GRAPH THEORY IN COMPUTER SCIENCE - AN OVERVIEW

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ABSTRACT

The field of mathematics plays vital role in various fields. One of the important areas in mathematics is graph theory which is used in structural models. We give a survey of graph theory used in computer sciences. The survey consists of a description of particular topics from the theory of graph of the areas of Computer science in which they are used. However, for each described theory we indicate the fields in which it is used (e.g. in modelling and searching Internet, in computer vision, pattern recognition, data mining, multiprocessor systems, statistical databases, and in several other areas). This paper gives an overview of the applications of graph theory in heterogeneous fields to some extent but mainly focuses on the computer science applications that uses graph theoretical concepts. Various papers based on graph theory have been studied related to scheduling concepts, computer science applications and an overview has been presented here.

Keywords: Graphs, network, application of graphs, graph algorithms, bipartite graph etc.