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IoT Sensor Networks Optimization for Ultra-Low Latency in 6G URLLC Environment

1st Muhammad Nauman Irshad, 2nd Muhammad Ejaz & 3rd Asad Raza

1st, 2nd, 3rd Central South University, Changsha, China

KEYWORDS	ABSTRACT
Internet of Things, Wireless Sensor Networks, 6G, URLLC, Grey Wolf Optimization	Internet of Things (IoT) is rapidly expanding with billions of connected devices. The demand for wireless sensor connections that work well and are effective has increased as a result of this growth. Within the framework of 6G Ultra-Reliable Low Latency Communications (URLLC) standards, the goal of this study is to look at how to improve wireless sensor networks (WSNs), with a focus on Internet of Things applications. Leveraging advanced 6G features like ultra-low latency and high reliability, our study addresses real-time IoT demands in smart infrastructure, healthcare, and automation. We propose an enhanced hybrid gray wolf optimization (IHGWO) method to optimize WSN performance by reducing latency and improving reliability. This paper demonstrates that our method significantly reduces connection delay in high speed 6G URLLC scenarios. This makes communication in IoT networks faster and more responsive.
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