CLASSIFICATION OF MAMMOGRAM USING RULE BASED CLASSIFIER

(Sponsored by KSCST, Bangalore)

PROJECT REPORT

Submitted by

RAJASHEKAR K.R.

SANDEEP K.J.

SUBRAYA K.R.

VIMALESH M. RAO

In partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

(Visvesvaraya Technological University)

Under the Guidance of

Mr. ANIL B.V. B.E., M.Tech.

Asst. Professor

Department of Electronics and Communication Engineering

K.V.G. College of Engineering

SULLIA, D.K. 574327, KARNATAKA

2008-2009

ABSTRACT

Computer Aided Diagnosis (CAD) systems has revolutionized the analysis of medical images. This systems raises a number of new fascinating research in the field of medical image processing. Here an attempt is made to classify the mammograms by simple image processing software tools.

In this project statistical feature of a mammogram are extracted using simple image processing technique. The statistical feature extracted are mean, median, skewness, kurtosis, standard deviation, co-occurrence matrix parameters. Extracted features are fed to the decision trees. Based on the values of these features, decision tree classify the mammograms into 3 different classes namely normal, benign, & malignant. The accuracy of the method has been verified with the ground truth given in the database (mini-MIAS database) and has obtained accuracy of 76.667% .