STATEMENT OF PURPOSE

GROUP NO.: A25

TITLE: Implementation of Thyroid Disease Prediction System using Machine Learning Techniques.

DOMAIN: Software Development and Information Management System

TYPE OF PROJECT: In-House

LITERATURE REVIEW:

Paper 1: "Machine Learning Techniques for Thyroid Disease Diagnosis – A Review" gives an overview of how machine learning can be used to predict thyroid disease. The method used for thyroid disease diagnosis is called as ESTDD (Expert System Thyroid Disease Diagnosis). It gives an accuracy of 95.33%.

Paper 2: "Predicting Thyroid Disease using Linear Discriminant Analysis (LDA) Data Mining Technique" focuses on data mining techniques like LDA and K-Foldcross Validation to predict thyroid disease. This paper finds the LDA algorithm to be 99.62% accurate with k=6 folds cross validation.

Paper 3: "Predictive Data Mining for Diagnosis of Thyroid Disease using Neural Network" classifies the data of thyroid disease in MATLAB Neural Network Toolbox software and concludes that Levenberg Marquardt method has better performance compared to Simple Gradient Descent algorithm.

PROBLEM DEFINITION: Disease diagnosis is a very complex and tedious task; as it requires lots of experience and knowledge. The main task is to provide disease diagnosis at early stages with higher accuracy. Data mining plays a vital role in medical field for disease diagnosis. Thyroid disease is very common disease in human. Nowadays most of the women suffering from thyroid disease than male. These diseases giving many side effects such as weight gain, weight loss, stress and so on to our human body. If this disease is detected in earlier stage, then physician can give proper treatment to the patients. Collecting all the past data, analyzing it with the help of two algorithms and compare the end results.

REFERNCES:

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[2] https://www.caeaccess.org/research/volume4/number1/banu-2016-cae-651990.pdf
[3] https://pdfs.semanticscholar.org/5254/a6bc467b49f27c00f4654d03dc5d69d9d38d.pdf
[4] https://www.researchgate.net/publication/308983859

[5] http://ijesc.org/upload/ef06f1ef6b0feb76822f3b72b2515809.Applying%20Classification%20Algorithms%20to%20Predict%20Thyroid%20Disease.pdf

MEMBERS:

1. Viral Haria (30)
2. Suraksha More (57)
3. Bijal Patel (65)

PROJECT GUIDE:

Mrs. Harshali Patil

PROJECT REVIEWER:

Mrs. Rashmi Thakur