

## NPTEL Video Lecture Topic List - Created by Linuxpert Systems, Chennai

NPTEL Video Course - Electrical Engineering - NOC:Fuzzy Sets, Logic and Systems and Applications

Subject Co-ordinator - Prof. Nishchal K Verma

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction  
Lecture 2 - Introduction  
Lecture 3 - Fuzzy Sets and Fuzzy Logic Toolbox in MATLAB - I  
Lecture 4 - Fuzzy Sets and Fuzzy Logic Toolbox in MATLAB - II  
Lecture 5 - Membership Functions - I  
Lecture 6 - Membership Functions - II  
Lecture 7 - Nomenclatures used in Fuzzy Set Theory - I  
Lecture 8 - Nomenclatures used in Fuzzy Set Theory - II  
Lecture 9 - Nomenclatures used in Fuzzy Set Theory - III  
Lecture 10 - Set Theoretic Operations on Fuzzy Sets - I  
Lecture 11 - Set Theoretic Operations on Fuzzy Sets - II  
Lecture 12 - Properties of Fuzzy Sets - I  
Lecture 13 - Properties of Fuzzy Sets - II  
Lecture 14 - Properties of Fuzzy Sets - III  
Lecture 15 - Properties of Fuzzy Sets - IV  
Lecture 16 - Properties of Fuzzy Sets - V  
Lecture 17 - Distance between Fuzzy Sets - I  
Lecture 18 - Distance between Fuzzy Sets - II  
Lecture 19 - Distance between Fuzzy Sets - III  
Lecture 20 - Arithmetic Operations on Fuzzy Numbers - I  
Lecture 21 - Arithmetic Operations on Fuzzy Numbers - II  
Lecture 22 - Arithmetic Operations on Fuzzy Numbers - III  
Lecture 23 - Complement of Fuzzy Sets  
Lecture 24 - T-norm Operators  
Lecture 25 - S-norm Operators  
Lecture 26 - Parameterized T-Norm Operators  
Lecture 27 - Parameterized S-Norm Operators  
Lecture 28 - Fuzzy Relation - I  
Lecture 29 - Fuzzy Relation - II

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## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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- Lecture 30 - Operations on Crisp and Fuzzy Relations
- Lecture 31 - Projection of Fuzzy Relation Set
- Lecture 32 - Cylindrical Extension of Fuzzy Set
- Lecture 33 - Properties of Fuzzy Relation - I
- Lecture 34 - Properties of Fuzzy Relation - II
- Lecture 35 - Extension Principle
- Lecture 36 - Composition of Fuzzy Relations
- Lecture 37 - Properties of Composition of Fuzzy Relations
- Lecture 38 - Fuzzy Tolerance and Equivalence Relations - I
- Lecture 39 - Fuzzy Tolerance and Equivalence Relations - II
- Lecture 40 - Fuzzy Tolerance and Equivalence Relations - III
- Lecture 41 - Linguistic Hedges
- Lecture 42 - Linguistic Hedges and Negation/ Complement and Connectives
- Lecture 43 - Concentration and Dilation and Composite Linguistic Term and Some Examples
- Lecture 44 - Dilation and Composite Linguistic Term and Some Examples
- Lecture 45 - Some Examples on Composite Linguistic Terms
- Lecture 46 - Contrast Intensification of Fuzzy Sets
- Lecture 47 - Orthogonality of Fuzzy Sets
- Lecture 48 - Fuzzy Rules and Fuzzy Reasoning - I
- Lecture 49 - Fuzzy Rules and Fuzzy Reasoning - II
- Lecture 50 - Fuzzy Inference System
- Lecture 51 - Mamdani Fuzzy Model - I
- Lecture 52 - Mamdani Fuzzy Model - II
- Lecture 53 - Mamdani Fuzzy Model - III
- Lecture 54 - Example on Mamdani Fuzzy Model for Single Antecedent with Three Rules
- Lecture 55 - Example on Mamdani Fuzzy Model for Two Antecedents with Four Rules
- Lecture 56 - Larsen Fuzzy Model - I
- Lecture 57 - Larsen Fuzzy Model - II
- Lecture 58 - Larsen Fuzzy Model - III
- Lecture 59 - Tsukamoto Fuzzy Model
- Lecture 60 - TSK Fuzzy Model