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DOUBLE SIMULATED ANNEALING MODEL FOR MAPPING OF GRAPHS TO SINGLE-ROW NETWORKS

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Connected graph G is a graph where every pair of distinct vertices in the graph is connected either directly or indirectly. In our real life, many science and engineering applications can be reduced into the connected graph representations, such as telecommunication and wireless sensor problems. A connected graph can be transformed into single row-routing network S as shown by Salleh *et. al.* in 2007. However, the earlier work does not produce optimal results in S as the ordering in G is sequentially done. In this paper we will present a complete optimizing modeling for single row transformation of connected graphs. Thus, the effort to optimize the ordering of vertices in connected graph for transformation into a planar graph in the form of single-row network is carried out through the new interval formation and Double Simulated Annealing (DSA).