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Vortragsankündigung

Seminar Regelungssysteme LV 0430L654

Donnerstag, 29. Oktober 2015, 15:00 Uhr
Vortragsort: EN 223

Prof. Jianhua Zhang
East China University of Science and Technology, Shanghai, China

“A Self-Organizing Fuzzy Neural Network for Nonlinear System Control”

In this talk, we will design a self-organizing fuzzy neural network (SOFNN) by fuzzy rule learning and parameter learning. A hybrid learning algorithm, by combining backpropagation and recursive least-squares (RLS) algorithm with forgetting factor, will be used to learn the optimal parameters of the system. Furthermore, the performance of fuzzy system constructed will be evaluated in terms of the Schwarz & Rissanen information criterion (SRIC). The selection of the threshold parameter \emptyset in the proposed algorithm will also be discussed. Finally, several simulation examples of applying the proposed method to control of nonlinear systems will be presented and analyzed.