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Chiromancy in the field of Medicinal science based Human health care using Digital Image Processing

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Abstract*—In this paper the diseases in human is analyzed with their palm through the application of digital image processing and their indications has been discussed. The palm traces shows the gesture of disease which is very useful in the domain of health care. Here we are processing a palm image under the basis of medical palmistry. Since an image is processed digitally, so called the application as digital image processing. The input to the system is a human palm .These images identify certain pictures on the image of palm. With the help of medical palmistry knowledge, certain features in image are analyzed and predict probable disease. The resulted proof forewarns the human to be aware of the disease and advices some cautionary steps.
***Keywords*— Digital image, Medical Palmistry,IPAA, MPHH, Decision Support system.**

I. INTRODUCTION

Medical palmistry is one branch of Palmistry in the field of advanced science and technology. It observes the nails and palms that has lines and mounts .According to the medical palmistry principles there are some symbols like Iceland, cross, star, square, grill, spot and circle. Every specific region in the hand explicitly defines the organ of our body. Palm characteristics indulge in color, fingers, nail, and surface of palm. Many doctors carefully observe the palm and nail color with naked eyes and judge his disease as assistance. A computer vision determines the color without any subjectivity. Medical Palmistry in Human Health MPHH diagnose the disease in accurate way. Certain features of the image are identified by MATLAB.The image features are analyzed using palmistry knowledge and probable diseases is predicted and provides remedy.

II. EXISTING SYSTEM

There are three approaches based on the palmistry. They are, Historic approach, Webbing approach, Nomadic based approach.

A. Approaches

1) Historic Approach: Ancient Civilizations like Chinese, Indian, Egyptian, Persian, Roman and Greek used Palmistry techniques to predict their future**.** These palmistry techniques are dealt by the "Palm reader". A person goes to the palm reader to predict their future. The palm reader is a human being who reads the palm and says about the individuals health, psychology, intelligence and lifestyle**.**

2) Webbing Approach: There are various applications being developed for palmistry. Here the image is degraded and processed. Also human Perception has limitations in image resolution, object identification and and color perception.

3) Nomadic based Approach: Nomadic based approach is mobile applications from play store which compares their own palm image with some sample images.

Using Medical Palmistry in Human health care technique (MPHH) a system can be developed to overcome these limitations and predicts the disease based on medical palmistry automatically.

III.PROPOSED SYSTEM

In Ancient/ Traditional approach Doctors predict the diseases by analyzing the human palm because palm can vary due to ageing and if disease caused too. Typically human palm consists of fingers, mounts, lines. Some symbols such as island, spot, square, grill ,circle indicate disease. In addition to these there are some marks like triangle, cross and circle. These symbols and patterns are more related to the psychology compared to their physical characteristics. In the proposed system the input image is given the palm image , Medical Palmistry based Human Health care (MPHH) technique is induced , and the knowledge of medical palmistry which is the basic database is given to the system and finally the probable disease is predicted.

A. Human palm and its Forewarning

In our proposed system we implement the high resolution palm images as a supporting system that replaces doctors.

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1) *ISLAND:* Present in the heart line indicates that heart disease is inherited.
2) *SPOT (Bright or Light):* Bright spot in the head line indicates shock or injury due to fall
3) *SQUARE:* Square is called mark of preservation because it shows that the subject is protected at that particular point from whatever danger has menaced.
4) *STAR:* star on the moon of mount indicates probability of urinal diseases.
5) *GRILLE:* Grille on the mount of Venus indicates probability of problems with reproductive problems.

