**ABSTRACT**

In this paper we will discuss about Groups Special Mobile (GSM) is a mobile phone network where the geographical area of this network is divided into hexagonal regions or cells. Each cell has a communication tower which connects with mobile phones within the cell. All mobile phones connect to the GSM network by searching for cells in the neighbors. Based on the GSM network, different energies of a graph were analyzed. The energy of a graph is the sum of the absolute values of the Eigen values of the adjacency matrix of the graph.