Modified Eccentric Connectivity Index and Polynomial of Corona Product of Graphs

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 132 - Number 9

Year of Publication: 2015

Authors:
Nilanjan De, Sk. Md. Abu Nayeem, Anita Pal

10.5120/ijca2015907536

Abstract

The eccentric connectivity index of a graph is defined as the sum of the products of eccentricity with the degree of vertices over all vertices of the graph, and the modified eccentric connectivity index of a graph is defined as the sum of the products of eccentricity with the total degree of neighbouring vertices over all vertices of the graph. In this study, we find eccentric connectivity index and modified eccentric connectivity index and their respective polynomial versions of corona product of two graphs. Finally, we calculate the eccentric connectivity index and modified eccentric connectivity index of some important classes of chemically interesting molecular graphs by specializing the components of corona product of graphs.

References

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Index Terms

Computer Science Applied Mathematics

Keywords

Eccentricity, topological index, eccentric connectivity index, modified eccentric connectivity index, corona product