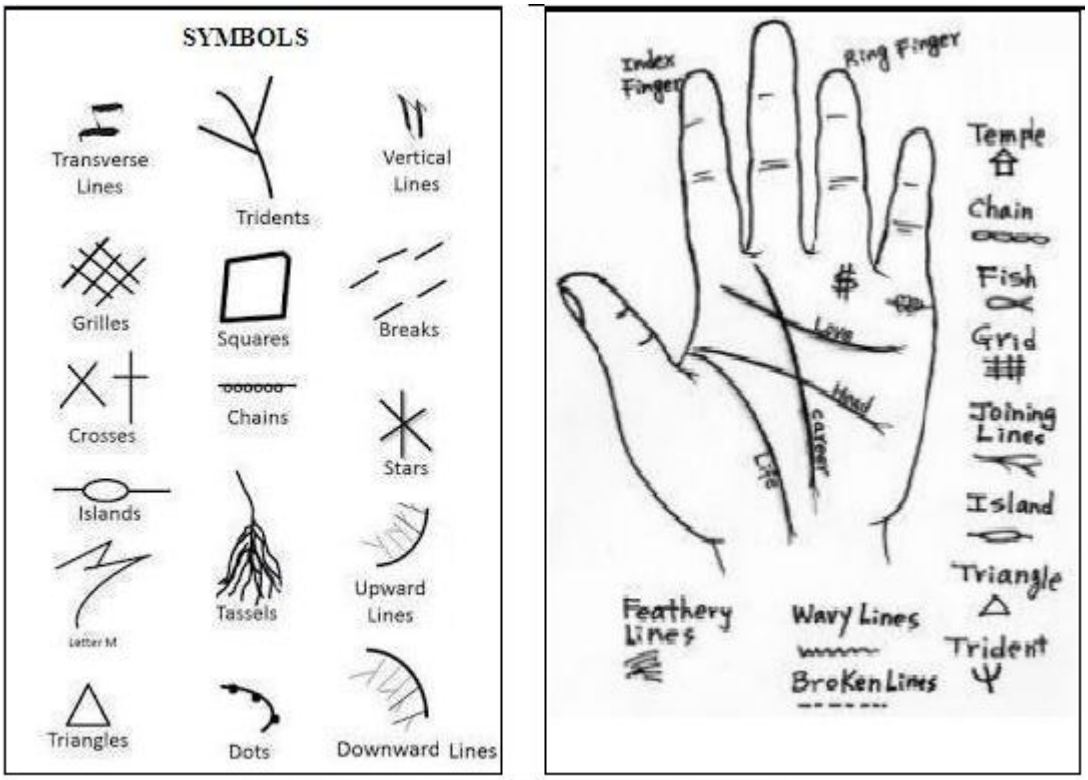

Fig. 1 List of symbols on Human Palm

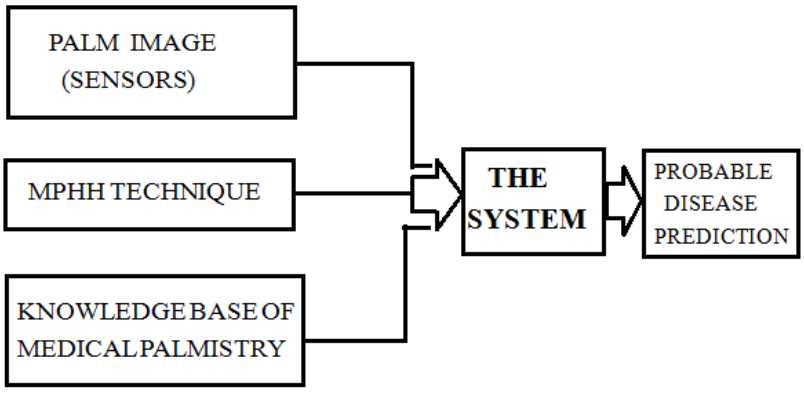

Fig.2 The Architecture of the system

Basically to predict the disease there are two modules they are, Image processing module and knowledge management and prediction module. In the first case of Image processing module the image is formed then it is sampled and digitized after that enhancement of an image is done where smoothening sharpening is done in the image. Then the image is segmented, edge and line detection is done after that description of such images is mentioned. Those features are commonly extracted in the feature extraction

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unit and given to the final stage where the disease is predicted and results are produced with proper cautionary steps. The knowledge management and prediction module consists of Engineers knowledge and the base of medical palmistry based knowledge. The technique we use here is the Medical based palmistry Human health care (MPHH) which is fed after the input image. The image formation, Digitization, Image Enhancement, segmentation, edge line detection, color processing, feature extraction, image description are the image processing and analysis module .Thus the processing and analysis step of the system pay an way for the system in an well defined manner in digital image processing domain of medical palmistry.

