**INTRODUCTION**

The self-health diagnosis system is a diagnosis tool that would offer a list of possible causes for your illness following a quick questionnaire and symptoms one might be facing. It then offers a range of different medications that may help with any known cause. Finally it offers a range of home remedies that are often cheaper and more accessible than the prescribed medicine.

The field of healthcare is becoming increasingly industrial these days. Due to this business-oriented mindset, and increase in the cost of basic healthcare and regular check-ups, people tend to make put or ignore the symptoms that point in the direction of a disease. It is known that the difficultly faced by people living in remote areas, to get consultation by a doctor has led to many deaths that could have been avoided if the disease was diagnosed earlier and the treatment was given in proper time. A system is thus required in order to provide free diagnosis to the general public. With the research and development of AI based decision making models, we can thus create a system that helps solve these problems. Often people turn to web searches in order to get an idea about the symptoms they are developing. This is helpful however, web searches are not very accurate in this regard and many people cannot describe all their symptoms properly. A system that gives them choice and questions can therefore be more beneficial.

The chapter will majorly focus on the way:

1. To proceed in the direction of reducing the challenges faced by an individual in recognising symptoms, diseases and getting knowledge about them.
2. To provide them ease in coping up with illness and practicing possible curing methods through a web-application which would save an individual’s data in order to calculate the progress with the help of AI-based innovations.
3. To introduce a person to healthy lifestyle and motivate him/her to opt for the same.

Chapter is divided into multiple sections which include-

Use of AI in the field of disease diagnosis: Different methods and algorithms can be developed to bring AI in the field of healthcare and help assist the current healthcare system. This can help reduce unnecessary visits to hospitals and would provide the doctors more time to treat critical patients.

Decision making tools in AI: decision making models and methods (i.e., Fuzzy logic, deep learning, neural networks etc.) that can be used in order to create a healthcare system with the power of AI and Machine learning.

Design and implementation: an overview of the Neuro-fuzzy systems that would help in the prediction of diseases by taking the symptoms a person has noticed as input and predicting the possible list of diseases as the output, along with some general information and prescriptions. The advantages of the methods being discussed and the accuracy rate of the system in use would also be discussed along with the shortcomings.

Conclusion and Scope for further development: a conclusion regarding the development and use of the proposed Self-health Diagnosis System.

This self-health diagnosis model would develop as more and more doctors and medical researchers help in providing data sets to the AI based system. Better algorithms with higher accuracy rates can also be developed in future. This chapter would lay a foundation for further research in this area.