

## **LOCATING, TRACKING, AND/OR MONITORING PERSONNEL AND/OR ASSETS BOTH INDOORS AND OUTDOORS**

### **ABSTRACT OF THE DISCLOSURE**

A system and method for locating, tracking, and/or monitoring the status of personnel and/or assets (collectively “trackees”), both indoors and outdoors, is provided. Tracking data obtained from any number of sources utilizing any number of tracking methods (*e.g.*, inertial navigation and signal-based methods) may be provided as input to a mapping application. The mapping application may generate position estimates for trackees using a suite of mapping tools to make corrections to the tracking data. The mapping application may further use information from building data, when available, to enhance position estimates. Indoor tracking methods including, for example, sensor fusion methods, map matching methods, and map building methods may be implemented to take tracking data from one or more trackees and compute a more accurate tracking estimate for each trackee. Outdoor tracking methods may be implemented to enhance outdoor tracking data by combining tracking estimates such as inertial tracks with magnetic and/or compass data if and when available, and with GPS, if and when available.

FIG. 1