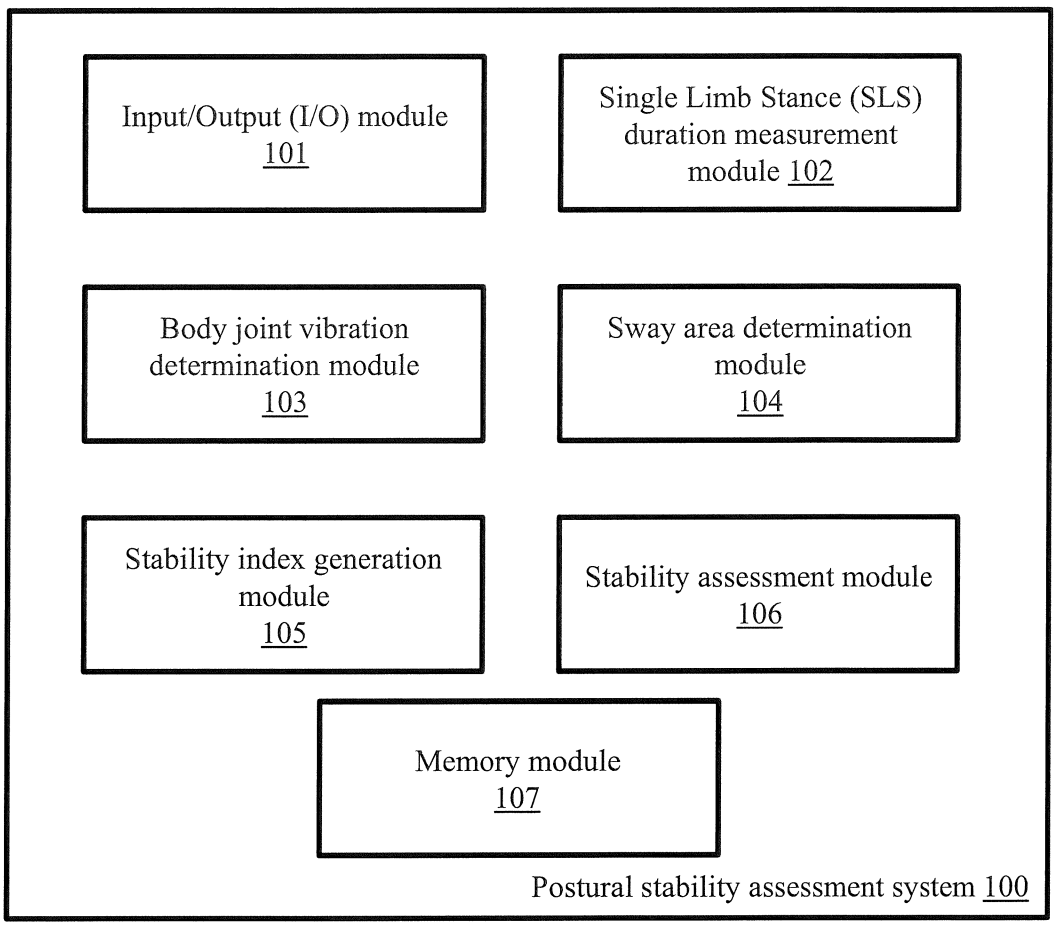
Input/Output (I/O) module
101
Single Limb Stance (SLS) duration measurement module 102
Body joint vibration determination module
103
Sway area determination module
104
Stability index generation module
105
Stability assessment module
106
Memory module
107
Postural stability assessment system 100

