K - Domination Number of Butterfly Graphs

P. Vijaya Jyothi₁, Indrani Kelkar₂, B. Maheswari₃

1(Department of Mathematics, NBKR Institute of Science and Technology, Vidyanagar, Nellore, India)

2(Department of Mathematics, Acharya Institute of Technology, Bangalore, India) 3(Department of Mathematics, Sri Padmavati Mahila Viswavidyalayam, Tirupati, India)

Abstract: -

Butterfly graphs and domination are very important ideas in computer architecture and communication techniques. We present results about one important domination parameter k-domination Number for Butterfly Graph. We find the relation between domination number and k-domination number for BF (n). In this paper we present results about k-domination number of Butterfly Graphs BF(n). We show that domination number and k-domination number of butterfly graphs BF(n) are related to each other as $\Box_k(BF(n)) > \Box(BF(n))$ except for k = 2 and n = 6.

Keywords:

- Butterfly graph,
- domination number,
- k-domination number