Abstract:

EVOLVING FUZZY MODEL IDENTIFICATION FOR CONTROL AND PROCESS MONITORING

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The idea of evolving fuzzy model identification for control and monitoring is to estimate the fuzzy model parameters on-line, from the data stream. This means that we have to find the appropriate division of the input space and adapt the consequent parameters of the fuzzy model. This kind of approach is useful when we are dealing with nonlinear and time-varying processes because the fuzzy structure of the model has the capability of modelling a general nonlinear dynamical system. Evolving fuzzy model identification can be very efficiently implemented in different control and process monitoring schemes. In this talk it will be used in predictive control in pharmaceutical industry and in monitoring of waste-water treatment plant.