ACADEMICIA: An International Multidisciplinary Research Journal
ISSN: 2249-7137 Vol. 11, Issue 12, December 2021 SJIF 2021 = 7.492
A peer reviewed journal

POWER AND COST REVIEW OF TRANSCEIVER DESIGN

Prashant Kumar*

*Assistant Professor,
Department of Electronics & Communication Engineering, Faculty of Engineering,
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, INDIA
Email id: prashant.engineering@tmu.ac.in

DOI: 10.5958/2249-7137.2021.02645.8

ABSTRACT

This article analyzes trends for ultra-low-performance wireless transceiver systems and built-in circuit design in order to utilize cheap CMOS technology nodes. These efficient transceiver designs are usually utilized in goods like fitness monitors and other wearable healthcare devices, IoT devices and general sensor nodes. A brief overview of ultra-low power transmitters and receivers is given of the state-of-the-art (SoA) designs, techniques and performance metrics. An example case study of the transceiver for the medical sensor nodes is given and analyzes the often conflicting requirements of communication range, data rates, reliability and energy consumption. The results of this study will serve as a starting point for a challenging implementation using the power reduction technology provided for the future development of the SoA and for applications where energy generation from the environment is envisioned.

KEYWORDS: *Business, Leadership, Management, Organizational Behavior, Psychology.*

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