

ABSTRACT

A system and method for dynamically allocating resources across multiple venues within a venue area are provided. The method includes receiving visitor data corresponding to location and movement patterns and venue data including occupancy levels and available capacity. A predictive computational model processes this data to determine a venue occupancy distribution. Based on the predicted distribution, a venue control instruction is generated to regulate access to one or more venues for a subset of visitors. The venue control instruction is transmitted to at least one venue management system, which processes the instruction to implement access control, queue management, or visitor redirection. This approach optimizes venue utilization, reduces congestion, and enhances visitor experience by enabling real-time adjustments based on predictive analytics. The venue management system is applicable to smart city environments, event management, and large-scale public spaces requiring dynamic visitor flow regulation.

FIG.1