Panconnectivity of 2-Tree Generated Network

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A graph G with vertex set $V(G)$ is panconnected if for any two vertices x and y in $V(G)$, there exists a path of length l joining x and y for every l such that $d_G(x,y) \leq l \leq |V(G)| - 1$, where $d_G(x,y)$ represents the distance between x and y in the graph G, that is, the length of the shortest path joining x and y. In this talk, we consider a class of Cayley graphs introduced by Cheng et al. that are generated by certain 3-cycles on the alternating group A_n. These graphs are generalizations of the alternating group graph AG_n. We consider the problem of determining whether this family of Cayley graphs is panconnected