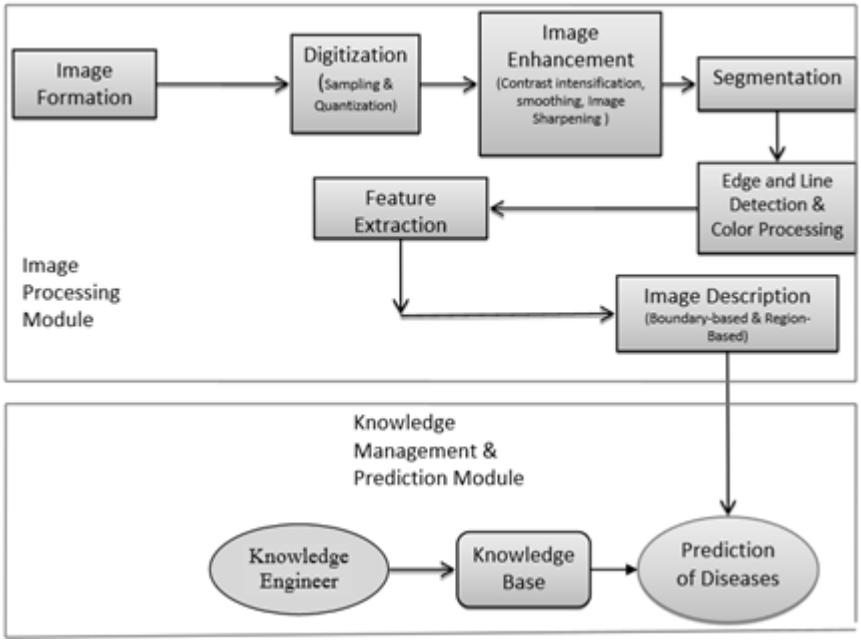

Fig.3 The steps of processing and analysis by system

IV. SYMBOLS AND PREDICTED DISEASE

The Symbols in human palm and color of human nail predicts the disease in human being as a form of assistance.

Symbols	Prediction
Chain	Lack of concentration, fluctuating alternation
Spot	Bright red spot on the line of head indicates a shock or injury from some blow or fall
Triangle	Creative, success in scientific research
Feathery line	Anxiety and worry
Square	Detention or incarceration
Island	Inherited heart disease, headache, dissipation of energy
Fish	Sinusitis type of problem, incident of drowning
Star	Injury on head, sudden death, poisoning at age specified
Grid	Being stuck or stifled
Broken lines	Disappointment and rejection, injury to head
Dot	Acute illness or accident
Tassel	Weakening of mental clarity, deteriorating heart condition
Traverse line	Obstacles and failures in one's career
Grille	On the mount of venues indicates probability of problems with reproductive system
Star	Star on the mount of moon indicates probability of ascites, or urinal diseases.

Table.1 Symbols in human palm and prediction

In addition to these symbols/ marks there are some other patterns like cross, circle etc., They are more related to psychology of a person rather than physical characteristics[10].Above these method there are some neural networks back propagation algorithm used to bring out the efficiency to 90-95 of the whole disease prediction system[11].

