HealthManagement.org
Promoting Management and Leadership

Enhanced Wireless Technology for Body Implants and Sensors

Body implants such as pacemakers and hearing aids have been used to counter organ dysfunction for decades. The WISERBAN project is making a giant leap in their development: aiming to provide smarter communications among such devices, with reduced size and lower energy consumption.

In the near future, people affected by health issues as varied as Alzheimer, diabetes, hearing loss, heart failure or even missing limbs could all have something in common: a smart, efficient, in-body or on-body device that makes their daily life easier and more enjoyable. To this end, the development of tiny and ultra-low-power wireless communications is key. It allows these devices to communicate changes in conditions and adjust treatments accordingly. Only limited autonomy and wireless connectivity can be achieved using today's wireless solutions because of their size and power consumption.

Conscious of the fact that this limitation is currently holding back 'wireless body-area network' (WBAN) capability for use in lifestyle and bio-medical applications, the WISERBAN project brings together major medical-device manufacturers, research institutes and chip makers to overcome this obstacle. WISERBAN is foc the extreme miniaturisation of 'body-area network' (BAN) devices. It touches on the areas ofradio-frequency (RF) communications,'Microelectromechanical systems' (MEMS) and miniature components, miniature reconfigurable antennas, miniaturised and cost-effective system-in-package (SiP), ultra-lowpower MEMS-based radio system-on-chip (SoC), sensor signal processing and flexible communication protocols.

For more information, please visit: www.wiserban.eu

Published on : Fri, 19 Jul 2013

© For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.