Abstract

In the last few years, a great attention has been paid to wireless communications for body area networks especially since the IEEE 802.15.6 standard. The main objective of this work is to present a good technique for identifying between both Line-Of-Sight (LOS) and Non-Line-Of-Sight (NLOS) propagation schemes for UWB both of both on-body and off-body communication. Our work is focalize in the first to extract the information using traditional features compared with our proposed methods and secondly to classify it using Support Vector Machine for objective to given a good recognition rate of identification between LOS and NLOS phenomena. This characterized was applied for UWB measurement by the antenna Electromagnetics Group (Body WiSeR).

References

1. Stefano Marano, Wesley M. Gifford, Henk Wymeersch, Moe Z. Win, “Nonparametric


18. Mohamed Tabaa, Camille Diou, Rachid Saadane, Abbas Dandache, « LOS /NLOS
Identification based on stable distribution feature extraction and SVM classifier for UWB On-body communications », Procedia Computer Science Volume 32, pages 882-887, 2014.


Index Terms

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Keywords

Ultra-wideband (UWB), Line-of-sight (LOS), Non-line-of-sight (NLOS), Stable distribution, Support Vector Machine (SVM), On-body, Off-body.