

SENSOR NETWORKS

Sensor networks are a significant technology attracting considerable research interest (about 80,000 papers on IEEE Xplore). Recent advances in wireless communications, electronics and sensor technology have enabled the development of low-cost, low-power wireless sensor that are small in size and communicate in short distances, the Wireless Sensor Networks (WSN). Unprecedented opportunities in monitoring and controlling homes, cities, and the environment will be by exploiting the technology of WSN. In addition, WSN have a broad spectrum of applications which can be distinguished in: indoor, outdoor and underwater applications. On the other hand, in emerging sensor network applications it is necessary to accurately orient the nodes with respect to a global coordinate system to report data that is geographically meaningful.

The purpose of this technical Session proposal is to focus on new algorithm of localization on WSN and its indoor, outdoor or underwater applications. Then the proposed TS contributions will range from system to locate objects or people inside a building using radio waves, magnetic fields, acoustic signals, or other sensory information (Indoor Positioning Systems, IPS) to outdoor GPS assisted positioning systems or underwater positioning systems based on acoustic, optical or mixed technologies.

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