


Requests for Collaboration

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Research Interests	
<ul style="list-style-type: none">● Wireless communication systems● Sensor networks● Measurement devices and systems	
Creative Achievements in The Application of New and Existing Science and Technology	
<p>(1) Sensing devices such as a humidity sensor for high temperature operated by principle of wet- and dry-bulb thermometer, a forgetfulness using wireless sensor networks, etc. have developed.</p> <p>(2) Reliable wireless monitoring system for food factory operations has been developed for keeping and improving food product quality. The wireless relay nodes implemented with specific protocol provide robust and reliable network infrastructure for sensor networking.</p> <p>(3) The wireless monitoring system for local community has developed to support dementia elders. Using a small energy efficient beacon transmitter kept by each target elder, and 20-30 wireless base stations placed in local community area, position estimation based on received signal power of beacon signals can be available with low cost and light load operations.</p>	
Technology (Product, Process, Device, Service etc.) That I Want to Request for Collaboration	
<ul style="list-style-type: none">● Development of monitoring systems using wireless sensor networks.● Development of new sensing devices.	
A List of 5 Key Publications	
<ul style="list-style-type: none">• Tetsuo Tsujioka, Hiroyuki Iyota, Masahito Ohmori, Michiaki Tanaka, Haruo Kitamura, "A Study on Water Retention Control for a Humidity Sensor in Superheated Steam," Proceedings of the 14th Symposium on Temperature and Thermal Measurements in Industry and Science (TEMPMEKO 2013), p. 408, Madeira, Portugal, Oct 2013.• Shin Okamoto, Tetsuo Tsujioka, Shinsuke Hara, Hajime Nakamura, Takashi Kawabata, Kenji Watanabe, Masanao Ise, Noa Arime, Hiroyuki Okuhata, "Design of wireless waist-mounted vital sensor node for athletes - Performance evaluation of microcontrollers suitable for signal processing of ECG signal at waist part -," Proceedings of 2014 IEEE Topical Conference on Biomedical Wireless Technologies, Networks and Sensing Systems (BioWireleSS 2014), pp. 16-18, Newport Beach, USA, Jan. 2014. ISBN 978-1-4799-2182-9• Kohei Miura, Hiroyuki Iyota, Taiki Matsumoto, Tetsuo Tsujioka, Akihiro Morikawa, Michiaki Tanaka, Naoki Uesugi, "Development of Humidity Measuring Device Using Porous Ceramic Based on Principle of Psychrometer," Proceedings of the 24th IIR International Congress of Refrigeration (ICR2015), ID:349, B1-Th-P, Yokohama, Japan, Aug. 2015.• Tetsuo Tsujioka, Akihiro Morikawa, Kazuma Kodama, Taro Ozaki, Hiroyuki Iyota, "Development of a Wireless Temperature/Humidity Sensor Node that can be Placed in Ovens," Proceedings of the 15th Symposium on Temperature and Thermal Measurements in Industry and Science (TEMPMEKO 2016), p. 56, Zakopane, Poland, June 2016.• Sangseok Ha, Ikuo Oka, Tetsuo Tsujioka, Hitoshi Watanabe, Yu Morishima, "Archery Arrow Localization Using TDOA of Impact Sound," Proceedings of the 2017 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing (NCSP'17), pp. 477-480, Guam, USA, Feb.-March, 2017.	