

USER MANUAL

iTracker - Android Mobile Application



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1.0 General Information

General Information section explains in general terms the iTracker application overview and the sections of the user manual.

1.1 Application Overview

"i-Tracker" – Human Activity Recognition, an app to detect activities on real time basis and helps you to keep track of daily activities along with the calories burnt.

i-Tracker has been developed by a group of students of the University of Essex as a part of a group project.

1.2 Organization of the Manual

The user manual consists of the following four sections

- 1. General information
- 2. System Summary
- 3. How to download the application
- 4. User Interface

General Information section explains in general terms the i-Tracker application overview and the sections of the user manual.

System Summary section explains about the hardware and software requirements for accessing i-Tracker application.

How to download the application section explains the options available to download the i-Tracker Android application on your mobile.

Using the Application section provides a detailed description of the functionalities of the i-Tracker application.



2.0 System Summary

System Summary section explains about the hardware and software requirements for accessing i-Tracker application.

2.1 Hardware and Software Requirements

Requires a smart phone with Android operating system (OS)

The minimum Android version should be 4.0.3 and up to avail all the features in the application.

To download and use the functionalities of i-Tracker mobile app, you will need an APK file.

2.2 User Access Levels

At this moment we only have one type of user access which is Guest User.

1. Guest User

Guest user is one who access and uses the i-Tracker application without registering in the application.



3.0 How to download the application

i-Tracker application can be downloaded by scanning a QR Code.

3.1 i-Tracker QR Code

i-Tracker application can be downloaded from the server in two ways.

- 1. Through link
- 2. QR Code

1. Link:

Go to the Mobile App tab in browser and click on the <u>link</u>. It will direct you to the below web page.

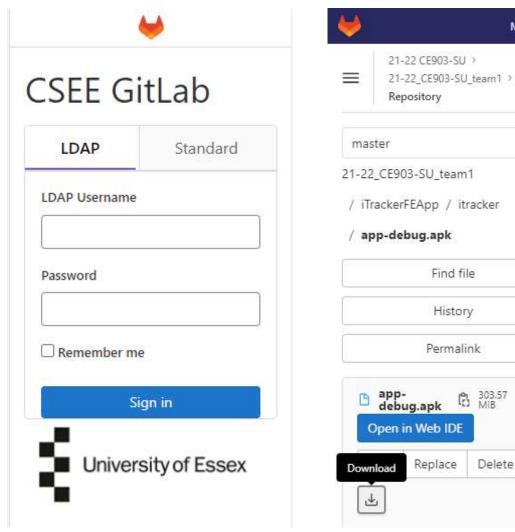


Figure 1 : Login Page

Figure 2: Download page

After filling your credentials, you will be directed to the above page where you'll have to select the download button.

Menu ≡



2. QR Code:

Open one of the QR Code Scanner application on your mobile. Click on the QR Code Reader icon to open the application and focus the scanner on the QR code on the web page as shown in the image. It will direct you to the same login page from where you can download the application.



Figure 3 : QR Code



4.0 User - PRIVILEGES

Following features can be availed by the guest user.

- > Track Real Time Activities
- > Calorie's count
- > Activity user log

4.1 Track Real Time Activities

Launch the application by clicking on the i-Tracker icon on your mobile as shown in the image below.



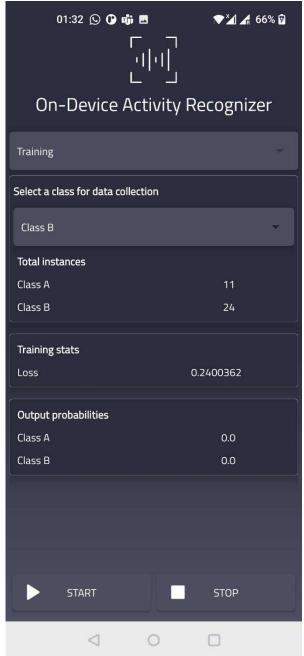
Figure 4: Application Icon

Figure 5 : Application Interface

Figure 6 : Data Collection

Launch the Application shown in the Figure 4. After launching the application to start the real-time data collection we have to click on the start button. Application will start collecting the data, once one activity is done, select 2nd class.





▼¾1 🔏 66% 🛭 01:32 🕓 🗘 🞳 🗷 On-Device Activity Recognizer Inference Select a class for data collection Class B Total instances Class A Class B Training stats Loss 0.17944531 Output probabilities Class A 0.0208 Class B 0.9792 **START** STOP 0

Figure 7 : Model Training

Figure 8: Prediction

Once the data is collected, we can help the model to train on the collected data as shown in the figure 7 and the loss will be shown as output.

Once the model is trained, we can start the prediction and the application display the output in the form of probability.