

# Design and Optimization of a Multi-Core Fiber Optic Communication System for Height-Capacity Data Transmission in Iraq's Urban Environment

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## ABSTRACT

Iraq's industry has gone through various transformation phases and has seen tremendous growth during the recent years. To sustain such growth, the infrastructure should be highly efficient. Fiber optic technology is a main component in the networks because it provides high bandwidth and high speed, thus providing support for current and emerging technologies. To the best of our knowledge, various research works carried out in Iraq so far have not touched on the point of effective improvement in the performance of the fiber optic communication system. The concept behind this research is the design of a Radio over