Fig. 1

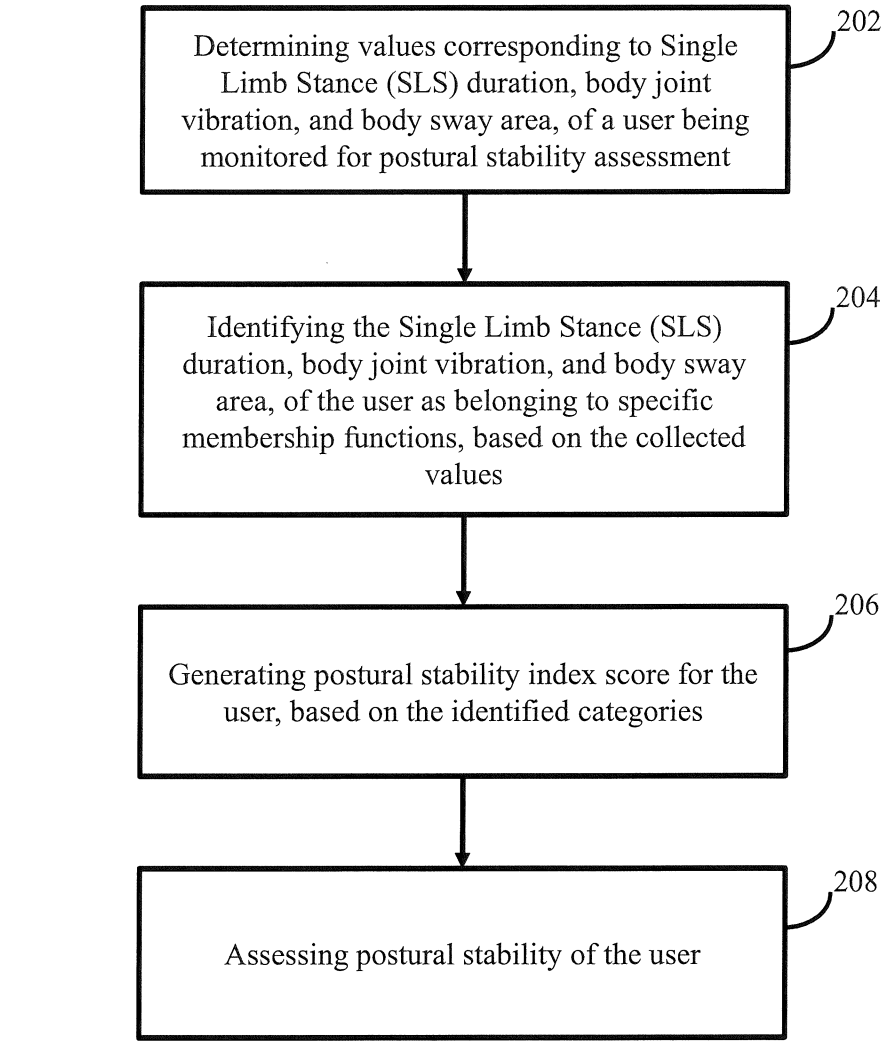
Determining values corresponding to Single Limb Stance (SLS) duration, body joint vibration, and body sway area, of a user being monitored for postural stability assessment
202
Identifying the Single Limb Stance (SLS) duration, body joint vibration, and body sway area, of the user as belonging to specific membership functions, based on the collected values
204
Generating postural stability index score for the user, based on the identified categories
206
Assessing postural stability of the user
208
200

