Ultra Wideband (UWB) has been selected as a technological solution for the emerging areas of body area networking (BAN) by the Std. IEEE802.15.6-2012. Due to its very low power spectral density caused by extremely wide bandwidth combined with a low transmit power, UWB is a serious contender for a number of health care applications including remote monitoring of both vital signs (temperature, pulse oximetry, etc.) as well as other medically significant data, such as ECG and EMG.

The wide bandwidth of UWB signal allows also high-resolution ranging and localization, particularly in indoor areas, thereby enabling indoor tracking solutions for disabled patients, children and equipment in hospitals and other institutions as well as homes. UWB also holds promise for medical implant applications, such as capsule endoscopy, and may even be an enabler of next-generation micro-robotic surgery applications.

Ultra Wideband (UWB) has been selected as a technological solution for the emerging areas of body area networking (BAN) by the Std. IEEE802.15.6-2012. Due to its very low power spectral density caused by extremely wide bandwidth combined with a low transmit power, UWB is a serious contender for a number of health care applications including remote monitoring of both vital signs (temperature, pulse oximetry, etc.) as well as other medically significant data, such as ECG and EMG.

The wide bandwidth of UWB signal allows also high-resolution ranging and localization, particularly in indoor areas, thereby enabling indoor tracking solutions for disabled patients, children and equipment in hospitals and other institutions as well as homes. UWB also holds promise for medical implant applications, such as capsule endoscopy, and may even be an enabler of next-generation micro-robotic surgery applications.

The former of these applications would benefit from the very high bandwidth of UWB signals in transmission of very high resolution images and video of human body organs, and the latter would improve the high ranging and localization accuracy provided by UWB signaling.

The primary goal of this workshop is to explore the state of the art in the development of UWB technology for body area networking, ranging from fundamental physical layer concepts, such as channel modeling and tranceivers’ solutions to system architecture and development of prototypes and clinical trials. In addition, higher OSI layer solutions enabling the use of UWB technology are observed.

Therefore, the workshop solicits original unpublished contributions on the ultra wide range of the all possible UWB related areas targeted for WBAN environment.

*All accepted conference and workshop papers will be published in the Conference Proceedings (ACM Digital Library), and submitted for indexing by ISI, EI Compendex, Scopus, Google Scholar and many more.