

Generalized connected domination in graphs

Kouider, Mekkia; Vestergaard, Preben Dahl

Published in:
Discrete Mathematics and Theoretical Computer Science (Online Edition)

Publication date:
2006

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):
Kouider, M., & Vestergaard, P. D. (2006). Generalized connected domination in graphs. *Discrete Mathematics and Theoretical Computer Science (Online Edition)*, 8(1), 57-64.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Generalized connected domination in graphs

As a generalization of connected domination in a graph G we consider domination by sets having at most k components. The order $\gamma_c^k(G)$ of such a smallest set we relate to $\gamma_c(G)$, the order of a smallest connected dominating set. For a tree T we give bounds on $\gamma_c^k(T)$ in terms of minimum valency and diameter. For trees the inequality $\gamma_c^k(T) \leq n - k - 1$ is known to hold, we determine the class of trees, for which equality holds.