Claims

We claim:

1. A method for monitoring emotions of a user, the method comprising:
   monitoring at least one physiological parameter of the user when the user is in a normal condition, to determine a threshold value of the at least one physiological parameter of the user;
   monitoring voice profile and speech pattern of the user when the user is in the normal condition, to determine a normal voice profile and identify a normal speech pattern of the user respectively;
   generating normal face profile of the user, wherein the normal face profile comprises a plurality of emotions-based characteristics of the face;
   determining a current value of the at least one physiological parameter, a current voice profile and a current speech pattern of the user, and a current face profile of the user using at least one image capturing and voice processing device; computing an emotional index of the user using the current value and the threshold value of the at least one physiological parameter, the current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively, the current face profile with the normal face profile; and identifying at least one emotion of the user based on the emotional index.
2. The method as claimed in claim 1, further comprising:
   receiving an input pertaining to co-ordinates of a geographical location;
   identifying a plurality of users residing within a predetermined area of the geographical location, where the plurality of users are subscribers of an application server to assist in determination of the emotional index of the geographical location; computing the emotional index of each user of the plurality of users; and determining the emotional index of the geographical location based on the emotional index of each user of the plurality of users.
3. The method as claimed in claim 1, further comprising:
   measuring current level of skin conductance of the user; associating a predefined weightage with the measured current level of the skin conductance to generate a first value; adding the first value within the computed emotional index.
4. The method as claimed in claim 1, wherein identifying at least one emotion of the user based on the emotional index comprises: computing a mean value of the emotional index for a predetermined number of days; defining at least three ranges based on the mean value of the emotional index; and identifying the at least one emotion of the user in accordance with the at least three ranges.
5. The method as claimed in claim 1, further comprising:
   determining information regarding a number and a type of words or phrases spoken by the user, decibel value, speed of speech while exhibiting the at least one emotion in the normal speech pattern; and computing the current speech pattern in accordance with the number and the type of words or phrases spoken by the user.

6. The method as claimed in claim 1, wherein computing an emotional index of the user comprises:
comparing the current value and the threshold value of the at least one physiological parameter to determine a first value, current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively to determine a second value, the current face profile with the normal face profile to determine a third value; associating with the first value, the second value and the third value respective weighing factors; and computing the emotional index using the first value, the second value, the third value and the respective weighing factors.
7. The method as claimed in claim 1, further comprising: notifying to at least another user regarding the at least one emotion of the user.
8. The method as claimed in claim 1, further comprising: initiating at least one preventive action based on the emotional index of the user.
9. A system for monitoring emotions of a user, the system comprising: at least one sensor configured to monitor at least one physiological parameter of the user when the user is in a normal condition to determine a threshold value of the at least one physiological parameter of the user;
a voice profiler configured to monitor voice profile and speech pattern of the user when the user is in the normal condition to determine a normal voice profile and identify a normal speech pattern of the user respectively; a face pattern recognizer configured to generate a normal face profile of the user, wherein the normal face profile comprises a plurality of emotions-based characteristics of the face; a controller configured to determine a current value of the at least one physiological parameter, a current voice profile and a current speech pattern of the user, and a current face profile of the user using at least one image capturing and processing device; an emotional index calculator configured to compute an emotional index of the user using the current value and the threshold value of the at least one physiological parameter, the current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively, the current face profile with the normal face profile; and an emotion identifier configured to identify at least one emotion of the user based on the emotional index.
10. The system as claimed in claim 9, wherein the emotional index calculator is further configured to:
compare the current value and the threshold value of the at least one physiological parameter to determine a first value, current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively to determine a second value, the current face profile with the normal face profile to determine a third value;
associate with the first value, the second value and the third value respective weighing factors; and compute the emotional index using the first value, the second value, the third value and the respective weighing factors.

