

## **GENERALIZED DEGREE BASED DOMINATION IN GRAPHS**

T. Vidya and B. Chaluvaraju

### **Abstract**

In this article, we initiate a new concept, which is the amalgamation of both domination theory and the degree-based topological indices in the name of a  $k$ -degree based domination related parameters of a graph. Here, we investigate several properties, bounds, and characterizations of these newly introduced parameters.

**Keywords and phrases:** Zagreb index, dominating set, first Zagreb dominating set, first strong Zagreb dominating set, first weak Zagreb dominating set.

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