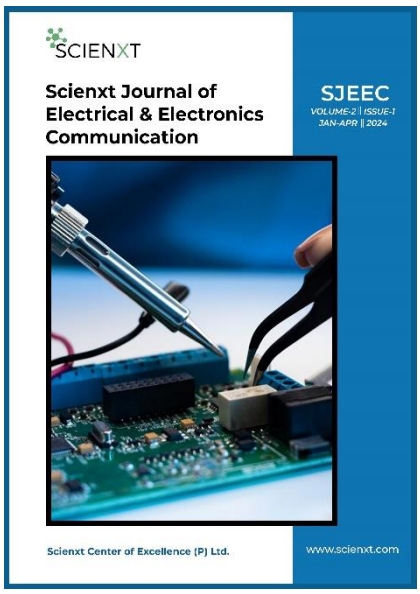

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A review paper on challenges and requirements in 5G technology for mobile communication

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Abstract:

The primary focus of this study is to advance mobile communication through the utilization of 5G technology. Previous research endeavors in global mobile communication, utilizing 5G technology, have significantly contributed to its development, spanning various approaches encompassing both hardware and software innovations. While 4G technology currently fulfills requirements, its adequacy may diminish in the forthcoming five to ten years, failing to meet the demands of emerging applications. The advent of 5G promises to augment data rates, diminish end-to-end latency, and enhance coverage, particularly benefiting applications associated with the Internet of Things (IoT) and Device-to-Device (D2D) communication, integral components of the evolving 5G architecture.

This paper's principal contribution lies in elucidating the essential aspects of mobile communication facilitated by 5G (Fifth Generation) technology, which primarily caters to consumer needs. Within the realm of 5G technology, paramount importance is placed on enhancing the mobile consumer experience, prioritizing their requirements above others. The advent of 5G technology heralds a paradigm shift, offering consumers unparalleled bandwidth capabilities, thus ushering in a new era of technological prowess. With its myriad advanced features, 5G technology emerges as the preeminent force shaping the future landscape of communication technology.

Keywords:

5G Technology, GSM, WLAN, LTE, PLMN