

## ABSTRACT

*The Quality of Service (QoS) of Wireless networks in campus public spaces plays a crucial role in supporting academic activities that require fast and stable internet connectivity. This study aims to analyze the QoS of Wireless networks on the first floor of the General Lecture Building (GKU) and the Telkom University Landmark Tower (TULT) first floor by measuring Throughput, Packet loss, Delay, and Jitter parameters. A quantitative method was employed by collecting data over two days using Wireshark software and TIPHON standards as evaluation benchmarks, combined with the PDCA (Plan-Do-Check-Act) continuous improvement cycle to assess and enhance service quality. The results indicate that the average Throughput at GKU first floor ranges from 108 Mbps to 224 Mbps, while at TULT first floor it ranges from 23.6 Mbps to 124 Mbps, both significantly exceeding the TIPHON minimum standard of 2.1 Mbps, categorized as excellent. Packet loss rates at both locations are very low, between 0% and 0.06%, meeting the ideal standard of  $\leq 1\%$ . Average Delay at both sites is below 12 ms, well under the maximum threshold of 150 ms, indicating highly responsive networks. Jitter values at TULT first floor are more stable, averaging below 0.63 ms, whereas GKU first floor exhibits more variability but remains within good to fair categories. QoS degradation primarily occurs during peak hours at midday, likely due to high user density. These findings demonstrate that the Wireless networks in both buildings provide very good service quality, effectively supporting academic needs, with TULT first floor showing slightly better QoS stability. Continuous monitoring and improvement are recommended to maintain and enhance Wireless network performance on campus.*

**Keywords:** *Quality of Service, Wireless network, Wireshark, TIPHON, Throughput, Delay, Packet loss, Jitter, Telkom University.*