FIRST PROGRESS REPORT

PROJECT NAME	REPORT DATE
SmartGuide: A smart campus guide using BLE beacon indoor localization	17 April,2020

EXECUTIVE SUMMARY

PROJECT ADVISOR	PROJECT NO.
Dr. Sheikh Faisal Rasheed	

PROJECT SUMMARY

Outdoor and indoor localization is an integral component of IoT (Internet of Things) in this era of mobile computing.
Indoor localization can open new horizons for ubiquitous applications targeting university departments, government small institutes, airports, shopping malls, museums etc. Our project will find the location of a specific person by using appropriate machine learning approach using BLE based Android application. This location will be used to provide guided tour of the indoor building (Computer Engineering Department at UET, Lahore) that we will use to validate our work.
This project will guide persons who are not much familiar with visiting place. It has an Android application that will predict the indoor location of a person at room level and also gives information of current room location and nearby rooms in the form of text, images, audio and videos.

PROJECT DOCUMENT REPOSITORY

https://github.com/rida54/SmartGuide-using-BLE-beacons

KEY PROJECT MILESTONES

MILESTONE NO.	MILESTONE	STATUS	TARGET DATE	ACTUAL DATE
1	Project Kick-Off	Completed	15 September, 2019	20 September, 2019
2	Research work and complete analysis	Completed	01 November, 2019	01 November, 2019
3	Complete planning and design	Completed	15 November, 2019	20 November, 2019
4	Complete Backend coding	In Progress	25 May, 2020	
5	Complete testing	Not Completed	03 June, 2020	
6	Complete implementation and deployment	Not Completed	20 June, 2020	

WORK ACCOMPLISHED

TASK NO.	TASK	STATUS	DESCRIPTION
1	Initial Documentation	Completed	We have completed all the documentation such as Feasibility Report, Design Document and SRS.
2	Research Work	Completed	We have also read all the research papers which are provided by our advisor and co-advisor.
3	Data Capturing Appliaction	Completed	We have also made application which helps us to collect the data of experimental area.
4	Deployment of Beacons and Data Collection	Completed	We have collected almost all the data (RSSI values of beacons) of experimental area.
5	Front-end and Back-end of Admin Application	Completed	We have also completed the Android application for admin.
6	Front-end of User Appliaction	Completed	We have also completed the front-end of user application.

7	Train Model on Dataset	Completed	We have also train the model using different algorithms such as KNN , Random Forest and ANN.

PROGRESS SINCE PREVIOUS REPORT

I already explain the entire task which we have completed but in the previous meeting our advisor said that to train the model and improve the accuracy by applying different algorithms. So we do it and improve the accuracy of the algorithms using Tensor Flow.

UPCOMING WORK

TASK NO.	TASK	STATUS
1	Train Model on Dataset	Almost Completed
2	Integrate Trained Model with User Application	In Progress
3	Back-end Coding of User Application	In Progress
4	System Testing	Not Completed
5	Thesis	In Progress

OVERALL PROJECT PROGRESS TIMELINE

MILESTONE 1

Project Initialization

MILESTONE 2

Research work and complete analysis

MILESTONE 3

Complete planning and design

MILESTONE 4

Complete Backend coding

MILESTONE 5

Complete testing

MILESTONE 6

Complete implementation and deployment

PROJECT START DATE
01/09/2019

CURRENT TIMELINE POSITION
17/04/2020

PROJECT END DATE
20/06/2020