V.S.B ENGINEERING COLLEGE,KARUR

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LITERATURE SURVEY

TITLE : Personal Expense Tracker Application

DOMAIN NAME : Cloud Application development

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ABSTRACT:

Expense tracker is an android based application. This application allows the user to maintain a computerized diary. Expense tracker application which will keep a track of Expenses of a user on a dayto-day basis. This application keeps a record of your expenses and also will give you a category wise distribution of your expenses. With the help of this application user can track their daily/weekly/monthly expenses. This application will also have a feature which will help you stay on budget because you know your expenses. Expense tracker application will generate report at the end of month to show Expense via a graphical representation. We also have added a special feature which will distributes your expenses in different categories suitable for the user. An expense history will also be provided in application.

INTRODUCTION:

Now a day's people are concerned about regularity of their daily expenses. This is done mainly for keep a track of the users' daily expenses to have a control of users' monthly expenses. We have developed an android application named as "Expense Tracker Application" and this application is used to manage the user's daily expenses in a more coherent and manageable way [10]. This application will help us to reduces the manual calculations for their daily expenses and also keep the track of the expenses. With the help of this application, user can calculate his total expenses per day and these results will stored for unique user. As the traditional methods of budgeting, we need to maintain the Excel sheets, Word Documents, notes, and files for the user daily and monthly expenses. There is no as such full-fledged solution to keep a track of our daily

expenses easily. Keeping a log in diary is a very monotonous process. The mobile applications that are available in the market are very helpful to the smartphone users and make their life accessible. The expense tracker is also one of those applications, which much extent in daily life. As there are many similar apps available today, we added some innovative components to make our application unique, easy to use and coherent. Apart from adding unique features like view analytics and expense history in the application, we also added features like multiple user accounts. We have an idea of making use of application for the purpose of survey in the field of expenses of user. This idea serves as a main objective of research project . The research also includes view the reports at the form of charts.

LITERATURE SURVEY:

Sachin D. Khirade & et al… [1] Identification of the plant diseases is the key to preventing the losses in the yield and quantity of the agricultural product. It requires tremendous amount of work, expertize in the plant diseases, and also require the excessive processing time. Hence, image processing is used for the detection of plant diseases. Disease detection involves the steps like image acquisition, image pre-processing, image segmentation, feature extraction and classification. This paper discussed the methods used for the detection of plant diseases using their leaves images. This paper discussed various techniques to segment the disease part of the plant. This paper also discussed some Feature extraction and classification techniques to extract the features of infected leaf and the classification of plant diseases. The accurately detection and classification of the plant disease is very important for the successful cultivation of crop and this can be done using image processing. This paper discussed various techniques to segment the disease part of the plant. This paper also discussed some Feature extraction and classification techniques to extract the features of infected leaf and the classification of plant diseases. The use of ANN methods for classification of disease in plants such as self- organizing feature map, back propagation algorithm, SVMs etc. can be efficiently used. From

these methods, we can accurately identify and classify various plant diseases using image processing technique.

