

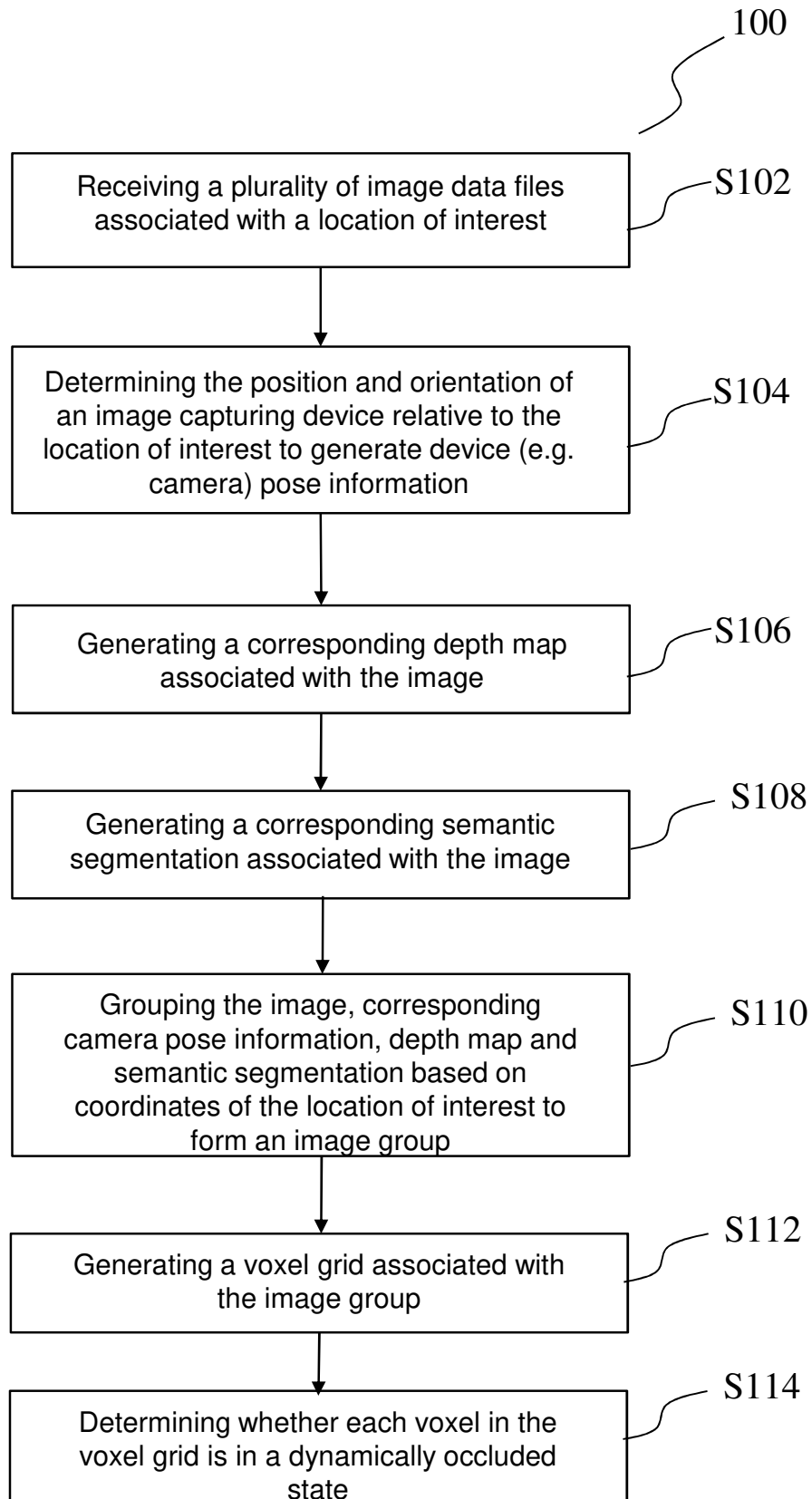


FIG. 1

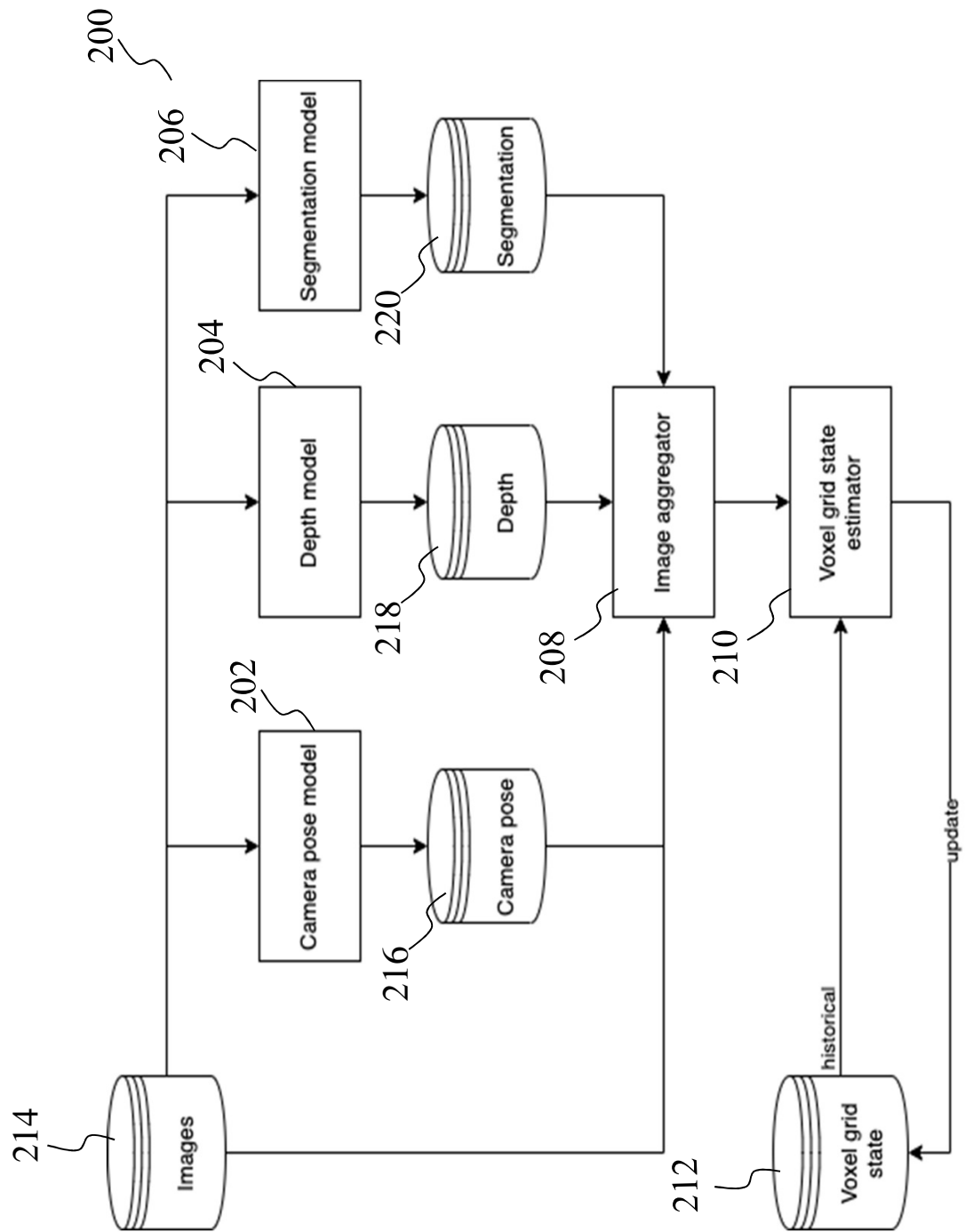


FIG. 2

Algorithm 1: Updating voxel grid state

Input: image group as I , voxel points as V **Output:** voxel grid state arrayInitialize the state array A as a 1D array where every entry is set to UNSEEN; 302**for** every image $i \in I$ **do** 304 $C \leftarrow$ camera model of i ; $S \leftarrow$ segmentation of i ; $D \leftarrow$ depth map of i ; **for** every voxel point $v \in V$ **do** Reproject v to the image plane of C and set the reprojected pixel to p ; 306 **if** p is out of the image border **then** 308

