Impact of Strong Domination on Connectivity in Fuzzy Graphs

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Abstract*: This study uses membership values of strong arcs in fuzzy graphs to establish the idea of strong dominance number. Bounds for the strong dominance number of fuzzy graphs are derived, and the strong domination number Ys of complete fuzzy graphs and complete bipartite fuzzy graphs are found. Additionally, the correlation between a fuzzy graph's strong dominance number and its complement is examined.*

Keywords: Fuzzy graph, Strong arcs, Weight of arcs, Strong domination