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Monitoring and Analysis of Stress Based on Human Aura

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***Abstract*—Human Biofield is a crucial parameter for the monitoring and detection of stress. Human Biofield is also termed as "Human Aura". Since ancient times Aura is a parameter which can not only be used for stress detection but also after ailments in human body. In this paper, we focused on monitoring and detection of stress using human Aura. The Aura is measured by Gas Discharge Visualization (GDV) using 10 fingers tips. Anxiety, Energy level, Balance and organ Disbalance are the parameters we measured in first part. We measured these parameters at three-time states. At current/normal state, second state is relaxation state and third is after exercise. In Second part we measured Chakra Alignment. We observed that Stress and Chakra alignment are strongly related to each other. More the stress higher the misalignment. Secondly more the stress higher the anxiety level, lower energy level, lower balance and higher the organ disbalance.**

Keywords—Stress, Human Aura, Biowell Camera, GDV

I. *INTRODUCTION*

Human Aura or sometimes it is called as human biofield is nothing but the energy which surrounds human body. It is also known as bio-electric field or human field. People with proper training are able to see the Human aura around the human body. Many researchers have reported of the human aura around the body of a person. Human Aura is nothing but the energy of a person which other person can feel when they come in contact with the people.

Consider an example where a person is interacting with highly saintly person or visiting very holistic place, he feels energetic; energy of the same person is found to be increased. On the other hand, if the same person is told to visit morgue, crematoriu, or place where people are too much drunk, the energy of the person will go to low or he feels low. The feeling of energetic or de-energetic at place, in presence of person is nothing but feeling of Aura. Different colors are associated with the human aura of a person. Black, Blue, White, Red, Orange, Yellow or Golden Yellow, Green, Violet and Pink are the various colours related by the aura of a human which depicts different health status of the human. E.g. a black aura suggests a stressed person whereas Red aura suggests an aura of anger. From the visualization of color of an Aura of a human will be able to know the current health of a person. If this technique is repeatedly used one may be able to project any problems related to his or her health.

There are 7 chakras found in human body which is belief of many energy healers. The seven chakras are related with the different body parts of the human. They start with the head and go to bottom. The chakra related to head is called as crown chakra or shahasrara and is located at the centre of the uppermost part of the head. It is associated with the Pineal gland. The bottom chakra is known as root chakra and is situated in the perineum region. It is linked to Adrenal Gland /Suprarenal Gland and Sacral Plexus. Also connected to skeletal system. Depending upon the position of chakras we will be able to tell the personality of a person and we can check if a person has any problem related to his health. Ancient energy healers have used their energies to help increase positive energy of an individual through proper setup.

The researcher tried to measure this presence of Aura around the human body using different tools and techniques. The well-established method of measuring human aura is Kirlian photography or photographic phenomenon. It involves high voltage and high frequencies. It uses Gas Discharge Visualization (GDV) cameras. Along with sophisticated packages of software one can to do the analysis of human aura using above concept.

Every person in the world feels stressed in his routine daily life. One cannot run from the stress. Feeling of stressed is sometimes good to get the work done in timely manner. But the same stress put on continuously can lead to different problems in the human life. It ranges from small health problems like anxiety, depression to very severe problems like mental disorder, heart diseases or even sometimes death. The stress which let us do our work in efficient manner, in given dead lines is called as positive stress, good stress. The positive stress has to be there in life so that we will do our duties in more structured or streamlined manner. There are different levels of stress present. The stress can have various effects depending upon the type of stress and level of the stress.

The various reasons of stress in human can be dependant on different factors. E.g. A student can have different type and level of stress at exam time and different type when he faces an interview. A working professional may have different type of stress at different stages of day and work. The major and general causes of stress for a working person are work pressure, deadlines, role conflicts, work overload or underload, organizational changes, lack of support by management and lack of group cohesiveness.

