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**Acceleration of dynamic state estimation using Kalman filter.**

The input data for the dispatch control are the data on state variables at a considered time instant, which are processed by the state estimation methods. To improve the quality of the state estimation results we apply the algorithms that process retrospective data. The state estimation problem for which the initial data are represented by the state variable vectors measured at several time instants (measurement snapshots) is called dynamic state estimation. In this paper the dynamic state estimation is based on the extended Kalman filter. The acceleration is provided by reducing the complexity of the algorithm (by decreasing the dimensionality of some arrays) and paralleling several processes in the dynamic state estimation.

*Key words: dynamic state estimation, Kalman filter, measurement, covariance matrix.*

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