ABSTRACT

TOPIC:AN EFFICIENT PROCESSING OF SPATIO TEMPORAL AGGREGATE QUERIES

The recent advances in positioning, telemetry and telecommunication technologies, and with wide availability of devices that produce information about the position of an object in some time, enormous amounts of data about moving objects are being collected and employed by many applications.Moving objects are objects (points) that change their locations (geometric attributes)over time , which requires a higher update frequency.Examples of such devices include mobile phones and devices with embedded GPS or sensor networks.

The paper "An Efficient Processing of Spatio-Temporal Aggregate Queries" addresses the issue of processing queries that aggregate data over both spatial and temporal dimensions. This type of query is commonly used in various fields such as geographic information systems, traffic management, and environmental monitoring. The challenge is to develop an efficient method to process these queries, as they can become complex and time-consuming. The approach involves finding significant locations called the “point of interest from the spatio-temporal data and adding semantic information in it.An algorithm called SemTraClaus is used for identifying and clustering semantic subtrajectories of multiple moving objects.The approach is evaluated through experiments and compared to existing methods. The results show that the proposed approach can significantly improve the processing time and scalability of spatio-temporal aggregate queries.