There are other symptoms like emotional, psychological and physiological symptoms which are given below. The various symptoms of stress shown by body includes anxiety, muscle tension, stomach problems, headaches, problems related to concentration, anger, fatigue and teeth grinding. To deal with stress problems or with stress there are different techniques used. Sound therapy in term of music, yoga or exercise are few techniques used as preventive measure for stress or related problems.

The paper is an attempt to connect the stress in working people through a new concept called as Human Aura or Biofield which is measured through Biowell camera device. The method is used by alternative medicine therapist in entire world.

The organization of paper is given here. We will explain review of literature, methodology, result and discussion and finally future work.

II. LITERATURE REVIEW

In the last few years researchers has found way to enter into this new concept of human biofield, human aura of electromagnetic field surrounding body [4] [9] [12] [14]. The human biofield can be measured by using Kirlian image photography which was developed by group of Russian scientists headed by Korotkov [16]. Different methods used for Stress detection and analysis are summarized in the [1]. Now days more sophisticated devices are used for measurement of human biofield or aura. Electro Photonic Imaging (EPI) and Gas Discharge Visualization (GDV) [11][16][17] [18] technique is used for measuring human biofield. Bio Well camera along with complex software's are used for detection and analysis of human aura. Image processing-based technique was used to detect the human biofield. Aura Image was captured by using high definition digital camera. [2] Aura imaging device Aurastar for measurement of effects of Reiki on chakras [22] was used by Balaji Tambe and his team. For measurement of ayurvedic body type ayurvedic prakriti analysis was done. For imaging aura star imaging system was used. Different Computer software programs were used [17] [21].

The stress measurement can be done in different ways. We can divide the work in basic two types. In first, sensor mechanism is used to measure the stress developed in the human body. In second, mobile phone data of social websites are used for finding stress. Few of the researchers worked on non-contact camera for measurement of a stress.

3D accelerometer, photoplethysmography (PPG), electrodermal activity (EDA), heart rate (HR), skin temperature (ST), Respiration Rate (RR), blood volume pulse (BVP), Systolic Blood Pressure (ABPSys), Bio signals such as Electromyography (EMG), electrocardiography (ECG), electroencephalogram (EEG) [5][6][15] and galvanic skin response (GSR) were used for detection and measurement of stress. The researchers have used various classification algorithms to classify the data received from sensors listed above. Multilayer perceptron (MLP), Support Vector Machines (SVM), Linear Regression Algorithms (LRA), Naïve Bayes, Principal Component Analysis (PCA), K-Nearest Neighbours (KNN)., Random Forest, Artificial Neural Networks (ANNs),

In another part researchers have used social behaviour studies of human's for detection and analysis of stress. For the same they have used smart phones data in terms of usage of social media applications such as Facebook, WhatsApp, Twitter and Instagram. They have also used sensors of the mobile phone like accelerometer [13] along with some applications used in the mobile phones [6] [11].

For analysis purpose the different techniques and algorithms used. Yuhao Shan et al. (2020) in their paper [2] used SVM classifier for testing and training the data dets used for experiments. They have used different test viz. baseline test, relaxation test, physical stress test and physiological stress test. They have used accuracy of recognition above 89% and 93% of physiological and physical stress test result. Frequency radiation characteristics of human body was used for gender-based classification in [18]. Here statistical analysis was done by using Multivariate analysis of variance (MANOVA). KNN classifier along with space distance criteria was used for classification. Different training to testing ratios were used in this method. 13 body points out of 23 which were considered for classification of gender are needed for classification.

Stress level measurement done by using speech analysis when people facing Human Resources (HR) screening interview as mentioned in [23]. Features like MFCC (Mel-Frequency Cepstral Coefficients) were used for classification in machine learning method used here. For training and testing different data set classification models were used. The analysis was done for total of 5 emotions. Out of five, 3 emotions were successfully classified with 90% accuracy. The classified emotions are anger, sadness and stress where as other emotions were not classified.

An image processing technique mentioned in [3] was used for human biofield detection. An algorithmic approach was used for image processing. Image enhancement was done image pre-processing and image denoising. A new color space was developed for display of human biofield energies. By using this method one can be able to understand personal health issues and one come can become aware of one's own health. Use of high sophisticated software in analysis of anxiety and perceived stress by Dr. Korotkov in his paper. In this paper author discuses about human energy field along with Chakras.

