**ABSTRACT**

Contextual information of mobile devices is necessary in location based services. This location information is used in extending tracking objects or navigation services from outdoor to indoor. High quality services are provided by GPS in outdoor applications. Since GPS is not providing accurate positioning in indoor many researchers move on to indoor positioning with different technologies like Blue Tooth, UWB, WiFi and RFID. RFID based positioning is preferred due to low cost devices and improved accuracy. This proposed system is focused on Received Signal Strength measured from RFID tags. An experimental result shows better improvement when compared with regression and Gaussian algorithms. It can be used in real time applications for Location identification.