Indoor Positioning: A Review of Indoor Ultrasonic Positioning systems

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Abstract—**In order to provide location information for indoor applications and context-aware computing, a lot of research is being done since last decade for development of real-time Indoor location system. In this paper, we have investigated indoor location concepts and have focused two major technologies used in many indoor location systems i.e. RF and ultrasonic. An overview of various RF systems that use different RF properties for location estimation has been given. Ultrasonic systems have been reviewed in detail as they provide low cost fine grained location systems. A few well known ultrasonic location systems have been investigated with a comparison of the system based on performance, accuracy and limitations**

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Keyword— ***Indoor location system; Radio Frequency; Ultrasonic; Time of Arrival; Lateration***

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