A new approach of fuzzy neural networks

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Abstract

In this paper, we develop a new approach to obtain fuzzy rule bases and present an improved fuzzy neural networks (FNN) model which consists of four layer neurons. The fuzzy rule bases could be extracted adaptively and directly from training sampled data, and the weights of fuzzy rules reflects the supported grades of the linguistic variables' value of each input to the antecedent fuzzy rules and the important degree of the fuzzy rule in fuzzy rule bases. In the proposed model, the structure and all the parameters such as the membership functions, the weights and so the number of fuzzy bases etc. would be adjusted optimally through back-propagation learning algorithm.

References

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