Prof. Sanjay, B. Dhaygude& et al… [2]The application of texture statistics for detecting the plant leaf disease has been explained Firstly by color transformation structure RGB is converted into HSV space because HSV is a good color descriptor. Masking and removing of green pixels with pre-computed threshold level. Then in thenext step segmentation is performed using 32X32 patch size and obtained useful segments. These segments are used for texture analysis by color co-occurrence matrix. Finally if texture parameters are compared to texture parameters of normal leaf. Amandeep Singh, Maninder Lal Singh& et al… [3] The most significant challenge faced during the work was capturing the quality images with maximum detail of the leaf color. It is very typical task to get the image with all the details within a procesable memory. Such images are formed a through high resolution and thus are of 6-10MB of size. This was handled by using a Nikon made D5200 camera which served the task very well. Second challenge faced was to get rid of illumination conditions as from the start to the end of paddy crop season, illumination varies a lot even when the image acquiring time is fixed. However the solution to this is variable user defined thresholding and making necessary adjustments to the shades of LCC. M.Malathi, K.Aruli & et al… [4]They provides survey on plant leaf disease detection using image processing techniques. Disease in crops causes significant reduction in quantity and quality of the agricultural product. Identification of symptoms of disease by naked eye is difficult for farmer. Crop protection especially in large farms is done by using computerized image processing technique that can detect diseased leaf using color information of leaves.Depending on the applications, many image processing technique has been introduced to solve the problems by pattern recognition and some automatic classification tools. In the next section this papers present a survey of those proposed systems in meaningful way.There are many methods in automated or computer vision for disease detection and classification but still there is lack in this research topic. All the disease cannot be identified using single method. Malvika Ranjan, Manasi Rajiv Weginwar& et al… [5] Describes a diagnosis process that is mostly visual and requires precise judgment and also scientific methods. Image of diseased leaf is captured .As the result of segmentation Color HSV features are extracted. Artificial neural network

(ANN) is then trained to distinguish the healthy and diseased samples. ANN classification performance is 80% better in accuracy. Y.Sanjana, AshwathSivasamy& et al… [6]In this it describes the uploaded pictures captured by the mobile phones are processed in the remote server and presented to an expert group for their opinion. Computer vision techniques are used for detection of affected spots from the image and their classification. A simple color difference based approach is followed for segmentation of the disease affected lesions. The system allows the expert to evaluate the analysis results and provide feedbacks to the famers through a notification to their mobile phones. The goal of this research is to develop an image recognition system that can recognize crop diseases. Image processing starts with the digitized color image of disease leaf. A method of mathematics morphology is used to segment these images. Then texture, shape and color features of color image of disease spot on leaf were extracted, and a classification method of membership function was used to discriminate between the three types of diseases. Bhumika S.Prajapati, Vipul K.Dabhi& et al… [7]In this detection and classification of cotton leaf disease using image processing and machine learning techniques was carried out. Also the survey on background removal and segmentation techniques was discussed. Through this survey, we concluded that for background removal color space conversion from RGB to HSV is useful. We also found that thresholding technique gives good result compared to other background removal techniques. We performed color segmentation by masking green pixels in the background removed image and then applying thresholding on the obtained masked image to get binary image. This is useful to extract accurate features of disease. We found that SVM gives good results, in terms of accuracy, for classification of diseases. There are five major steps in our proposed work, out of which three steps have been implemented: Image Acquisition, Image pre-processing, and Image segmentation. P.Revathi, M.Hemalatha& et al… [8]This proposed work is based on Image Edge detection Segmentation techniques in which, the captured images are processed for enrichment first. Then R, G, B color Feature image segmentation is carried out to get target regions (disease spots). Later, image features such as boundary, shape, color and texture are extracted for the disease spots to recognize diseases and control the pest recommendation. In this Research work consist three parts of the cotton leaf spot, cotton leaf color segmentation, Edge detection based Image segmentation, analysis and classification of disease. Mr. Pramod S. landge, Sushil