An instant method of stress detection was mentioned in [6]. In this paper photoplethysmography (PPG) was used along with thermography for quality detection of stress. This kind of method can be used for mobile mental health care solutions. 78% of higher accuracy was achieved by using combined methodology over others with individual methods have accuracies of 68% and 58%.

A machine learning approach was used by [7] for detection stress at various stages. EEG signal analysis of participants who were under stress was carried out for the recognition of psychological stress. The stress was induced by using, mental arithmetic task (MAT), which is part of montreal imaging stress task (MIST), through computer. Scrutiny of subject was done by using perceived stress scale (PSS). Feature extraction, selection, classification and validation was done through machine learning network. 93% result was achieved for multi-level identification.

In [10] author demonstrated the viewing of human Aura through proper guidance. Their pre and post understandings were recorded for analysis. Chi-square test along with contingency test was used for getting result. The 94% of participants claimed that they can see presence of human aura surrounding the human body. Large number of patients were

developed to detect the presence of human aura or bio field using different methods.

III. METHODOLOGY

Detection of stress of human, we have used Bio-Well GDV Camera, 2.0 which works on the principal of Gas discharge visualization (GDV). GDV Technique is that the computer recording and study of electro-photonic emissions of various things, together with organic (precisely the human fingers) resulting from placing the thing within the high-intensity electromagnetic field on the device lens. When a scan is taken, a small amount of electrical current is applied to the fingertips for fraction of the second. The body's reaction to the present stimulus is that the creation of a variation of an "electron cloud" composed of sunshine energy photons. The electric radiance of this release, is captured by the photographic camera arrangement then translated and transmitted back in graphical illustrations to point out stress evaluations. The camera comes with sophisticated software's for the analysis. The software provides in depth analysis of different parameters along with stress level of human being. We have used Bio well analysis because it allows to define body part and systems of the body which need attention; Makes assessment of the follow up response of the body to different influences (treatments, emotions, mobile phone, etc.); Provides information on psycho-emotional state and level of stress (anxiety); Allows easily measure response of the body to different medications, supplements and food.

The following figure shows the setup used for measurement of stress using Biowell GDV camera.

Fig 1. Experimental setup used

In this method, a Bio well device camera is connected to laptop using USB cable. The laptop is loaded with the software used to do the analysis of received data. For measurement of stress we used finger tip of the human hand. The procedure used is given below for measuring stress.

1. The connection was done as per set up and Biowell camera is connected to laptop.

2. After establishing connection between laptop through software with camera, we have to calibrate the device.

3. Then we have to put our fingertip through the opening in the camera device such that it will touch the inner glass lightly not putting pressure on device glass lens.

4. Then we will scan the fingertip by pressing the scan tab in the software.

5. It will give the graphical representation of stress in the software.

All ten fingers of the hand were scanned to get their representation. A sample representation of scan of finger is shown below. After the scanning the software provides different analysis in parameters such as Stress, Energy, Balance and Organ disbalance.

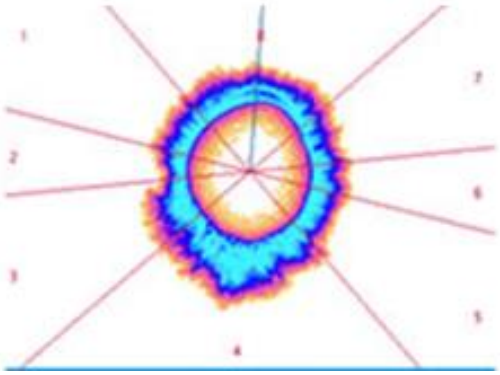

Fig. 2 Scan of a finger tip

The scan gives us human energy field. Human Energy Field is the utmost sensitive replication of the spiritual, physical, and in some cases, emotional state of a person. The following figure gives such human energy field from which we can easily get to know the human health.

