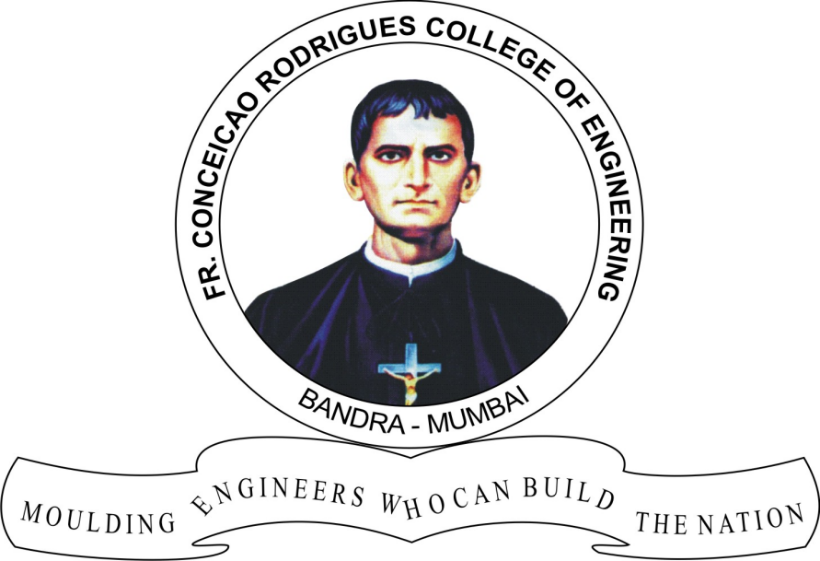
**Fr. Conceicao Rodrigues College of Engineering**

**Bandra**

**Computer Department**

**SEM-VI**



**Virtual Assistant for Healthcare Assistance**

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**ABSTRACT**

In this modern age technology is being built and adapted faster than ever before. Personal healthcare is one the domains where the assistance of an artificial intelligence system is especially beneficial to patients as well as doctors.

Often when a patient consults a doctor, the doctor has absolutely no background about the subject under consideration. An Artificial Intelligence in form of a chatbot capable of interacting with the patient can often generate precious background data about the patient thus helping in saving a lot of time in diagnosis and ensuring that faster and better treatment of the patient.

Even in this day and age there are still parts of the country which lack sophisticated healthcare technology. In such a scenario a conversational Artificial Intelligence can be a lifesaver ensuring that a patient is able to receive the best available healthcare and indeed ensure that the patient is shifted to a further treatment location better equipped to deal with the gravity of a patient’s condition.

A conversational interface can be of essential use to hospital management by featuring a prominent part in the day-to-day operational management of the institution by handling appointment bookings and scheduling sections. Thus taking the various applications and all-round use cases of the application we chose the problem as mini project for semester six.

**INTRODUCTION**

* 1. **Purpose**

The purpose of this project is leveraging Natural Language Processing techniques and Machine Learning based models to create a conversational interface capable of interacting with patients to create a better and more holistic environment for diagnosis and treatment of various maladies. Such a virtual assistant can help in bringing together doctors and patients and thus ensure that a doctor has more information about the patient under consideration and has a preliminary diagnosis using the relevant patient background and history.

* 1. **Scope**

Medical assistance is a field requiring utmost delicacy while analysis and application. The objective of Artificial Intelligence is not to replace doctors, instead it is to help doctors to better provide healthcare, understand and predict the cause patient’s dilemma. Using such an interface allows for better connectivity among patients and doctors and thus help to increase the doctor’s productivity.

Such an Artificial Intelligence can be used in various uses within the hospital and can also be used as a helpful, personal quasi-doctor by end-users looking for an opinion about a certain condition or persistent problem they have encountered in their daily life. A conversational assistant can effectively take the role of a home-nurse capable of providing cutting-edge medical technology at your fingertips.

* 1. **Abbreviations and Acronyms**
* AI – Artificial Intelligence
* NLP – Natural Language Processing
* ML – Machine Learning
  1. **References**

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   1. **Developer’s Resposibilites**

Every application is built in the following stages –

Support

ent

Deploymentent

Testing

Design

Development

Planning Planning

Feedback

**Planning And Design:**

Before building any application the developer team carefully considers all parts of the solution. The developer tries to identify the requirements of all stakeholders in the picture. He tries to identify the flow of data through the system and creates a rough sketch of how the pieces of the solution work together.

In the design step actual details of the design are worked out. Each part of the solution is divided into carefully constructed pieces and individual developers are assigned to the task at hand. The quality and efficiency of the design is calculated and further optimization techniques are tried out.