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Nail Color	Prediction
Blue nails	Represent a high level of an abnormal form of hemoglobin in the circulation.
Black nails	Signs of Anemia,bacterial infection,liver disease.
White fingernails	Signal a protein deficiency.
Grey nails	Arthritis problems,malnutrition,lung problems
Green nails	Bacterial infection such as Bacillus infection.
Yellow nails	Problems with the lymphatic system,respiratory disorders, diabetes or liver.
Purple nails	Oxygen deprivation,circulatory problems,congenital problems.
Red fingernails	Possible Brain haemorrhage,heart disease,high blood pressure
Darkening of nails	Kidney disease
Dull nails	Deficiency of vitamins

Table.2 Color of human nails and prediction

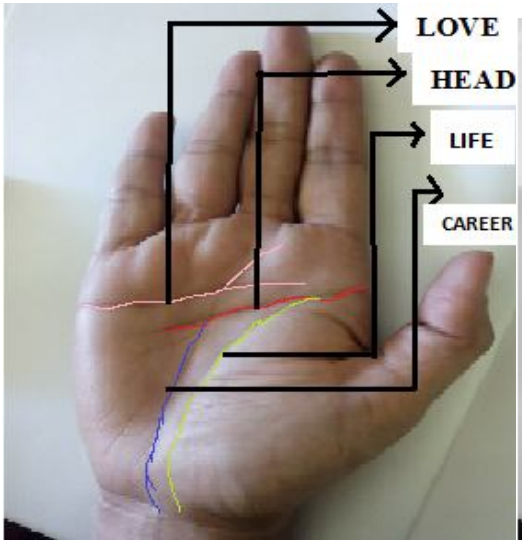

Fig.4 RGB of input palm image

Fig.5 Grayscale image of RGB

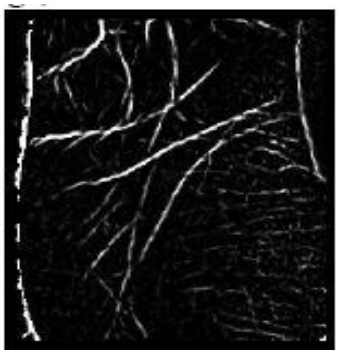

Fig.6 Edge and Line Detection

V. ALGORITHM TO DEFINE SPECIAL SYMBOLS FROM REST OF THE PALM

First of all the hand palm images should be taken only with white background [RGB value (255,255,255)].
Algorithm steps to follow, they are as follows

A. Segment the image

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B. Remove the portions of finger and thumb,by changing pixel color value to (255,255,255).
C. Repeat the following steps until RGB value of pixel (255,255,255)
D. Start getting pixel color values from any side. If Left to Right or Right to Left
E. If scan starts vertically then from top to bottom scanning process occurs
F. If scan starts horizontally then from left to right or right to left scanning process occurs.
G. Get pixel color value for every individual pixel.
H. Count number of pixel for each and every pixel
I. The color of the palm is equal to the highest number of pixel in the palm.
J. Line or special symbols is equal to the pixel whose color value is less than the pixel with the palm color which is according to the color palm model.

