Design of a Body Area Network for Medical Applications: the WiserBAN Project

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Abstract:

This paper deals with some preliminary results achieved in the framework of the FP7 project WiserBAN (Smart miniature low-power wireless microsystem for Body Area Networks), aiming at the creation of a low-power and miniature microsystem targeting wearable and implanted devices for medical applications. The results achieved in the first year of the project, related to the radio channel characterization and protocol design, are reported. Different Medium Access Control protocols, based on existing and emerging standards, are proposed and their performance are compared. Results show that the proposed protocols allow to satisfy the end users requirements.