Every dominating set of the smallest possible cardinality is called $\gamma$-set. We consider a graph $\gamma.G$, whose vertices correspond to $\gamma$-sets of $G$, and two $\gamma$-sets $S, S'$ are adjacent in $\gamma.G$ if there exist such vertices $u, v \in V(G)$ that $S = S' \setminus \{u\} \cup \{v\}$ and $u \neq v$.

The notion of gamma graph is different depending on the author. We consider $\gamma$-graph defined by Lakshmanan and Vijayakumar in [3]. Fricke et al. considered a subclass of the class defined above. They required, that the vertices $u$ and $v$ in the adjacency condition are adjacent in the graph $G$. The gamma graph defined in [1] is denoted by $G(\gamma)$.

The results presented in this talk refer to some questions of Fricke et al. [1] about gamma graphs of trees. We will show that $\Delta(T(\gamma)) = \mathcal{O}(n)$ for any tree. We will also present counterexamples which prove that the equality $|V(T(\gamma))| < 2^{\gamma(T)}$ is not true for any tree $T$. We will also say a few words about the diameter of a gamma tree.

**Keywords:** dominating sets, gamma graph, maximal degree, gamma tree.

**AMS Subject Classification:** 05C69, 05C07.

**References**


