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Author: Mr. THANGAVEL SANJEEVIRAJA India, stvaero@gmail.com

ANALYSIS OF DYNAMIC MULTIPATH MITIGATION FOR SATELLITE POSITIONING USING EFFICIENT QUASI-OPTIMAL ALGORITHMS

Abstract

This paper essentially presents a recursive quasi-optimal satellite selection algorithm for Future Global Navigation Satellite Systems (GNSS). It is enhanced to positioning accuracy and robustness with limited resources. The term of GNSS refers to these navigation systems based on a constellation of satellites, which produce ranging signals useful for positioning. Navigation systems have been providing a highly accurate, guaranteed global positioning service according to that number of functional blocks. The Quasioptimal algorithms used to find out the final position of satellites, this process itself a very sophisticated to design the navigation system which is the root cause for many researchers. It is envisaged to estimate the relative distance between the receiver and the number of visible satellites as set initially. These distances are calculated after estimating the delay suffered by the signal travelling from the emission at the corresponding satellite to its reception at the receiver's antenna. Estimation and tracking of these parameters are performed by the synchronized particular algorithm. The positioning algorithm starts it processes after the estimate the relative distance of satellites. Positioning is typically performed by a process referred to as unilateralism; this process is carried out by the intersection of a set of spheres centred on the visible satellites and finds the equivalent distance between each satellite. Consequently, synchronization and positioning are processes performed sequentially.