Fig 3a shows human energy field of an unhealth person. The field is not continuous, also there are lot of ups and down can be seen from the field. The field is breaking at lot point indicating the nature of health of a person. These are nothing but the problems related to the spiritual, emotional and physical condition of a human. Fig 3b shows human energy field of a healthy human. The field is full, continuous and there are very few points where it looks breaking.

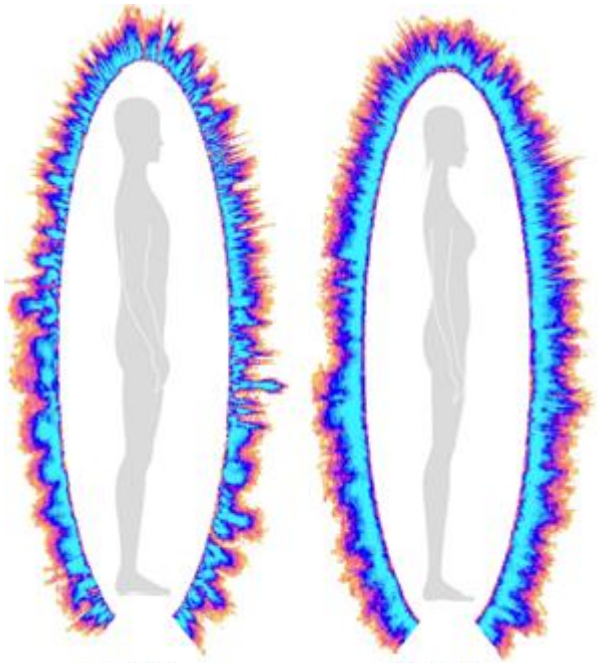

Fig 3 a Fig 3 b

Fig 3 a and Fig 3 b showing human energy field of unhealthy and healthy human respectively

The experiment part is divided into two parts. In first part we have worked to do the validity of Bio-well device for stress measurement. In the second part we have analyzed more cases to support our experimental aim.

The experiment was performed on 20 volunteers who were working in the same place as author. The volunteers were both male and female. The middling age of them was 35 years with age ranging from 25 to 53 years. At the start we have considered five test samples. Out of five 3 were males and two were females. All volunteers were told about the research study. The scanning of test samples was done in following manner. At first scan was performed to know the stress of each person. This value is taken as normal value S_1. Then the participants were told to meditate or do some relaxation activity for 60 minutes and again their stress value was measured which was labelled as S_2. In the next part they were told to do some exercise to put the body through stress for 30 minutes. Once again, the reading of stress was taken and labelled as S_3. The result was given in table 1. A scan of a person was shown below elaborates the different parameters shown by software.

Fig. 4 Analysis showing different parameters

In second part remaining 15 volunteers taken part in the experimentation. Their different parameters viz. stress, balance, energy, organs disbalance along with Chakras were used for analysis.

Sample Participant	Stress Values at different Conditions		
	S1 (After Relaxation)	S2 (At normal)	S3(After Exercise)
P1	2.82	3.12	3.84
P2	2.95	3.23	3.56
P3	2.8	2.96	3.31
P4	2.78	3.06	3.63
P5	2.61	2.74	3.11

Table. 1 Stress values of participants at different conditions

IV. RESULT AND DISCUSSION

Table 1 shows stress values at different conditions of five participants. The participants named as P1, P2, P3, P4 and P5. All the participants' values after relaxation are less than that of before relaxation values. After performing physical exercise, the participants obtained values are more than what they were before exercise. This clearly indicates that values of stress are decreased after relaxation and increases after exercise which means our device can detect the presence of stress in human body. Here we have used human aura based Biowell camera. Hence, we can conclude that stress can be detected from human aura. After the analysis, the healer discussed the analysis of participant's results of scan along with their health and gave some valuable tips to them.

The following table gives the different parameters collected through scanning.

