

## ***Abstract***

In this paper, a new Smartphone sensor-based algorithm is proposed to detect accurate distance estimation. The algorithm consists of two phases, the first phase is for detecting the peaks from the Smartphone accelerometer sensor. The other one is for detecting the step length which varies from step to step. The proposed algorithm is tested and implemented in real environment and it showed promising results. Unlike the conventional approaches, the error of the proposed algorithm is fixed and is not affected by the long distance.  
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## ***Keywords***

Distance Estimation; Peaks; Step Length; Accelerometer