

 	<p><b>The 38<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society</b></p> <p><b>IECON' 2012</b></p>	 Le génie pour l'industrie
<p><b>25-28 October, 2012</b></p> <p><b>Montréal, Québec, Canada</b></p>		

## Proposal for IECON 2012 Special Session

Special Session on: **Real-time Wireless Communication for Industrial Applications**

Recent standardization efforts such as WirelessHART, ISA 100, and related work within the IEEE and IETF now provide end-users with several alternatives for industrial low-power wireless communications. An increasing number of industrial deployments demonstrate the power of these technologies, but also reveal limitations of current theory and practice. At the same time, academic researchers in a range of disciplines are laying the foundations for next generation wireless control systems, developing new networking protocols, resource management techniques and control strategies.

Special Session Organizers (names and contact emails):

Dr Mikael Gidlund, ABB Corporate Research, Sweden. [mikael.gidlund@se.abb.com](mailto:mikael.gidlund@se.abb.com)

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Technical Outline of the Session (50 words) and Topics:

This special session on Real-Time Wireless for Industrial Applications brings together academic and industry professional to a session on the design and application of real-time wireless communication for industrial monitoring and control. We solicit technical papers describing original ideas, theory, methodology and experiences from the design, implementation and deployment of reliable real-time wireless communication and control.

Topics of interest include, but are not limited to,

- Protocols for reliable real-time communication over wireless
- Performance, simulation, RF measurements and modeling of wireless sensor and actuator networks
- Control over wireless networks
- Deployment and integration of wireless sensor and actuator networks
- Network optimization and management
- Architectures for industrial sensor and actuator networks
- Security and safety issues in industrial wireless networks and applications