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GRAPH MODEL FOR PHYSICAL TOPOLOGY DESIGN

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ABSTRACT

This paper is limited to the computer network of Plateau State University Bokkos, which is located in Plateau State, Nigeria, in the western part of Africa. The existing network topology of Plateau State University Bokkos (PSU) was investigated via interview method of survey and topology simulated and analyzed, of which a topology requirement was proposed. Another work used the information provided in that work to design the existing topology in order to guide the proposed topology design. But, this paper presents the graph model of the proposed topology, towards the physical design. The graph model is being generated from the formulated binary matrix, obtained from a survey data that characterized the intending topology.

The graph model is further simulated for shortest path using disktrar algorithm. At the end, a graph model will be proposed towards guiding the physical network design, following the specifications of the graph model. An online software (graphonline.ur) is used to generate and simulate the graph model.

KEYWORDS: Campus Area Network, Graph Model, Binary Matrix, Disktra Algorithm