Claims

We claim:

1. A method for monitoring emotions of a user, the method comprising:

monitoring, by at least one physiological parameter sensor (402), at least one physiological parameter of the user when the user is in a normal condition, to determine a threshold value of the at least one physiological parameter of the user;

monitoring, by a voice profiler (404), voice profile and speech pattern of the user when the user is in the normal condition, to determine a normal voice profile and identify a normal speech pattern of the user respectively;

generating, by a face pattern recognizer (406), normal face profile of the user, wherein the normal face profile comprises a plurality of emotions-based characteristics of the face, characterized in that:

determining, by a controller (408), a current value of the at least one physiological parameter, a current voice profile and a current speech pattern of the user, and a current face profile of the user using at least one image capturing and voice processing device, wherein the current speech pattern is calculated on basis of the number, the type of words or phrases spoken by the user, change in decibel value, speed of speech, change in language;

computing, by an emotional index calculator (410), an emotional index of the user using the current value and the threshold value of the at least one physiological parameter, the current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively, the current face profile with the normal face profile, wherein computing, by the emotional index calculator (410), the emotional index of the user comprises:

comparing the current value and the threshold value of the at least one physiological parameter to determine a first value, current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively to determine a second value, the current face profile with the normal face profile to determine a third value;

associating with the first value, the second value and the third value respective weighing factors; and

computing the emotional index using the first value, the second value, the third value and the respective weighing factors; and

identifying, by an emotion identifier unit (412), at least one emotion of the user based on the computed emotional index.

2. The method as claimed in claim 1, wherein the method comprising:

receiving an input pertaining to co-ordinates of a geographical location;

identifying a plurality of users residing within a predetermined area of the geographical location, where the plurality of users are subscribers of an application server to assist in determination of the emotional index of the geographical location;

computing the emotional index of each user of the plurality of users; and

determining the emotional index of the geographical location based on the emotional index of each user of the plurality of users.

3. The method as claimed in claim 1, wherein the method comprising:

measuring current level of skin conductance of the user;

associating a predefined weightage with the measured current level of the skin conductance to generate a first value;

adding the first value within the computed emotional index.

4. The method as claimed in claim 1, wherein identifying at least one emotion of the user based on the emotional index comprises:

computing a mean value of the emotional index for a predetermined number of days;

defining at least three ranges based on the mean value of the emotional index; and

identifying the at least one emotion of the user in accordance with the at least three ranges.

5. The method as claimed in claim 1, wherein the method comprising:

determining information regarding a number and a type of words or phrases spoken by the user, decibel value, speed of speech while exhibiting the at least one emotion in the normal speech pattern; and

computing the current speech pattern in accordance with the number and the type of words or phrases spoken by the user.

6. The method as claimed in claim 1, wherein the method comprising:

notifying to at least another user regarding the at least one emotion of the user.

7. The method as claimed in claim 1, wherein the method comprising:

initiating at least one preventive action based on the emotional index of the user.

8. A system for monitoring emotions of a user, the system comprising:

at least one physiological parameter sensor (402) configured to monitor at least one physiological parameter of the user when the user is in a normal condition to determine a threshold value of the at least one physiological parameter of the user;

a voice profiler (404) configured to monitor voice profile and speech pattern of the user when the user is in the normal condition to determine a normal voice profile and identify a normal speech pattern of the user respectively;

a face pattern recognizer (406) configured to generate a normal face profile of the user, wherein the normal face profile comprises a plurality of emotions-based characteristics of the face characterized in that:

a controller (408) configured to determine a current value of the at least one physiological parameter, a current voice profile and a current speech pattern of the user, and a current face profile of the user using at least one image capturing and processing device, wherein the current speech pattern is calculated on basis of the number, the type of words or phrases spoken by the user, change in decibel value, speed of speech, change in language;

an emotional index calculator (410) configured to compute an emotional index of the user the current value and the threshold value of the at least one physiological parameter, the current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively, the current face profile with the normal face profile, wherein the emotional index calculator (410) configured to:

compare the current value and the threshold value of the at least one physiological parameter to determine a first value, current voice profile and the current speech pattern of the user with the normal voice profile and normal speech pattern of the user respectively to determine a second value, the current face profile with the normal face profile to determine a third value;

associate with the first value, the second value and the third value respective weighing factors;

compute the emotional index using the first value, the second value, the third value and the respective weighing factors; and

an emotion identifier configured to identify at least one emotion of the user based on the emotional index.