	Stress Level	**Energy Level**	**Balance Level**	**Organs Disbalance %**
P1	3.13	53.88	94.21	5.3
P2	2.96	51.93	99.2	1.27
P3	3.12	52.5	98.16	2.01
P4	3.02	52.47	97.32	1.52
P5	2.74	48.63	98.47	0.21
P6	3.71	55.97	99.97	0.12
P7	3.2	48.25	93.43	4.52
P8	3.02	54.84	97.85	3.52
P9	3.04	54.96	99.85	2.58
P10	3.74	49.92	93.38	4.08
P11	3.43	51.38	95.24	3.42
P12	4.76	49.01	94.36	2.98
P13	2.76	51.24	93.96	1.96
P14	3.12	50.57	92.27	2.86
P15	3.23	48.73	95.07	3.11

Table. 2 Collected parameters for all participant

The above table shows stress level, energy level, balance level and organ disbalance percentage. Stress which characterizes the level of stress, response to the inner and external effects, and is measured in comparative units from 0 to 10, where 10 resembles to the maximum level of stress. Energy which demonstrates the energy of the radiance for the particular person in Joules ($\times 10^{-2}$). Level of inequality amongst total energy of the glow of segments present on both hands. It is offered in % of deviation from the average value of 2 hands and is straight linked with the "Balance" graph. Left hand is associated with the right brain hemisphere and with activation/excitation processes. Right hand is associated with the left-brain hemisphere and slowing down/ energy saving processes.

To understand the behavior of the data we have taken average, median of data. From the data we can clearly see the lowest value of stress is shown by participant 5 and highest value of 4.76 by participant 12. The stress values have mean of 3.265, mean energy level of 51.619, mean balance level of 96.183 and mean level of organ disbalance of 2.631.

The levels associated with stress are given as; 0-1 as Calm, 2-3 as optimal, 3-4 as Anxiety, 4-6 medium, 6-8 as heightened and 8-10 as Distress. From above table we can clearly see that participants 2,5 and 13 have optimal values of stress while particpants has shown maximum level of stress in medium range while all other particpants lie in anxiety category.

The energy level of all participants falls into optimal category which suggest that all are having good energy level of the body. On similar basis balance level is in the range of optimum value. Organ disbalance of all participant found to be in optimal range except participant P1 which shows lower medium value suggesting that we need to take more scans or deeper analysis of participant P1 to find out the lying problem.

The following figure shows graphs of all the data of table 2 in sequence.

