

PERFORMANCE ANALYSIS OF SOFT SENSING TECHNIQUE FOR A CONTINUOUS STIRRED TANK REACTOR

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ABSTRACT

This paper deals with the implementation of a soft sensor technique namely Extended Kalman Filter (EKF) to estimate the state vectors of CSTR process using LabVIEW. The state variables considered are concentration and temperature of reactants in the reactor. An extensive simulation study has carried out to assess the performance of EKF under various operating conditions and model uncertainties.

KEYWORD: Soft Sensor Technique, EKF, CSTR, GRV, MSE, Lab VIEW