

Strong Matching Preclusion of Generalized Petersen Graphs

E. Cheng, Oakland University and A. Arora*, Novi High School

The strong matching preclusion number of a graph is the minimum number of vertices and edges whose deletion results in a graph that has neither perfect matchings nor almost-perfect matchings. This is an extension of the matching preclusion problem that was introduced by Park and Ihm. The class of generalized Petersen graphs was introduced as a generalization of the Petersen graph. We will discuss the strong matching preclusion of this class of graphs.

Keywords: matchings, interconnection networks, generalized Petersen graphs