

1. Comparison of classic and Fuzzy set theory
2. Properties of Fuzzy sets
3. Operations on Fuzzy sets
4. Tautologies: modus ponens, modus tollens
5. Fuzzy relations, composition of relation
6. Structure of Fuzzy rule based systems
7. Mamdani type Fuzzy inference system
8. Sugeno type Fuzzy inference system
9. Defuzzification methods
10. Visual identification
11. Perceptron, Multi-level perceptron
12. Back propagation algorithm
13. Convolutional neural networks
14. Genetic algorithms
15. Tree partitioning methods
16. Simulated annealing algorithm
17. Shannon entropy