COMPARATIVE STUDY OF CLUSTERING ALGORITHM BY CONDUCTING DISTRICT LEVEL ANALYSIS OF MALNUTRITION

ANAND R MANWANI, VASANTI P PATIL, RITHIK TICKOO, RISHABH SONI,
PROF. GANESH KADAM
Department of Computer Engineering

G.H RAISONI INSTITUTE OF ENGINEERING AND TECHNOLOGY,
WAGHOLI, PUNE.

Abstract: In this project we have a tendency to area unit elaborating idea of unwellness detection of physical body exploitation nail image of human fingers and analyzing information from the image of basic of nail color. During this project the procedure of unwellness detection could be as follows: The input to the system is a person nail image. The system can method a picture of nail and extract feature of nail that is employed for unwellness diagnosing. Here, initial coaching information is ready exploitation Machine Learning from nail image of patient specific unwellness. A feature extracted from input nail image is compared with coaching information set. During this project we have a tendency to find that color feature of nail image area unit properly matched with training information set.

Keywords: Machine Learning, Malnutrition, Disease Detection.

I.   INTRODUCTION

Malnutrition could be an advanced topic that pulls the eye of the planet and lots of researchers. Nutrition is important for the health in the slightest degree ages. The Health and Nutritional standing of youngsters is one amongst the benchmarks that may indicates the Nutritional condition of the broader community, as a result of the pattern of parenting in several communities additional priority to Toddlers. deficiency disease doesn't occur suddenly, however begins with meagerly weight gain. Changes in toddler's weight at intervals a particular time area unit an early indication of kid's nutritional circumstances. Within the six-month amount, infants World Health Organization didn't gain weight two times, were in danger of deficiency disease 12.6 times than those with regular weight gain. supported this, the burden modification info is often the parameter to mapping the potential deficiency disease issues. Thus, info of space with potential deficiency disease is required as input for presidency and public policy manufacturers to stop deficiency disease and create a nutritionary intervention. Image process could be a methodology to convert a picture into digital kind and perform some operation thereon, so as to induce an increased image or to extract some helpful info from it.

Therefore, playing nail color analysis through PC could be a superior technique as compared with human eyes. Human eyes have restricted resolution, finding deviation in close to by element intensity don't seem to be potential for human eyes, however PC vision will observe each element fitly. Pathological take a look at area unit advanced and painful, patient should be on the market for pathological take a look at, whereas analysis performed by the system is calm. this technique would be useful for the patient, as patient needn't to be gift in the flesh or if the doctor isn't on the market for consultation purpose thus simply by receiving patient's nail image the doctor will diagnose the symptoms and write applicable prescription for the malady that's being diagnosed. The planned system can extract color feature of human nail image for illness prediction. The system is that specialize in image recognition on the idea of human nail color analysis. several illnesses may be known by analyzing nails of human hand.

During this system human nail image is captured victimization camera. Captured image is uploaded to our system and region of interest from nail space is chosen from uploaded image manually. the chosen space is then processed more for 9 extracting options of nail like color of nail. This color feature of nail is matched victimization easy coaching information set for illness prediction. In this means the system is helpful in prediction in their initial stages.

II.   LITERATURE SURVEY

[1] Cynthia Hayat,Barens Abian, "The Modeling of Artificial Neural Network of Early Diagnosis for Malnutrition with Backpropagation Method", 2018, this research consisted of 2 phases, which were training phase in which it generated ANN weight by using feed-forward of activation function, and testing phase in which the result of the previous stage was tested to obtain output.

[2] Bambang Lareno, Liliana Swastina, Husnul Maad Junaidi, "IT Application to Mapping The Potential of Malnutrition Problems", 2018, this paper focus to find a model of IT application that can be used for mapping the potential of malnutrition problems and the rate of utilization of posyandu. The result, the cross-platform information model developed is a web-based core system, with a mobile application-based support system.

[3] Anutosh Maitra, Rambhau Eknath Rote, Nataraj Kuntagod, "Managing Child Malnutrition via Digital Enablement: Insights from a Field Trial", 2017, in this paper that malnutrition management requires an integrated digital approach – that not only looks at making data available, but also establishing relationships between various program indicators, overlaying that with socio-economic conditions of the region and family demographics.

[4] Sri Winiarti, Sri Kusumadewi, Izzati Muhimmah, Herman Yuliansyah, "Determining The Nutrition of Patient Based on Food Packaging Product Using Fuzzy C Means Algorithm", 2017, the result of the decision will give 3 clusters on nutritional status is good nutrition, malnutrition and better nutrition. Mobile apps are used as a reminder of the nutritional value or ingredients contained in the packaging of food products while consuming food. The result of system testing for application of FCM algorithm in this mobile application obtained validation of 80%. Problem statements : Malnutrition is one amongst the most important public health issues in developing countries. Asian nation contributes 1/3rd of total starving kids within the world, with prevalence as high as 29.4%. Chronic deficiency disease fully fledged throughout youth inhibits growth, retards mental development; cut back motivation and energy state, inflicting reduction in academic attainments. The aim of this study was to assess the association of deficiency disease with scholastic performance among 8–12-year kids' knowledge to analysis the health records. This cross-sectional study was done among 8–12-year kids, with sample kid's photos with text input file, taking the prevalence as five hundredth, exactness as 100 percent.

