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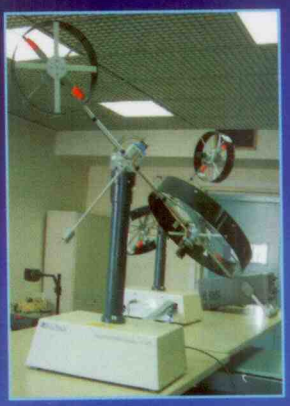

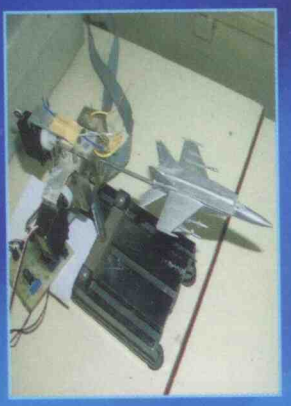

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A Survey on Range Free Localization Methods in Wireless Sensor Networks

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ABSTRACT

Wireless sensor networks, to be the future computing in many applications including home automation, industry, military. In all these applications it is necessary to accurately know from which point the data is sensed. The ideal WSN uses its knowledge of network organization and node location to serve the purpose(s) of the network and to achieve greater efficiency in operation .In WSN applications, one of the essential problems is the localization (position estimation) of the unknown sensor node for location-based service. Localization methods can be classified into two types, range based and range free methods. Most of the applications prefer over range free method due to the less additional hardware cost. In this paper we survey on different range free methods like Centroid, DV-Hop, Amorphous, APIT, PIT and SerLoc. We study on the effect of estimation error based on various system parameters.