Fig. 2

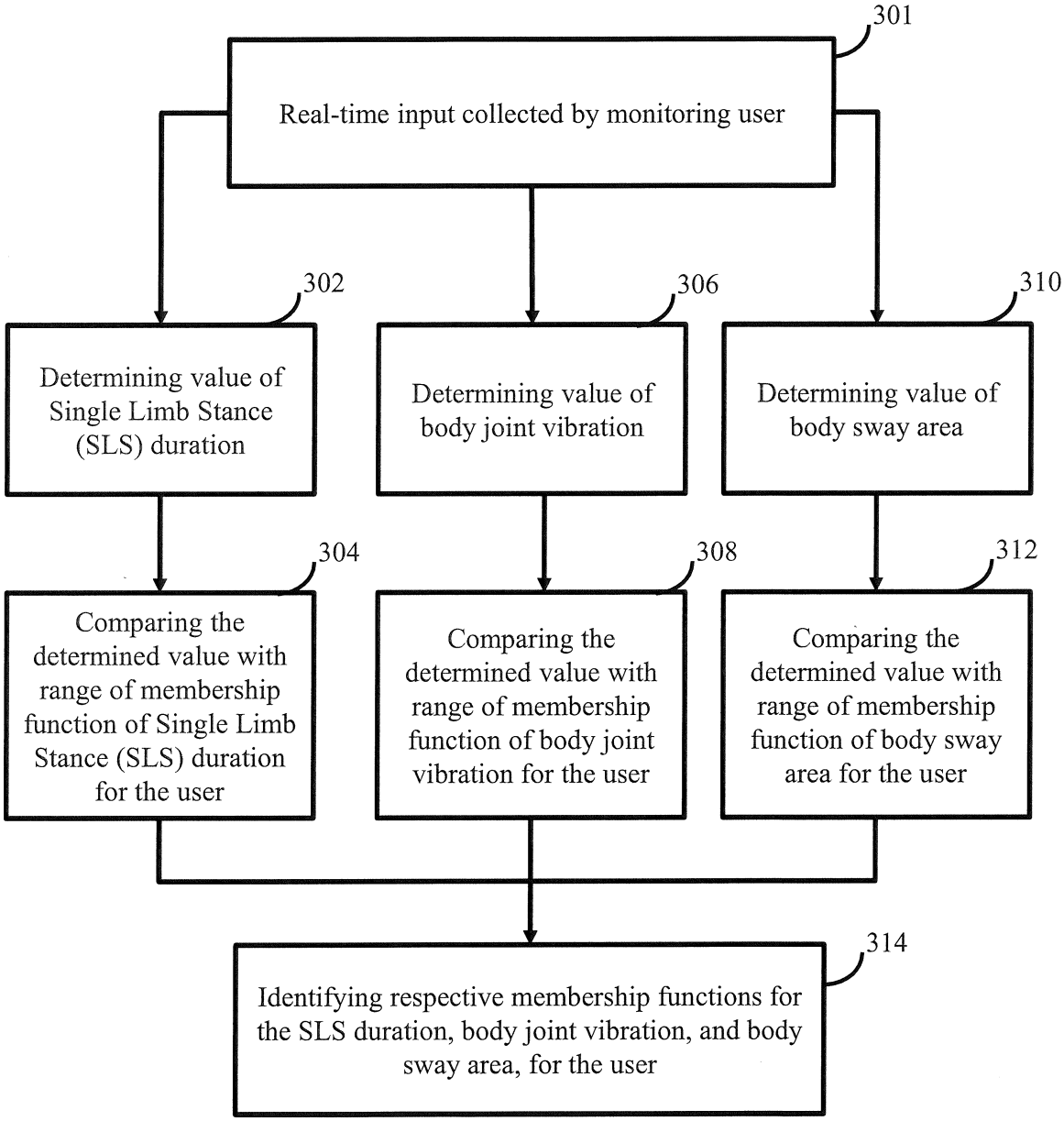
301
Real-time input collected by monitoring user
302
Determining value of Single Limb Stance (SLS) duration
306
Determining value of body joint vibration
310
Determining value of body sway area
304
Comparing the determined value with range of membership function of Single Limb Stance (SLS) duration for the user
308
Comparing the determined value with range of membership function of body joint vibration for the user
312
Comparing the determined value with range of membership function of body sway area for the user
314
Identifying respective membership functions for the SLS duration, body joint vibration, and body sway area, for the user
300

Fig. 3

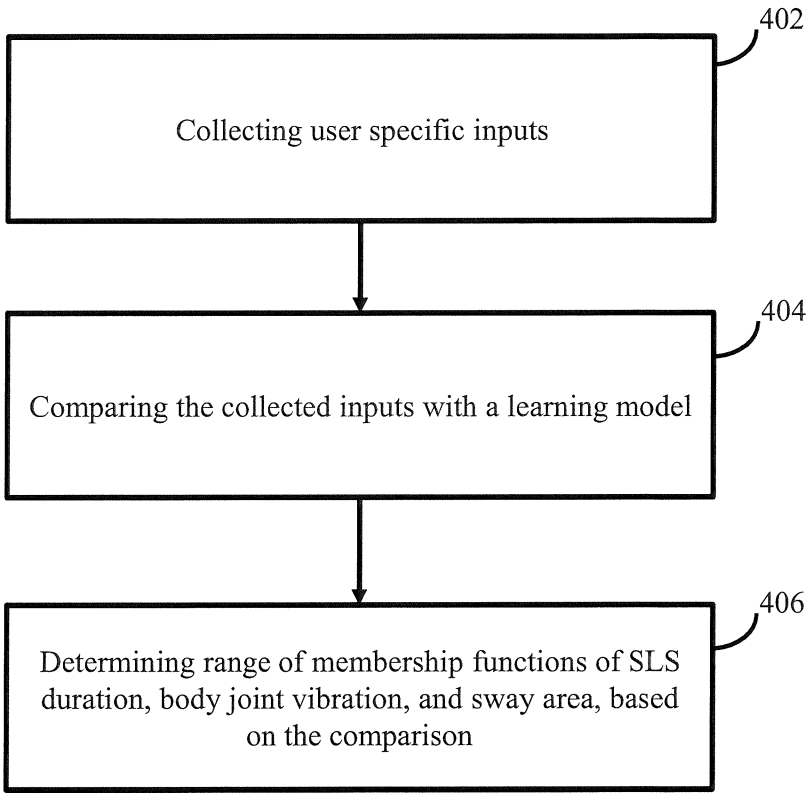
402
Collecting user specific inputs
404
Comparing the collected inputs with a learning model
406
Determining range of membership functions of SLS duration, body joint vibration, and sway area, based on the comparison
400

Fig. 4