Roommates An Unsupervised Indoor Peer Discovery Approach for LTE D2D Communications
ABSTRACT

• In this paper, we propose ROOMMATEs, a novel approach for indoor peer discovery process, which is the enabler for indoor D2D communications in LTE networks.

• It is a centralized approach utilizing, but not limited to, the ubiquitous WiFi network/femtocell network, combining with eNodeB in order to deliver the best results.

• ROOMMATEs is an unsupervised, yet energy efficient algorithm that can find surrounding User Equipment while minimizing interference and consuming much less energy.
EXISTING SYSTEM

• Recently, there has been an increasing interest in offloading the 3GPP LTE data by using Device-to-Device communications between devices.
• However, the peer discovering is challenging, especially in the indoor environment, since traditionally, users use cellular signal to find peers, leading to incurring interference to other cellular users.
• The communication channel defined in ProSe is D2D communication, which requires the colocation information of UEs.
PROPOSED SYSTEM

• The framework is vital for ProSe services as well as LTE-Direct as it provides a list of available UEs and their co-location information.

• Roommates’s efficiency is compared to other state-of-the-art approaches in both the field of indoor localization, and power control in wireless networks.

• In a promotion or advertising applications, stores could send coupons to shoppers if the shoppers are close by the stores.

• They can even display information about products in the isles where customers are located.
HARDWARE REQUIREMENTS

• Processor  -  Intel core i3
• RAM  -  2B
• Hard Disk  -  20 GB
SOFTWARE REQUIREMENTS

• Operating System : LINUX
• Tool : Network Simulator-2
• Front End : OTCL (Object Oriented Tool Command Language)
REFERENCE


