as Renesas now joins our ULP wireless systems R&D. We look forward to developing enhanced ULP solutions contributing to the realization of the internet of things in mass market applications."

"Various applications of sensor networks for a smart society need ultra-low power wireless communication technologies. So we develop innovative RF architectures and circuit technologies for them," says Koichi Yahagi, Senior Manager of 2nd Analog Core Development Department, Core Technology Business Division, 1st Solution Business Unit, Renesas Electronics Corporation. "We are pleased to join imec's program to develop new ultra-low power technologies. By combining our Microcontroller units with ultra-low power wireless communication technologies led by this collaboration, we aim to supply solutions for a smart society."

For more information visit www.imec.be [1], www.holstcentre.com [3], and www.renesas.com [2].

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