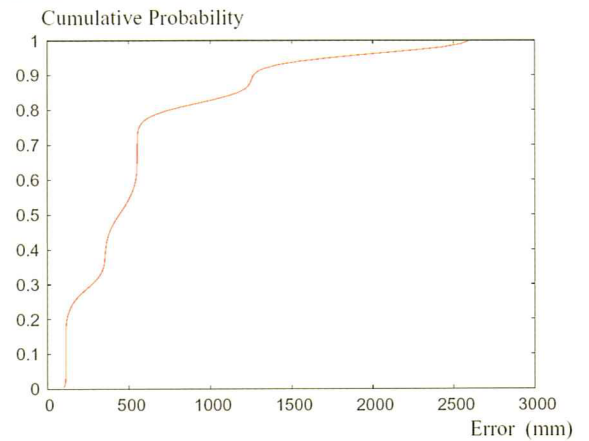


Mobile Technology

Orientation-Location Estimation And Orientation-Location Based Service Using Wireless LAN

Seigo ITO

Over the last few years, many positioning systems and information support systems using wireless LAN have been developed. Some systems use received signal strength of wireless LAN for positioning. But distribution of received signal strength differs depend on the orientation of the terminal. In our research, we examine difference of received signal strength distribution to each orientation, and propose an orientation-location estimation method using wireless LAN. For location estimation, we use Bayesian inference. In direction estimation step, we use Jensen-Shannon divergence. We implemented the system and exemplified its effectiveness with experiments at our campus.



Location estimation Accuracy Using Wireless LAN

Department of Information Engineering