Abstract

Even though lot of spatio-temporal indexing techniques for moving objects are availed, some more intelligence has been given to the advance of techniques that professionally support queries about the past, present, and future positions of moving objects. This paper proposes the new index structure called POBBx (Parameterized Optimal BBx) which indexes the positions of moving objects, given as linear functions of time, at any time. The index supports queries that select objects based on temporal and spatial constraints, such as queries that retrieve all objects whose positions fall within a spatial range during a set of time intervals. The proposed work reduces lot of searching efforts done by the existing method and minimized time complexity. The simulation results shows that the proposed algorithm provides enhanced performance than OBBx index structure.

References


Index Terms
- Computer Science
- Artificial Intelligence

Keywords
- Moving Objects
- POBBx index
- OBBx index
- Migration and BBx-trees