Claims

We Claim,

1. A method for processing activity data and determining step count data, the method comprising:

receiving, by a mobile device, activity data from at least two smart wearable devices connected and paired with the mobile device, wherein the smart wearable devices are worn by a user in left and right hands respectively;

segregating, by the mobile device, the activity data into hour-wise activity data;

comparing, by the mobile device, the hour-wise activity data of the at least two smart wearable devices;

identifying, by the mobile device, one or more common hours in which the hour-wise activity data of the at least two smart wearable devices are equal or exhibit gradual increase or gradual decrease, thereby indicating consistent activity patterns across the at least two smart wearable devices;

selecting, by the mobile device, activity data corresponding to the identified common hours and omitting activity data corresponding to hours other than the identified common hours;

determining, by the mobile device, final activity data based only on the activity data corresponding to the identified common hours; and

displaying, by the mobile device, the final activity data to the user on a display.

2. The method of claim 1, wherein determining the final activity data comprises finding, by the mobile device, a minimum activity data from the activity data corresponding to the identified common hours, wherein the minimum activity data is selected as the final activity data on the basis that a smart wearable device worn on a frequently used hand of the user records a comparatively higher step count due to frequent use or movement of that hand for activities including writing, typing, or other hand movements.
3. The method of claim 1, wherein determining the final activity data comprises calculating, by the mobile device, a mean value or an average value of the activity data corresponding to the identified common hours, wherein the mean or average value is selected as the final activity data when one of the smart wearable devices undercounts or does not count during a particular activity duration as identified from the hour-wise activity data.
4. The method of claim 1, wherein determining the final activity data comprises employing, by the mobile device, one or more statistical algorithms or machine learning

algorithms, wherein variance and standard deviation are derived from the activity data corresponding to the identified common hours, and wherein irrelevant hourly activity data is omitted and valid hourly activity data is combined to determine the final activity data.

5. The method of claim 1, wherein the final activity data is at least one of a final step count of the user, a stroke count of the user, or a skipping count of the user.
6. The method of claim 1, wherein at least one of the smart wearable devices notifies the final activity data to the user by at least one of vibration, buzz, or change of color on the display of the smart wearable device.
7. The method of claim 1, further comprising:

receiving, by the mobile device, a first set of information from the at least two smart wearable devices, wherein the first set of information comprises device information and device parameters, and wherein the device parameters comprise a list of sensors with corresponding operating values and threshold values for one or more sensors;

validating, by the mobile device, the device information, and the device parameters;

configuring, by the mobile device, the device parameters of the at least two smart wearable devices to monitor at least one activity of the user, wherein each smart wearable device is set with device configuration details comprising a sensor name and a corresponding threshold value; and

sending, by the mobile device, the device configuration details to the respective smart wearable devices, wherein the configured device parameters enable generation of activity data suitable for segregation into hour-wise activity data, comparison across the at least two smart wearable devices, and identification of the common hours for determining the final activity data.

8. A system for processing activity data and determining step count data, the system comprising:

a first smart wearable device configured to be worn on a left hand of a user and to independently monitor at least one activity of the user and generate a first activity data;

a second smart wearable device configured to be worn on a right hand of the user and to independently monitor the at least one activity of the user and generate a second activity data; and

a mobile device configured to receive the first and the second activity data from the first and second smart wearable devices, wherein the mobile device comprises a mobile application configured to:

segregate the activity data into hour-wise activity data;

compare the hour-wise activity data of the first and second smart wearable devices;

identify one or more common hours in which the hour-wise activity data are equal or exhibit gradual increase or gradual decrease;

select activity data corresponding to the identified common hours and omit activity data corresponding to hours other than the identified common hours;

determine final activity data based only on the activity data corresponding to the identified common hours; and

display the final activity data to the user on a display of the mobile device.

9. The system of claim 8, wherein the mobile application is further configured to find a minimum activity data from the activity data corresponding to the identified common hours, and to select the minimum activity data as the final activity data on the basis that a smart wearable device worn on a frequently used hand of the user records a comparatively higher step count due to frequent use or movement of that hand for activities including writing, typing, or other hand movements.
10. The system of claim 8, wherein the mobile application is further configured to determine the final activity data using one or more statistical calculations including at least one of mean, average, variance, or standard deviation derived from the activity data corresponding to the identified common hours.