**VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE**

**COMPUTER ENGINEERING DEPARTMENT**

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**Synopsis**



**Group number: 31**

Group Members :

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**Title : Detection of Infectious Diseases**

**Objective :**  The objective of our project is to develop a system which will identify class of infectious disease from signs,symptoms and clinical attributes. Also, to identify the severity level of disease(eg:High risk,low risk,medium risk).

**Motivation:**

In rural areas where expertise is not available,this simple yet efficient software can be of great use.This system can be used by interns and assistants working under the guidance of doctors thus reducing workload of doctors.Predicting the disease accurately at initial stage will correctly direct the line of treatment thus minimizing the cost of treatment.

**Briefs about Contents:**

* **Introduction : —**

Healthcare is a sector where decisions usually have

very high-risk and high-cost associated with them. One bad choice

can cost a person’s life.The use of computer systems in decision making, prediction and recommendation has been a trending topic of research for more than a decade. The recent advances in medical science can be attributed to advances in computer technology. But, the prediction of medical behavior is still a very challenging task which is done with the help of a medical professional. The occurrence of every disease shows a pattern based on its symptoms. Thus, we propose to build a system where we will rightly detect the disease based on signs, symptoms and a few clinical parameters.

* **Technical Details :**  We aim to use Python as the programming language.

We will train our dataset by using some Machine learning algorithms like Decision tree, Random Forest Algorithm, SVMs, etc. Classification algorithms in Neural Networks too.

**References/Bibliography:**

* Harrison’s Principles of Internal Medicine

<https://drive.google.com/file/d/0B7vmUnmn4OKEVzV5ZkdpTEFwd2s/view?usp=drivesdk>

* A Novel Method for Disease Recognition and Cure Time Prediction Based On Symptoms (IEEE paper – 2015)

<https://sci-hub.tw/10.1109/ICACCE.2015.66>

* Disease Prediction by Machine Learning over Big Data from Healthcare Communities (IEEE paper – 2017)

<https://sci-hub.tw/10.1109/ACCESS.2017.2694446>