

Nueng Jarunroungrok 2012: Precise Localization with Wireless Sensor Network.  
Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering,  
Department of Electrical Engineering. Thesis Advisor: Assistant Professor  
Dusit Thanapatay, Ph.D. 69 pages.

Distance estimation based on time delay is more accuracy than the estimation based on power attenuation method, but it is hard to handle and needs so complicated hardware.

The proposed model of this research based on time delay to estimate a distance by using basic hardware to send a signal from one device and then the other device send it back. So, the time delay can be determined by using phase difference between sending and receiving signals and number of sending signal cycle before receiving signal available at sending devices and use that time delay to estimate the distance.

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Student's signature

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Thesis Advisor's signature

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