

Directional characteristics of shadowing between on-body nodes and off-body antennas during human movement in WBAN

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Abstract:

Wireless body area network (WBAN) makes great attention in wireless communications these days for its applicability to medical and healthcare applications. To make WBAN channel models useful in actual uses, both intentional and unintentional human movements should be taken into account. Moreover wave propagations of WBANs are not only among on-body nodes, but also on-body nodes to external antennas. However it does not become clear where is the best location of communication node on body to communicate with external access points. In this paper, shadowing characteristic of between on-body nodes and an external access point by human body during human walking is studied from viewpoints of locations of the nodes and incident angles.