

# CEET: Cooperative Energy Efficient Tracking System Using Smartphones



## INVENTION

A smartphone application that enables continuous tracking of people without depleting the phone batteries. It cracks the main drawback of using smartphone in tracking by solving the issue of limited capacity of phone batteries.

## MARKET SIZE AND GROWTH

The global market for real time location services/systems should grow from \$3.7 billion in 2019 to reach \$10.6 billion by 2024 at a compound annual growth rate (CAGR) of 23.6% for the period of 2019-2024.

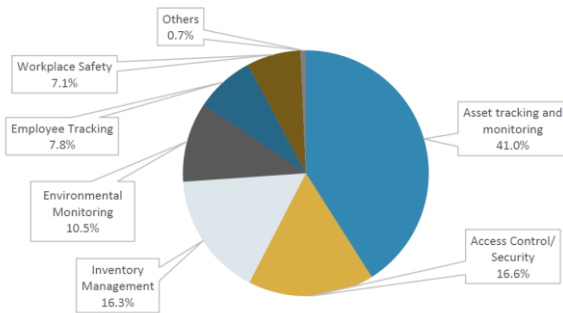


Figure 1: Global Market Shares of RTLS Technologies, by End-Use Application, 2024 (%). Source: BCC Research

## APPLICATIONS

- Tracking and monitoring of people in crowded events especially those who need continuous monitoring of their health status such as elderly and chronic patients.
- Cooperative Positioning for Vehicular Networks.

## ADVANTAGES

- **Energy Efficiency.** It reduces the smartphone battery usage of both GPS and internet communication.
- **It doesn't need extra investment** on the network infrastructure neither the phone specifications
- **Easy to deploy.** Deploying the system only requires to install an application to their phones from public application store such as Google Play and Apple stores.

## PROJECT STATUS

All experiments to evaluate the performance and feasibility of the system have been conducted.

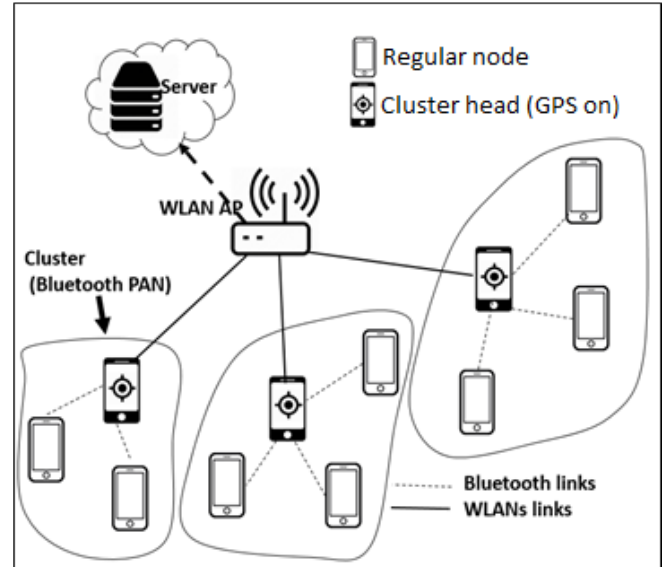


Figure 2: Overview of the cooperative tracking system

## LOOKING FOR DEVELOPMENT PARTNER

KFUPM seeks an industrial partner to collaborate on deploying the system in real life environment, developing an enhanced version (v2.0) and intensive marketing of this product.

## PATENT PROTECTION

A patent application number 16713931 covering this system has been filed in the USA. KFUPM would like to talk to companies as described above that are interested in developing this technology.

## ABOUT KFUPM

KFUPM was established in year 1963 and is located in Dhahran city of Saudi Arabia. KFUPM currently ranks at 163 in QS World University Rankings 2022. KFUPM's Innovation & Technology Transfer office strives for taking innovation from lab to market place.

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