

ABSTRACT

SYSTEM AND METHOD FOR ANALYZING GAIT AND POSTURAL BALANCE OF A PERSON

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A method and system is provided for finding and analyzing gait parameters and postural balance of a person using a Kinect system. The system is easy to use and can be installed at home as well as in clinic. The system includes a Kinect sensor, a software development kit (SDK) and a processor. The temporal skeleton information obtained from the Kinect sensor to evaluate gait parameters including stride length, stride time, stance time and swing time. Eigenvector based curvature detection is used to analyze the gait pattern with different speeds. In another embodiment, Eigenvector based curvature detection is employed to detect static single limb stance (SLS) duration along with gait variables for evaluating body balance.

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15 *Abstract to be published with Fig. 1*