Abstract

Wireless ad hoc network provides a short range communication medium for mobile devices. In such type of network the components satisfying the infrastructural needs are not presents and each functionalities needs to be performed by inbuilt elements of the nodes which let them work as a router. Routing is one of the key features performed by specifically designed light weighted protocols in these ad-hoc networks. It suffers from various issues includes route discovery, bandwidth management, congestion, location detection, energy effective operations, link handling etc. All of the above and many other functionality is mainly depends upon the position of the mobile nodes. Over the past few years location based networking technologies is changed very abruptly along with a horizontal and vertical growth in number of applications and its users. This dynamic change in topologies makes the task more difficult to resolve it accurately and with limited number or parameters. This paper proposes a novel MPLI ( Modified Parametric Location Identification) approach. Apart from only using the x and y coordinates, the suggested work added some more values which includes angle of arrival, time, distance and circular region quadrants for accurate detection. It also provides timely updates of positions so as to make the routing more robust and position aware so as to avoid data losses and connection termination due to mobility.
- H. Takagi and L. Kleinrock, "Optimal Transmission Ranges for Randomly

**Index Terms**

Computer Science

Communications

**Keywords**

MANET (Mobile Ad-Hoc Network)  Routing  AODV  Location Identification

Parametric Detection

MPLI (Modified Parametric Location Identification)