A. Patil& et al… [9]In this propose and experimentally evaluate a software solution for automatic detection and classification of plant diseases through Image Processing. Farmers in rural India have minimal access to agricultural experts, who can inspect crop images and render advice. Delayed expert responses to queries often reach farmers too late. This paper addresses this problem with the objective of developing image processing algorithms that can recognize problems in crops from images, based on colour, texture and shape to automatically detect diseases or other conditions that might affect crops and give the fast and accurate solutions to the farmer with the help of SMS. The design and implementation of these technologies will greatly aid in selective chemical application, reducing costs and thus leading to improved productivity, as well as improved produce. Heeb Al Bashish, Malik Braik & et al… [10]In this paper an image-processing-based approach is proposed and used for leaf and stem disease detection. We test our program on five diseases which effect on the plants; they are: Early scorch, Cottony mold, ashen mold, late scorch, tiny whiteness. The proposed approach is image processing-based. In the first step of the proposed approach, the images at hand are segmented using the KMeans technique, in the second step the segmented images are passed through a pre-trained neural network. As a testbed we use a set of leaf images taken from Al-Ghor area in Jordan. Satish Madhgoria, MarekSchikora& et al… [11]Proposed automatic pixel based classification method for detecting unhealthy regions in leaf images is presented. The algorithms have been tested extensively. Linear SVM has been used to classify each pixel. We have also shown hoe the results from SVM could be improved remarkably using the neighborhood check technique. The presented algorithm could well extended for other detection tasks which also mainly rely on color information, but extension to other features is easily possible. The task is performed in three steps. First, we perform segmentation to divide the image into foreground and background. In the second step, support vector machines are applied to predict the class of each pixel belonging to the foreground. And finally, we do further refinement by neighborhood-check to omit all falsely-classified pixels from second step. MarekSchikora, BalramNeupane & et al… [12]Thisalgorithmisdesignedtoattributeimagepixelsintooneofthetwoclasses: healthy andunhealthy. The taskissolvedinthreesteps.First,weperformsegmentationtodividetheimageintoforegroundandbackground. In thesecondstep,asupportvectormachine

(SVM)isappliedto predict theclassofeachpixelbelongingtothe foreground.Andfinally,wedorefinementbyaneighborhood-checkin ordertoomitallfalselyclassifiedpixelsfrom thesecondstep.

References:

[1] Sachin D. Khirade, A.B Patil, “Plant Disease Detection Using Image Processing”, International Conference on Computing Communication Control and Automation”, 2015.

[2] Prof. Sanjay B. Dhaygude, Mr.Nitin P.Kumbhar, “Agricultural plant Leaf Disease Detection Using Image Processing”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Vol. 2, Issue 1, January 2013.

[3] Amandeep Singh ,Maninder Lal Singh, “Automated Color Prediction of Paddy Crop Leaf using Image Processing”, International Conference on Technological Innovations in ICT for Agriculture and Rural Development (TIAR 2015), 2015.

[4] M.Malathi, K.Aruli , S.Mohamed Nizar, A.Sagaya Selvaraj, “A Survey on Plant Leaf Disease Detection Using Image Processing Techniques”,International Research Journal of Engineering and Technology (IRJET),Volume: 02 Issue: 09, Dec 2015.

[5] Malvika Ranjan, Manasi Rajiv Weginwar, NehaJoshi, Prof.A.B. Ingole, “detection and classification of leaf disease using artificial neural network”, International Journal of Technical Research and Applications, 2015.

[6] Y.Sanjana, AshwathSivasamy, SriJayanth, “Plant Disease Detection Using Image Processing Techniques”,International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Special Issue 6, May 2015.

[7] Bhumika S.Prajapati, Vipul K.Dabhi Harshadkumar, B.Prajapati, “A Survey on Detection and Classification of Cotton Leaf Diseases”, International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016.

[8] P.Revathi, M.Hemalatha, “Advance Computing Enrichment Evaluation of Cotton Leaf Spot Disease Detection U sing Image Edge detection”, ICCCNT'12.

[9] Mr. Pramod S. landge, Sushil A. Patil, Dhanashree S. Khot, “Automatic Detection and Classification of Plant Disease through Image Processing”, International Journal of Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 7, 2013.

[10] Heeb Al Bashish, Malik Braik, and Sulieman Bani-Ahmad, “A Framework for Detection and Classification of Plant Leaf and Stem Diseases”, IEEE 2010.

[11] Satish Madhgoria, MarekSchikora, and Wolfgang Koch, “Pixel-BasedClassificationMethodforDetectingUnhealthy RegionsinLeafImages”, 2009.

[12] MarekSchikora, BalramNeupane, SatishMadhogaria, Wolfgang Koch, “Animageclassificationapproachtoanalyze thesuppressionofplant immunity bythe humanpathogenSalmonellaTyphimurium”, BMCBioinformatics2012.