RESEARCH PROPOSAL

TITLE : Graph Theory.

ABSTRACT:

Graph Theory is a branch of discrete combinatorial mathematics that studies graph , which are mathematical structures used to model pairwise relationship between objects.

These structures consist of vectors (or nodes) connected by edges (or arcs).

INTRODUCTION:

Graph Theory is the study of graph data structures, which model object relationship using vertices connected by edges.

It is a helpful tool to quantity and simplify complex systems.

HISTORY:

The first document work in graph theory in attributed to Leonhard Euler in 1736 with his paper on the 7^{th} Bridges of Konigsberg.

METHODOLOGY:

Methodology involves defining a problem as a graph, applying appropriate algorithms to analyse it and interpreting the results within the context of the original problem.

RECENT TRENDS:

Increasing use of graph neural networks advancements in graph embedding techniques and the growing focus on temporal graph analysis and social network analysis.

CONCLUSION:

Graph Theory provides a powerful and versatile framework for analyzing and understanding complex interconnected systems, making it applicable across various disciplines.