**Sylhet Engineering College, Sylhet**

Department of Computer Science & Engineering

**Project Name: MOBILE ARTIFICIAL CARDIO INTELLIGENCE**

By

Nawroz Zahan Preety – 2013331540

Yeashna Ahmed-2013331544

Submitted to

MD.Enamul Hasan

Lecturer of,

Department of Computer Science & Engineering,

ShahJalal University of Science & Technology

Table of Contents

[Summary: 2](#_Toc521251699)

[Introduction: 2](#_Toc521251700)

[Procedure: 2](#_Toc521251701)

[1. Artificial intelligence buildup: 2](#_Toc521251702)

[2. Android App building: 2](#_Toc521251703)

[3. Hardware: 2](#_Toc521251704)

[Conclusion: 2](#_Toc521251705)

Summary: Mobile Artificial Cardio Intelligence is a android application that can identify the pulse state and blood pressure via a Bluetooth sensor and can update the user about the pulse rate. It is an interactive medium through user can keep track of their pulse rate and get suggestions regarding. The app is designed in Android studio, the main Artificial intelligent system is built in python using python NLTK package, and the sensor and Bluetooth transmission is managed by ARDUINO(9999 bit) application.

Introduction: MACI or Mobile Artificial Cardio Intelligence is an AI (Artificial Intelligence) that calculates the heart beat rate and communicates with the user and feedback them with their heart state .It can also take intelligent steps like: if you have a heart attack sending a message to your relative. Basically MACI is going is an Android App coded with java and designed with xml. We have also used nlp(nlg) by java nlp libraries or if its not possible we will do it by making a local server with node.js . We have used python nltk as the backend of the app server.

## Procedure:

1. Artificial intelligence buildup: we used basic python language to build our artificial intelligence that can take decision regarding the pulse update of user. This bot has mainly four parts in generation and applying process.
   1. Affirmative negative identification: Using natural language toolkit we differentiate between the answers from user as if it is negative or affirmative. Then we process an answer, send it to the user.
   2. Mind: Mind is a part of the sentence process where we divided the sentences into their respective parts of speech using POS tagging. Before we segmented every sentences into words.
   3. Generate: - The generate part is for generating answer regarding the noun and the verb identification from the answers, then we send the answers to server and generate reply accordingly.
   4. Server:Server is our main class, where we combined all other classes, connecting the arduino code for pulse sensor Bluetooth module.
2. Android App building:We have used android studio, and created a basic app using xml and Java.
3. Hardware: We used a Bluetooth module and a sensor module that are connected to the arduino, then we connected the Bluetooth module to the pc via IP address and thus we can send the pulse rating, then the server of our application can take decision over the data it got from the module.

Conclusion:MACI has ability to be an application that would be helpful for people who needs to track their pulse rate.