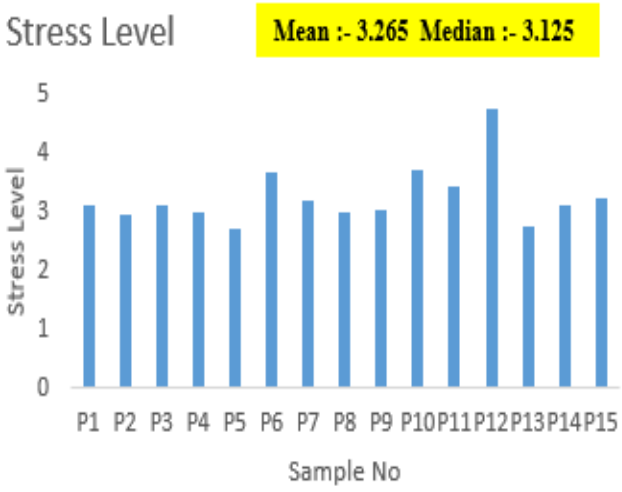

Fig. 5 Stress level of all participants with mean and median

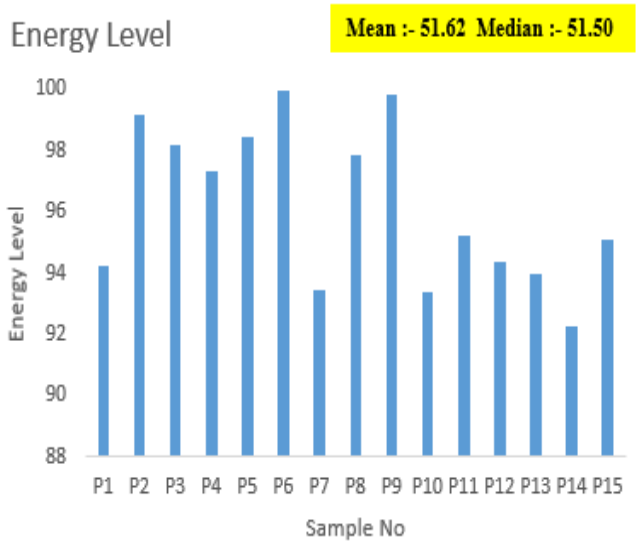

Fig. 6 Energy levels of all participants with mean and median

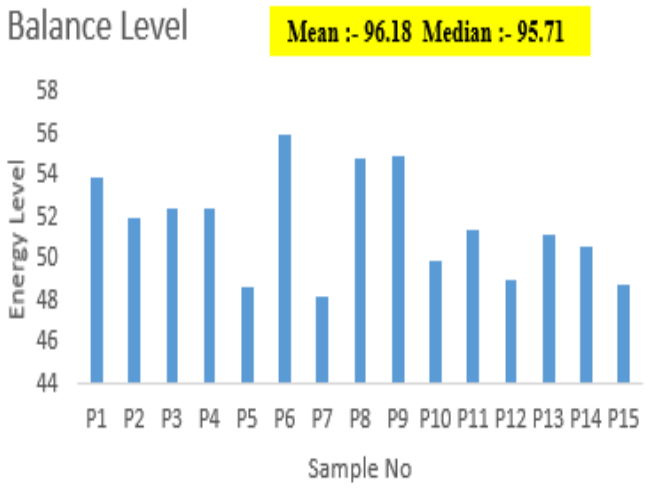

Fig. 7 Balance level of all participants with mean and median

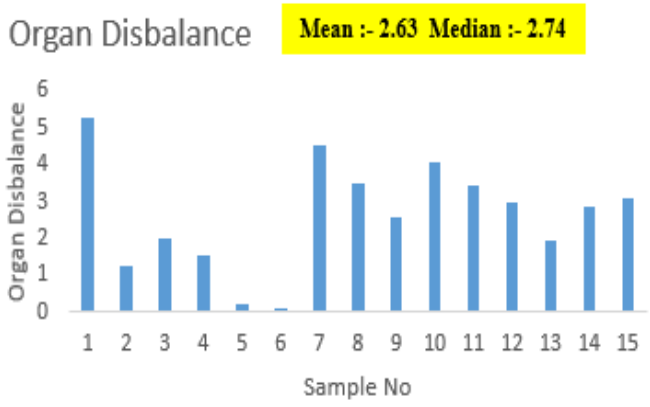

Fig. 8 Organ Disbalance of all participants with mean and median

The Biowell device also gives 7 body chakras analysis also. According to Eastern philosophical concepts and ideologies of Ayurvedic Indian medicine, there are 7 "Chakras" or united energy midpoints which are considered to affect emotional, mental, spiritual and physical well-being. In the Bio-Well lineups Chakras replicate emotional state of a human. Chakras are connected to energy movement internal and external. They are not steady and may alter every other minute. Stability of Chakras is sign of emotional stability of a human. Ideal equilibrium of Chakras may be seen for persons tangled in daily meditation and psychological training. Swing of Chakras to the left or right can be correlated to the internal expressive responses of a human or to the response to ecological condition (other human, electromagnetic fields, weather, etc.).

The following figure shows sample human body chakras for participant number 8.

