

A new observer for range identification in Perspective Vision Systems

A new pose estimation solution to the problem of range identification for perspective vision system is proposed. The proposed observer afford a on-line estimation of the 3D deviations of the aircraft w.r.t. the runway by using two-dimensional image measurements. The observer solution is based on high gains approach allowing exponential convergence. Simulations are presented with comparison with previous range identification techniques to show performance and robustness to noise of the new observer. Application to a civil aircraft landing is also proposed.