III. METHODOLOGY

In this project we are elaborating concept of disease detection of human body using nail image of human fingers and analyzing data from the image of basic of nail color. In this project the procedure of disease detection is as follows: The input to the system is a person nail image. The system will process an image of nail and extract feature of nail which is used for disease diagnosis. Here, first training data is prepared using Machine Learning from nail image of patient of specific disease. A feature extracted from input nail image is compared with training data set. In this project we found that color feature of nail image are correctly matched with training set data.
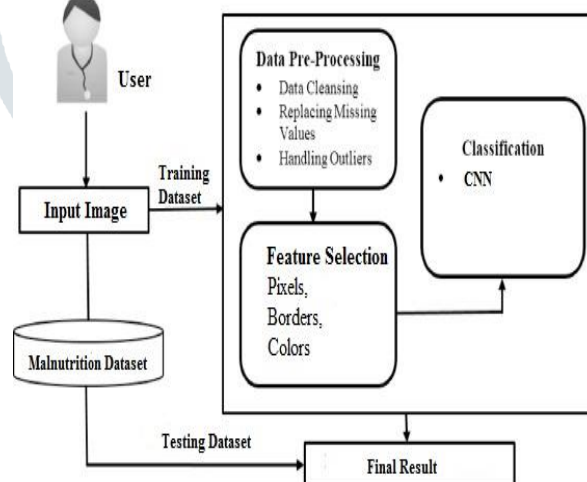
    a. Block diagram :

Fig 1. System block diagram
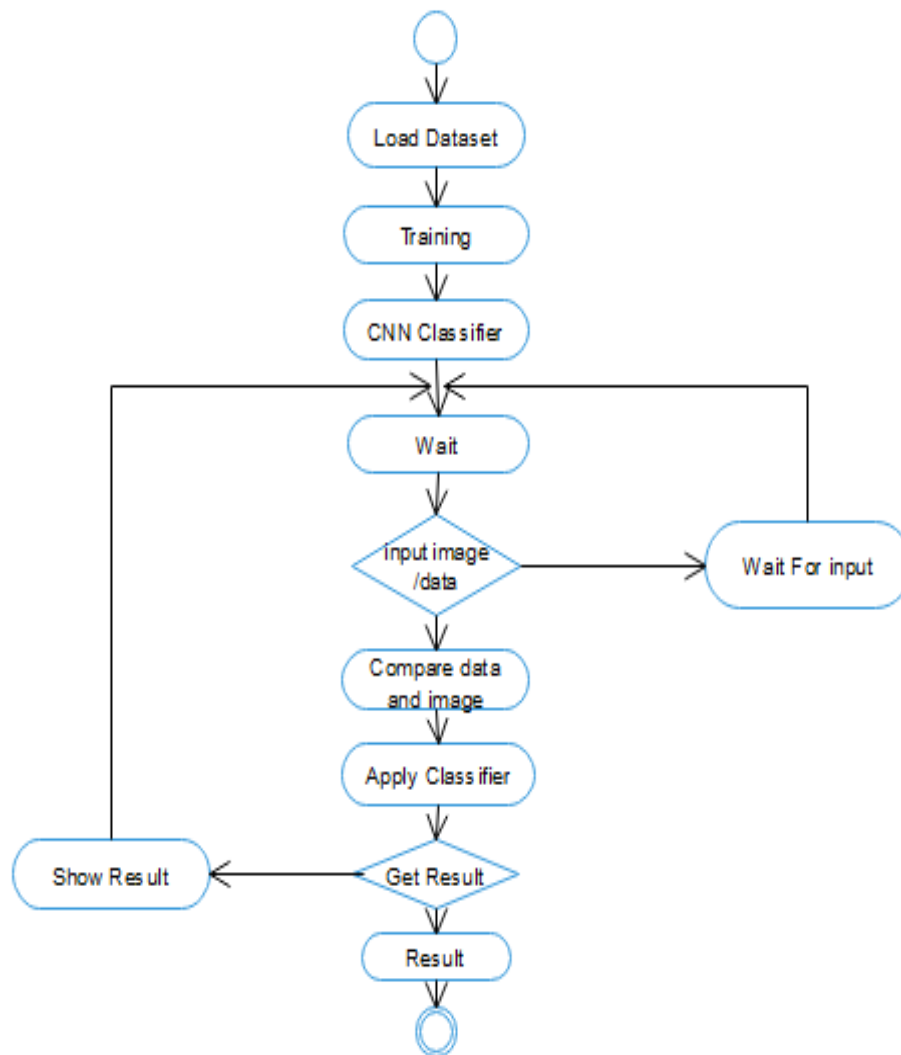
b.   *Flow diagram*

Fig 2. Flow diagram

IV.   CONCLUSION

In presented system, system analyzes the human nail and gives probable disease for person including healthy case. Here, for disease prediction nail color (average RGB) value used as a nail feature. This model gives more accurate results than human eye like subjectivity and resolution power. This may give more accurate result for identifying human health condition using machine learning algorithm.

V.   REFERENCE

[1] Cynthia Hayat, Barens Abian, "The Modeling of Artificial Neural Network of Early Diagnosis for Malnutrition with Backpropagation Method", 2018.

[2] Bambang Lareno, Liliana Swastina, Husnul Maad Junaidi, "IT Application to Mapping the Potential of Malnutrition Problems, 2018.

[3] Anutosh Maitra, Rambhau Eknath Rote, Nataraj Kuntagod, "Managing Child Malnutrition via Digital Enablement: Insights from a Field Trial", 2017

[4] Sri Winiarti, Sri Kusumadewi, Izzati Muhimmah, Herman Yuliansyah, "Determining the Nutrition of Patient Based on Food Packaging Product Using Fuzzy C Means Algorithm", 2017.