continue;

end $d_v \leftarrow$ the depth of v with respect to C ; $d_p \leftarrow$ the depth of p in D ; $l \leftarrow$ the segmentation label of p in S ; $s \leftarrow$ the state of v in A ; **if** s is UNSEEN **then** Set s to DYNAMICALLY OCCLUDED; 312 **else if** s is VOID **then**

continue;

end **if** $d_v \leq d_p$ **then** 314 Set s to VOID; **else if** l does not belong to dynamic objects **then** Set s to OCCUPIED; 316 **end** **end****end****return** A

FIG. 3

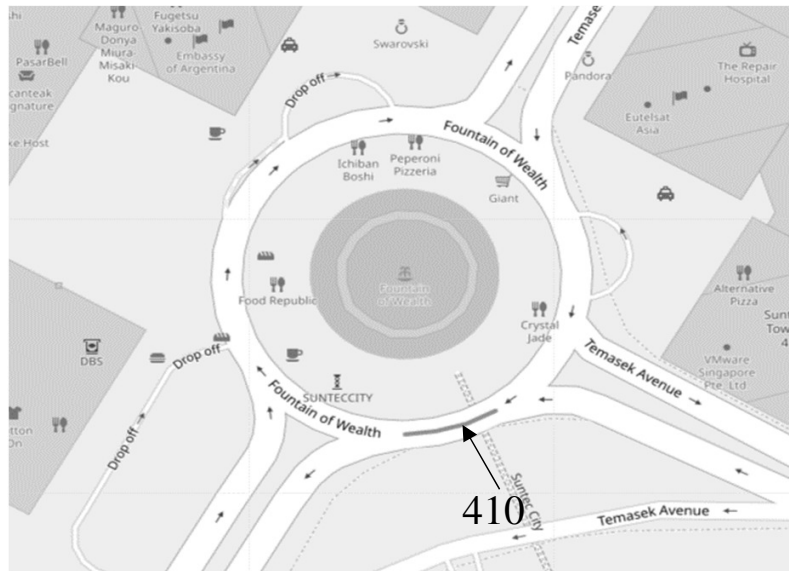
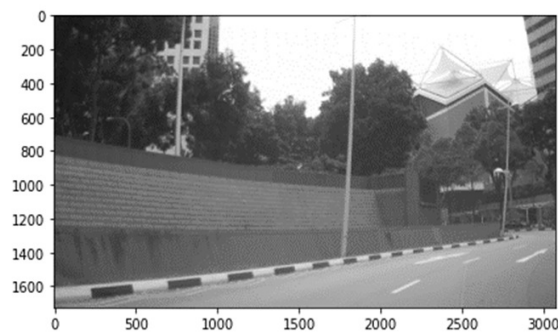
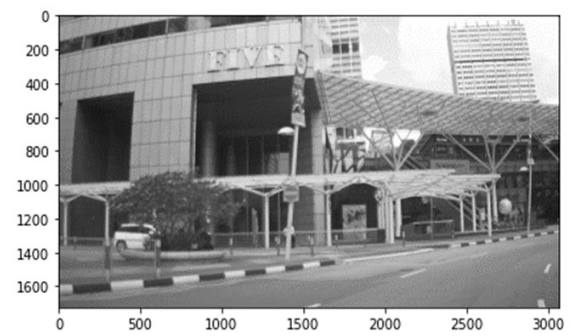


