

ABSTRACT

SYSTEMS AND METHODS FOR QUANTIFICATION OF POSTURAL BALANCE OF USERS IN AN AUGMENTED REALITY ENVIRONMENT

5 Systems and methods for quantification of postural balance of users in an augmented reality
(AR) environment. Traditional systems and methods provide for quantifying the postural balance
using the AR environment but none of them quantify or restrict the functional tasks performed
by the users to a predefined level. Embodiments of the present disclosure provide for the
quantification of the postural balance with a variable step height in the AR environment by
acquiring first set of information comprising of data on skeletal joints, filtering the first set of
10 information for obtaining a filtered set of data, computing the set of postural data based upon the
filtered set of data and quantifying the postural balance based upon the set of postural data by
computing threshold values for obtaining postural stability index scores and determining based
upon the postural stability index scores, the postural balance of the users in the AR environment.

15 << **FIG. 2**>>