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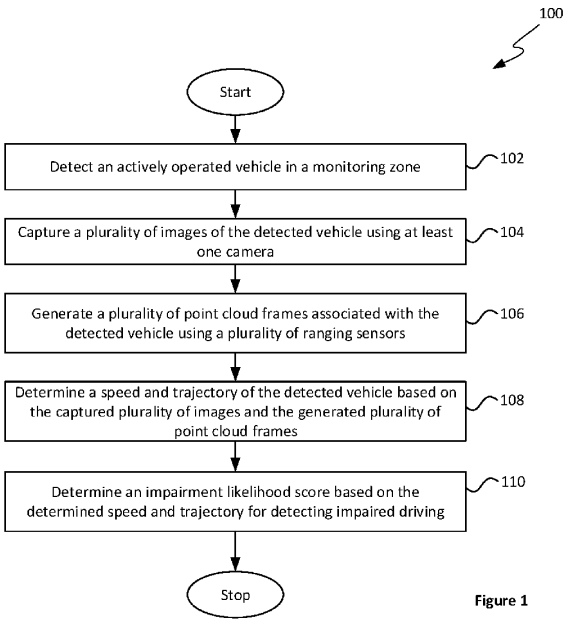


Figure 1

(57) Abstract: A method of detecting impaired driving by a vehicle operator actively operating a vehicle, the method comprising: detecting an actively-operated vehicle in a monitoring zone; capturing a plurality of images of the detected vehicle using at least one camera; generating a plurality of point cloud frames associated with the detected vehicle using a plurality of ranging sensors; determining a speed and a trajectory of the detected vehicle based on the captured plurality of images and the generated plurality of point cloud frames; and determining an impairment likelihood score based on the determined speed and trajectory for detecting impaired driving.

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