عنوان مقاله:

Analysis of the Iranian Airport Network by a Complex Network Approach

نویسندگان:

Borhan Asadi - *Department of Computer Engineering and Information Technology, University of Qom, Qom, Iran*

Kheirollah Rahsepar-Fard - *Department of Computer Engineering and Information Technology, University of Qom, Qom, Iran*

Amir Jalaly-Bidgoly - *Department of Computer Engineering and Information Technology, University of Qom, Qom, Iran*

خلاصه مقاله:

In every country, airports are among the most important air transport systems in that country. When an aircraft flies from one airport to another, it creates a graph that can be completed with information about each flight, such as the number of flights per path, the number of passengers, traffic load, and so on. In the present paper, the airports of Iran and the domestic flights are considered as a network and the structure of the network is analyzed, and then the measures of complex networks such as degree distribution, shortest path length, analysis of centralities, clustering coefficient and their correlation and the way these centralities behave are examined. This analysis shows the Iranian Airport Network (IAN) that has a degree distribution described by the power function. The average path length in this network is ۱.۹, and the average clustering coefficient is ۰.۶۹, which meets the characteristics of a small-world network and is also considered an example of a disassortative network. The purpose of this research is to investigate the network of airports in Iran, which is ultimately important for the expansion of airports, and also to identify the important points of airports.

کلمات کلیدی:

Complex Network, Iranian Airport Network, centrality, Correlation

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