The Damped Modified Iterated Kalman Filter for Non-linear Discrete Time Systems.

Myoungho Oh; U Jin Choi

Abstract: The modified quasilinear filtering method has been proposed. This method produces more accurate filter coefficients than the standard quasilinear filtering method. To compute these coefficients, it suffices to know the distribution of the state vector of a stochastic system. It can be determined by using the software for statistical analysis of multidimensional nonlinear stochastic systems. All computations connected with the determination of coefficients of the modified quasilinear filters do not use the results of observations. Therefore they can be computed before the filter design. An example is also presented.