A Study of Automation in Palmistry

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Abstract—Palmistry is the art of characterization and foretelling the future through the study of the palm, also known as palm reading, or chorology. Palm lines and fingers square measure helpful for recognizing the characteristics of a person and to foretell his future. This paper reviews about automatic Medical divination System (AMPS) as AN application of digital image process and analysis technique. This will be helpful in tending domain to predict diseases for individual. the photographs of human palm kind input to the system. Then, system applies digital image processing techniques on input pictures to identify sure options within the image and by victimisation content of medical divination it analyzes sure options in image and predicts probable sickness.

Keywords— Palmistry, binary, edge detection

I. INTRODUCTION

Palmistry is in itself an entire science which might forecast the longer term of a private genuinely. Medical palm reading is one branch of palm reading, which works on identification of probable diseases by observant nails and palm to point specific diseases, primarily based on their position on lines, mounts and fingers. According to principles of medical palm reading, there are some symbols like Iceland, cross, star, square, grill, spot, and circle. If one or a lot of of them is/are found on specific region of palm, or on specific line of palm, it indicates chance of unwellness of various organ of body1,2.

Apart from symbols, color and surface of palm and nails, shape of palm and fingers conjointly plays vital role in decision creating. The color of palm and nail is ascertained rigorously by several doctors to get help in unwellness identification. It is doable to observe color of palm and nail by naked eyes, however it could become subjective. Computer vision helps United States to work out this color with none judgement. Palmistry is a science that observes human palm by different aspects and derives conclusions regarding nature of the person. Since ancient time, in several civilizations like Indian, Chinese, Persian, Egyptian, Roman and Greek, folks were used to get steerage regarding their gift and future by suggests that of palm reading. It describes attributes of human, like, health, psychology, intelligence, and style and different related entities. Medical palm reading is one branch of palm reading, which works on identification of probable diseases by observing some symbols in human palms. According to principles of medical palm reading, there area unit some symbols like Iceland, cross, star, square, grill, spot, and circle. If one or more of them is/are found on specific region of palm, or on specific line of palm, it indicates chance of malady of respective organ of body.
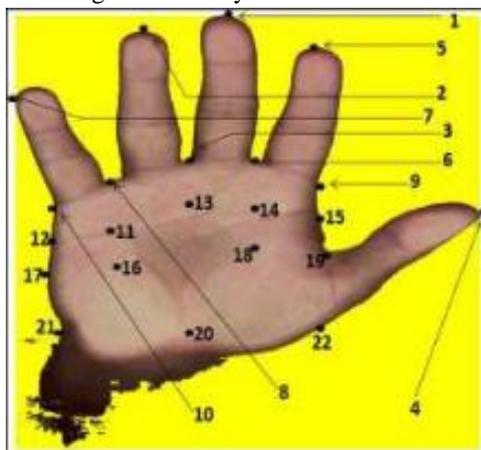

Figure 1: Points of Interest in palm

Number of Point in figure 3	Interpretation in algorithm
1	Top of the tallest finger
2	Top of the ring finger
3	Left base of the tallest finger (Right base of the ring finger)
4	Top of the Thumb (Rightmost point in the image)
5	Top of the index finger
6	Left base of the index finger (Right base of the tallest finger)
7	Top of the smallest finger
8	Left base of the ring finger (Right base of the smallest finger)
9	Right base of the index finger
10	Left base of the smallest finger

Table 1: Interpretation of the numbers in figure 1 by the algorithm

II. RELATED STUDY

Traditional Approach

Since ancient time, in several civilizations like Indian, Chinese, Persian, Egyptian, Roman and Greek, folks wont to get guidance concerning their gift and future by means that of foretelling. "Palm Reader", WHO could be a individual wont to predict attributes of human, like: health, psychology, intelligence, and modus vivendi and different relate d entities based mostly on his/her knowledge.

B.Web based mostly Approach: Various net applications area unit being developed for foretelling. In some net applications, "Palm Reader" is needed. Here it is attainable that image might be degraded throughout file transfer. additionally human per ception has limitation in image resolution, object identification and color perception.

C.Mobile Application based mostly Approach In case of Mobile Application based mostly applications, sample pictures of palm area unit shown and users ought to compare their own palm with the most suitable sample image. Predictions area unit displayed supported the choice of image by user. It is user's responsibility to identify the nearest matching image. It is difficult for user to compare the given image with his/her own palm, because every person has different set of symbols and lines on palm. If user selects wrong image, then he/she may get wrong prediction, which may be not suitable to him/her Using Image Processing and Analysis (IPAA) techniques, a system can be developed to overcome these limitation, and predict the disease/s based on medical palmistry automatically.

III. AUTOMATED MEDICAL PALM SYSTEM

Based on the limitations mentioned in the review of existing system. AMPS proposes a new system with following improvements:

1. No palm-reader required: All the predictions based on palm image are done by the system only, so there is no need of sending image to a palm reader and hence the probability of image distortion is reduced.

2. Comparison of palm with sample image is eliminated: The proposed system takes image of a palm as input and gives prediction as output. Since the system processes the image and extracts features accurately, it reduces the probability of wrong prediction and provides optimal solution. Automated Medical Palmistry System allows users to diagnose the diseases in human body by taking image of users palm as input. Then, system applies digital image processing and analysis techniques on input images to identify certain features in the image. By using knowledge base of medical palmistry it analyzes certain features in image and predicts probable disease. Thus, user can rely on predictions done by the system.

IV. EXISTING TECHNIQUES

The existing systems are trying to integrate palmistry knowledge with Image processing. So, we have used image processing knowledge to extract lines, thenpalmistry knowledge to get results. For image processing we are trying mainly line detection and curve detection. We found that for line and curve detection Hough Transform is most efficient algorithm. Hough transform makes an array and works as a matrix, so its functioning is easy. With the help of Hough transform we extract outlines of hand and lines on palm from the given hand print and then system will analyze those lines with the lines in our database [1], [2]. In order to help Hough-Algorithm to work better, we first apply Canny-Algorithm.It detects edges accurately so, it makes things easier for Hough-algorithm [3], [4].Then next step followed is pattern matching for getting boundaries of palm [5]. Pattern of input palm image is matched with the palm image templates maintained in the database pixel by pixel and by taking difference between both images (pixel by pixel) we get one out of three possible results: less match, more match and exact match. The third possible result i.e. exact match is practically impossible and the first possible result i.e. less match is not suitable for our method, so we consider the

second possible result i.e. more match. The second possible result is suitable for our system as we are only concerned for pattern of palm that gives the idea of boundaries of palm. Once we get boundaries of palm we apply pixel addition and difference methods to compute pixel distances [11] and thereof palm width (Pw), palm length (Pl), and finger length (Fl). In palmistry field some palmists have given their logics about

fingers' length, palm length-width and its effect on person's personality, as every person has some unique characteristics and different nature and that is ruled by his hand, his hand-type, finger length and ruling planet [6], [10]. So, by integrating that existing knowledge we are proposing our ratio-system, which will perform a ratio-based analysis on palm and fingers and generate a result based on palmistry[7], [8].

V.   CONCLUSION

Palm length-width and finger length are very important characteristics of a palm and in this paper we have proposed a novel approach for getting palmistry results based on these characteristics with the help of image processing. In this paper we have reviewed various approaches, eg ratio based system approach and finger length comparison based approach. The ratio base approach helps to identify the basic characteristics of a person in the form of positive and negative characteristics whereas the finger length base approach help to identify different personality types ruled by different planets. With this approach one can make computer intelligent enough to read and analyze hands and generate results.

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