Beacon-based Indoor Localization by using Android Device

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Abstract

I. INTRODUCTION

II. system construction

i. hardware

1.Beacon

2.Android device

ii. software

1. server platform: Django
2. real-time checking on website:

a. Google map API JavaScript

b. Sending request and retrieve data from server

1. real-time checking on Android:

a. Android API on Bluetooth Device and google map

b. Multiple threads processing

III. mathematical foundation

1. regression
2. RSSI

IV. Conclusion and potential improvement