VI. DESIGN AND IMPLEMENTATION

Fig.7 Input image

Fig.8 Edge and Line Detection

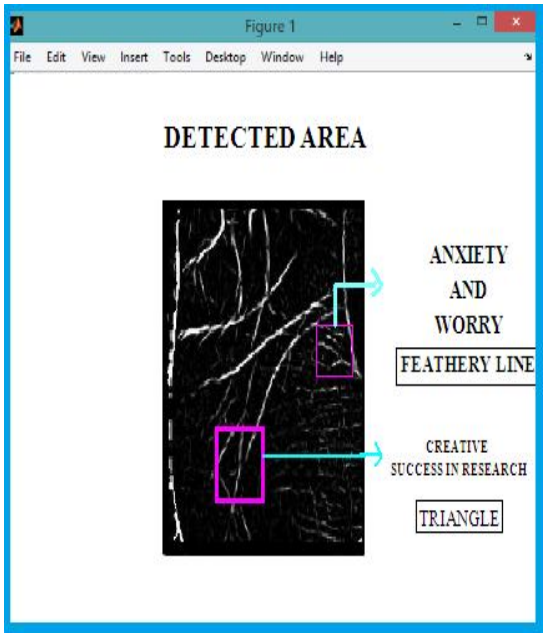

Fig.9 Detected Area

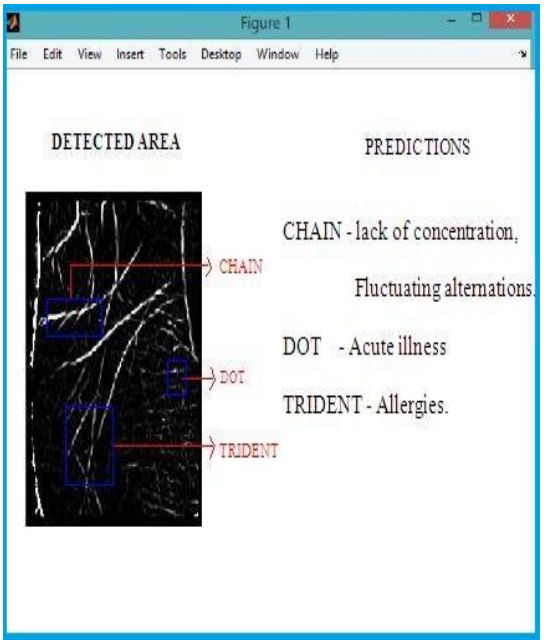

Fig.10 Detected Area with predictions

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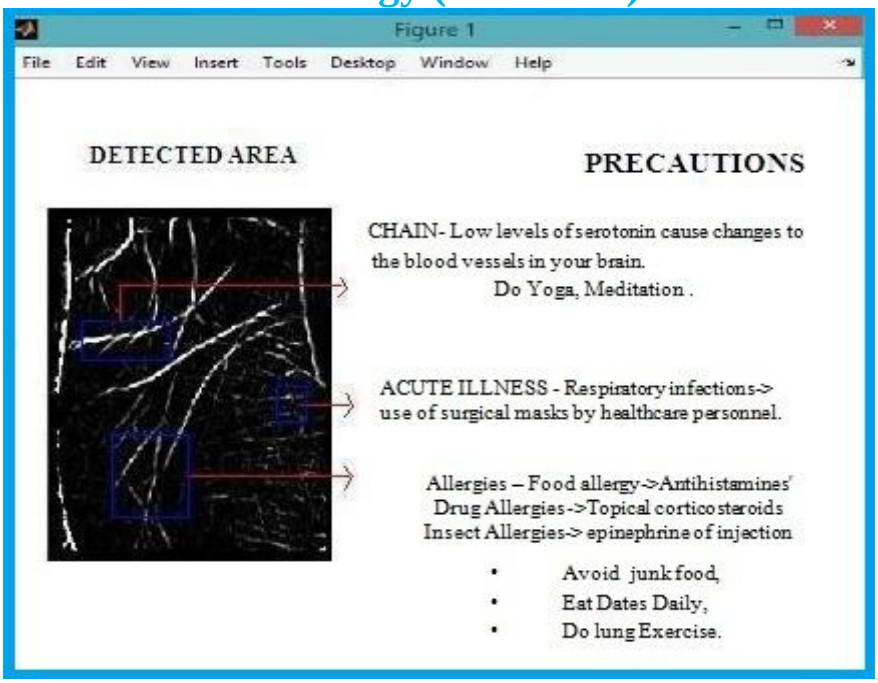

Fig.11 Precautions related to Disorders

VII. ANALYSIS AND RESULTS

A. Advantages

1) Easily indicates the disease in humans.
2) Compared to Treatment Cost it is very Cheap.
3) Takes less time.
4) 75% - 80% determine the disease accurately.
5) Doctors can also use this model as an assistance.
6) High speed.

B. Results

In a test bed of 100 images nearly 84 images out of 100 images predicted the disease successfully.It produces the result in high speed of 10 seconds per image. The prediction is made on several symbols.The experimental result demonstrate that nearly 325dpi per image.It also embraces Numerology and Embrology predictions.

VIII. CONCLUSION

This paper proposes a new scheme in the chirology scheme of digital image processing and analysis technique of the human palm. With the help of MPHH technique nearly 100 images with several symbols has been analysed and diagonosed their disease successfully. In future this paper plays an evidence and be an vital part in analysing the disease as soon as possible without the appointment of on order for diagnosis of the disease.The main advantage of this type is Routine check up of our health. It indicates the disease in advance. Doctors can model this as an assistance in identification of disease.