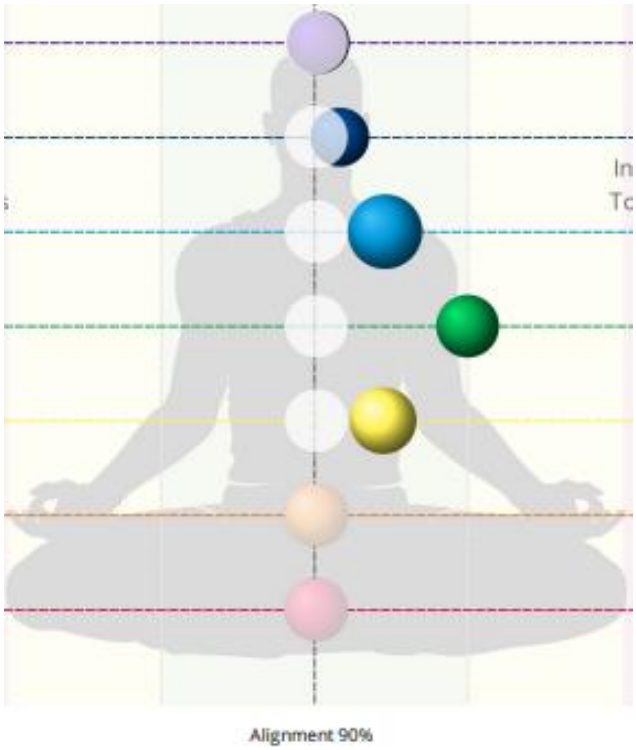

Fig. 9 Chakra of a participant 8

The overall alignment of chakras is 90%. Different chakras correspond to different meaning about the well-being of the individual. Here Chakras 1, 6 and 7 are exactly on the center revealing his perfectness toward this. From chakra 1 we can conclude that person is self-confident. Chakra 6 is related to approach to solving tasks and search of information telling us he works very calmly to find out solution to the problems. Chakra 7 is related to relationships with God, atheist or fanatic. So, he is god centric person. All other chakras are moved towards right side which depicts that participant number 8 is introvert person.

The figure 10 shows chakra of participant number 3. The chakras are not at their center but are distributed on right and left side of the middle line. Chakra 1, 2 4 and 6 are aligned towards left side and chakra 3, 5 and 7 aligned towards right side. Overall, the participant is extravert. As the chakras are less balanced the alignment is also less i.e. 87%.

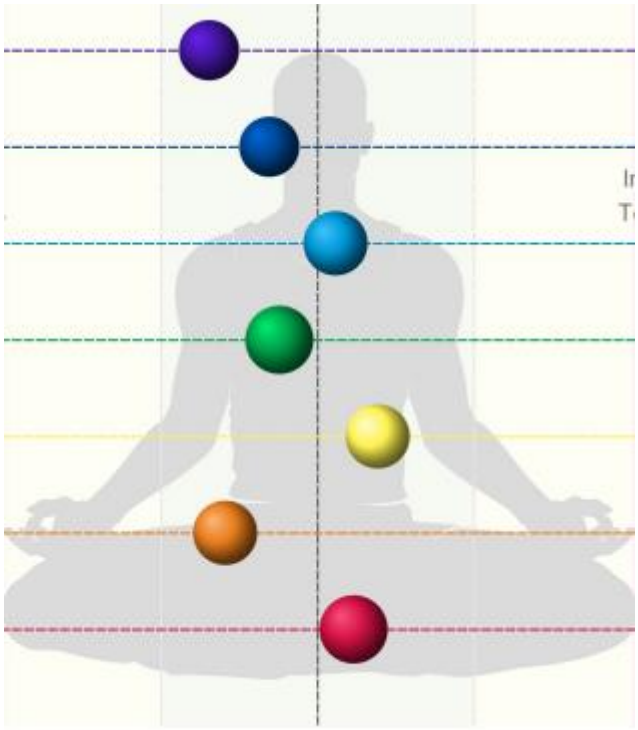

Fig. 10 Chakra of participant 3

CONCLUSION

In this paper we monitored and detected the stress using Human Aura, In the first stage we measured the parameters Anxiety, Energy level, Balance and organ Disbalance. These parameters are directly related to human stress. In the second stage Chakra alignment with the central vertical axis was measured. It is observed that Stress and Chakra alignment are strongly related to each other. More the stress higher the misalignment. More the stress higher the misalignment. Secondly more the stress higher the anxiety level, lower energy level, lower balance and higher the organ disbalance.

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