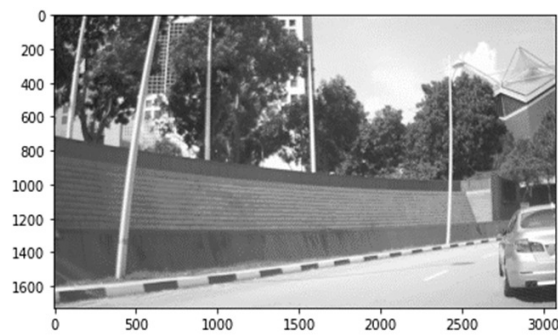
FIG. 4A



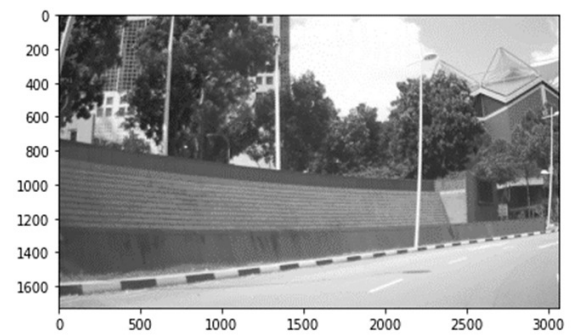
(i)



(ii)



(iii)



(iv)