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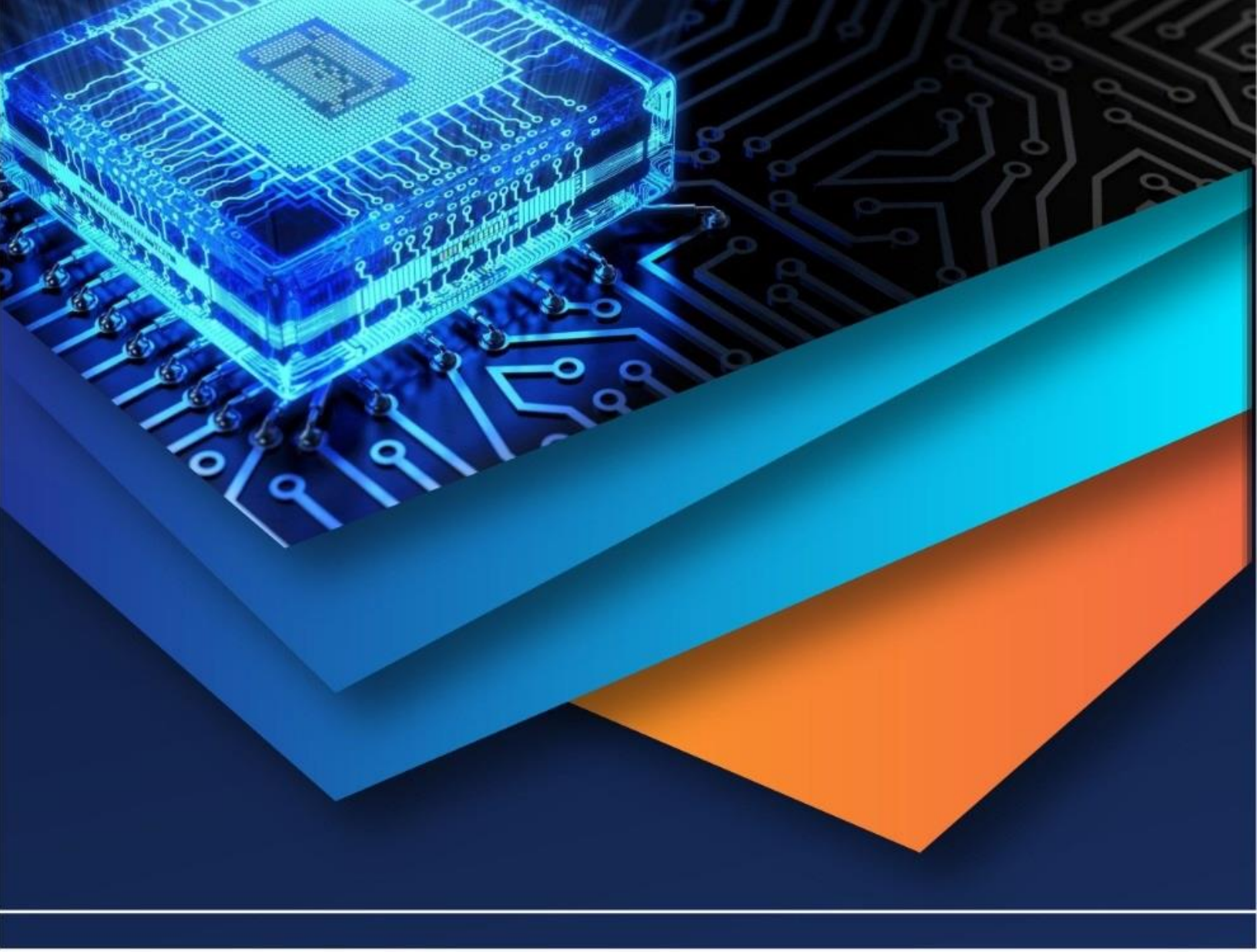

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