



AdaptivEnergy and GainSpan Announce Technology Development Partnership in Support of Energy Harvesting Wi-Fi Sensor Networks

Joint Demonstrations to be conducted at IDTechEx, November 3-4, Denver

Hampton Roads, VA and San Jose, CA — November 2, 2009 — Energy harvesting innovator AdaptivEnergy and GainSpan® Corporation, a leader in low power Wi-Fi semiconductor solutions, have entered into a technology development partnership to further speed the development of energy harvesting to power Wi-Fi wireless sensor networks.

The potential market for energy harvesting solutions used in wireless sensor systems could reach approximately 164 million units by 2013, according to Darnell Group. Energy harvesting can provide energy not only for large scale needs through wind and solar systems, but also for smaller-scale needs such as sensor networks. Utilizing the movement of a person walking, or the vibrations inherent in structures, vehicles and machinery, the harvested energy can drive low power sensors while eliminating the need for batteries.

Two demonstrations featuring energy harvesters powering Wi-Fi sensors will be presented at IDTechEx, Denver, November 3 – 4, (Booth #11). This is the first time WiFi sensor nodes have been powered by micro energy harvesting technology.

In one demonstration, a temperature and light sensor node using GainSpan's technology will be powered by AdaptivEnergy's JTRB-e12 Energy Harvesting Ground Transport module. The sensor node will send temperature and light data through standard Wi-Fi access point and on to a web hosted application, using as the only power source the energy generated from a very small vibration—less than .040 grms.

AdaptivEnergy has integrated Micropelt GmbH thermo-generator technology to power a GainSpan WiFi sensor node. This system will also be on display in the AdaptivEnergy booth at IDTechEx.

"This is an important technology partnership for us," said Jim Vogeley, CEO of AdaptivEnergy. "We are excited to unite AdaptivEnergy and GainSpan technologies in producing the first true Wi-Fi sensor solutions powered solely by micro energy harvesters. The ultra low power nature of GainSpan products opens up considerable new opportunities for battery-less autonomous intelligent sensor networks while also adding significant flexibility and functionality to our energy harvesting solutions."

“AdaptivEnergy’s technology offers groundbreaking capabilities in energy harvesting,” said Bernard Aboussouan, vice president of marketing, GainSpan. “This demonstration is a very promising step towards availability of battery-less Wi-Fi sensor devices, and the progress made in energy harvesting and low power Wi-Fi opens a lot of opportunities for devices to track location and monitor the health of people and condition of assets.”

AdaptivEnergy’s Joule-Thief™ is an advanced energy harvesting device that can use any movement, from the motion of a personal walking, flowing air or water, or even a door opening and closing to create and store electricity.

GainSpan’s GS1010 system-on-chip is the industry’s most highly integrated and lowest power consuming Wi-Fi semiconductor solution. The GS1010 contains an 802.11 radio, media access controller (MAC), baseband processor, on-chip flash memory, SRAM, and an applications processor in a single package. It provides a highly scalable, reliable, manageable, and secure wireless link for sensor networks and other embedded Wi-Fi applications.

In addition to the technology development partnership, both GainSpan and AdaptivEnergy have received investment and entered into strategic technology development agreements with In-Q-Tel, the independent investment firm that identifies innovative technology solutions to support the mission of the U.S. Intelligence Community.

About AdaptivEnergy

AdaptivEnergy designs, manufactures and markets energy harvesting power supply solutions that enable self-sustaining microelectronics or extend battery life. Joule-Thief™ powers wireless sensors and active RFID devices using standard wireless protocols like Zigbee, Wi-Fi and Bluetooth by scavenging the surrounding environment. Headquartered in Hampton Roads, Virginia, AdaptivEnergy delivers its products through its worldwide technology, distribution and manufacturing network. For more information about AdaptivEnergy energy harvesting power solutions visit Mouser Electronics at www.Mouser.com or contact Richard McKee at (757) 320-1361.

About GainSpan

GainSpan Corporation, a spinoff of Intel Corporation, is a leader in ultra low power Wi-Fi semiconductor solutions. GainSpan provides the industry’s most highly integrated low power Wi-Fi chip solution for battery-powered or energy-harvesting sensor devices and other embedded systems. Devices using GainSpan’s solution can run for up to 10 years on a single AA battery. GainSpan enables its customers to leverage the large installed base of Wi-Fi access points and devices and create new products for building automation, smart home energy, health monitoring, and real time location system (RTLS) applications, while reducing the overall operation and installation costs of sensor networks. www.gainspan.com.