FIG. 4B

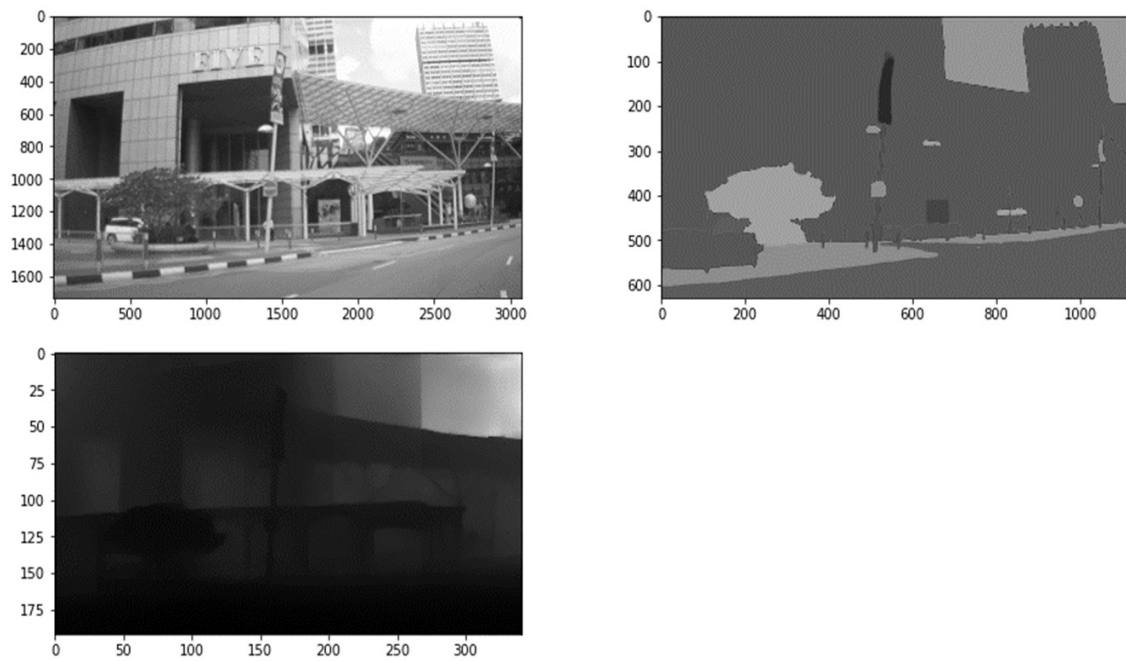


FIG. 4C

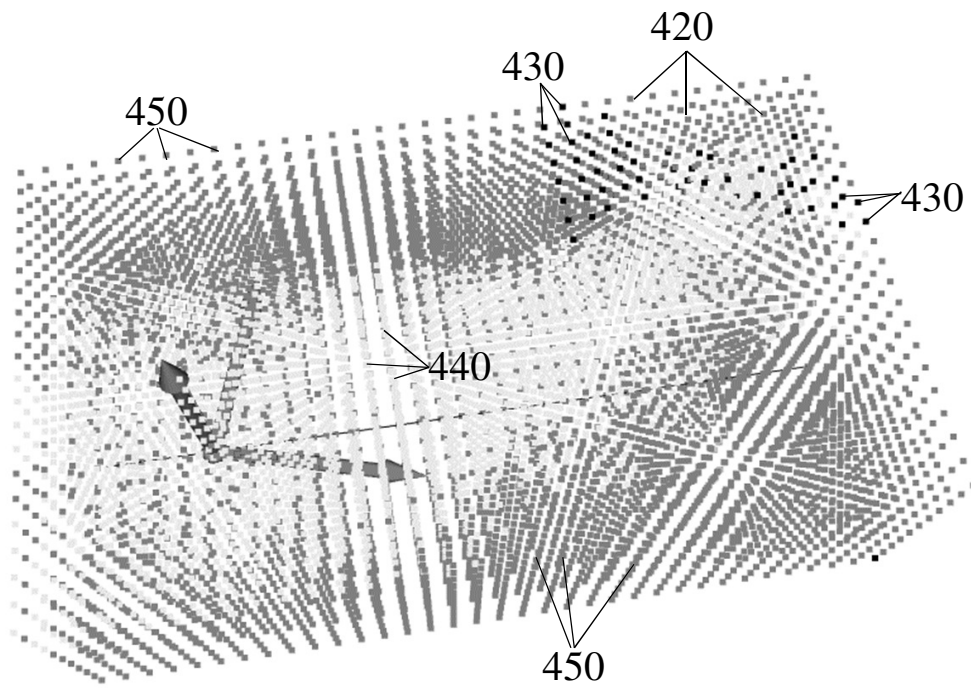


FIG. 4D

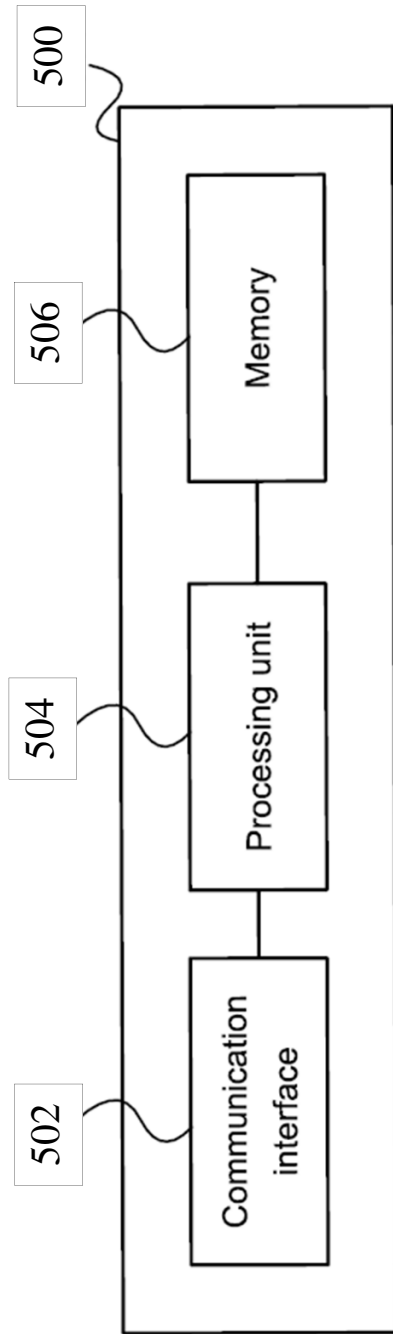


FIG.5