Abstract

A graph is said to be minimizing (or second minimizing) in a specific class of graphs if its least eigenvalue of the adjacency matrix acquires minimum (or second minimum) among the least eigenvalues of all graphs in the underlying group of graphs. A connected graph having exactly one cycle is called a unicyclic graph (UG). In this thesis, we characterize the second MG in the connected family of graphs whose complements are unicyclic.