Effect of a Superuser on the Pansophy of a Network

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In 2017, Boats and Kikas introduced a new parameter, the pansophy of a graph, which measures the best possible performance of a disjoint routing algorithm in a communication network, and can be used in comparison as a measurement of routing efficiency. In this paper, we investigate the effect of adding a "superuser" to a graph, i.e consider the join of a vertex with the original graph. We examine the graph classes of K_n , C_n and P_n and suggest bounds on the change of pansophy.

Keywords: pansophy, disjoint paths interconnection networks.