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(54) Title: FIBRE OPTIC SENSING METHOD AND SYSTEM FOR GENERATING A DYNAMIC DIGITAL REPRESENTATION
OF OBJECTS AND EVENTS IN AN AREA

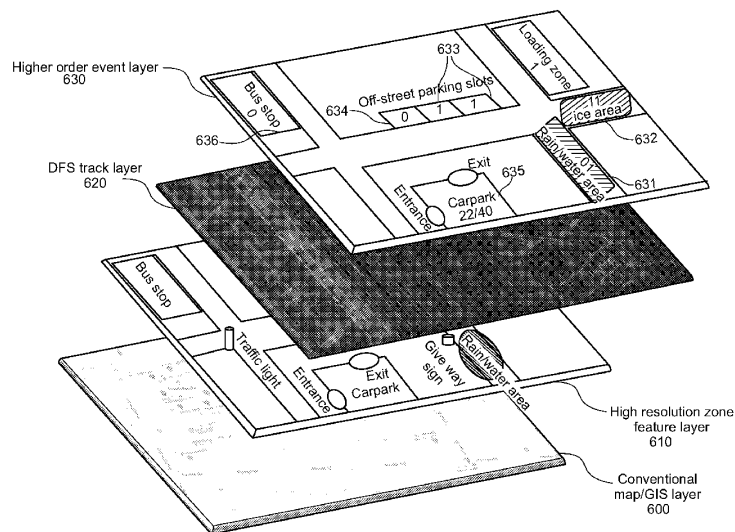


FIG. 2E

(57) Abstract: Described herein is a fibre optic sensing method and system for generating a dynamic digital representation of a plurality of objects and associated zones in a geographic area. In general, the disclosed method and system comprises (a) generating a zone feature dataset, including identifying and classifying the associated zones in the area, each zone being classified into a zone type based on static and/or quasi-static zone features and having at least two object-sensed conditions; (b) generating an object tracking dataset, including tracking signals of at least some of the plurality of objects in the geographic area using a distributed fibre optic sensing network, and processing the tracking signals to obtain object-specific tracking data; (c) generating an event dataset, including using the tracking data to determine when the conditions of the zones are changing; digitizing and storing the changed conditions of the zones;

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and (d) rendering a dynamic representation of the conditions of the zones. The disclosed method and system may be useful to deduce, represent and monitor object type, tracks, events and states of static and/or quasi-static features of the geographic area in a dynamic real-time digital model of the geographic area.