

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

NPTEL Video Course - Computer Science and Engineering - NOC:Deep Learning (Prof. P.K. Biswas)

Subject Co-ordinator - Prof. P.K. Biswas

Co-ordinating Institute - IIT - Kharagpur

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

Lecture 1 - Introduction  
Lecture 2 - Feature Descriptor - I  
Lecture 3 - Feature Descriptor - II  
Lecture 4 - Bayesian Learning - I  
Lecture 5 - Bayesian Learning - II  
Lecture 6 - Discriminant Function - I  
Lecture 7 - Discriminant Function - II  
Lecture 8 - Discriminant Function - III  
Lecture 9 - Linear Classifier - I  
Lecture 10 - Linear Classifier - II  
Lecture 11 - Support Vector Machine - I  
Lecture 12 - Support Vector Machine - II  
Lecture 13 - Linear Machine  
Lecture 14 - Multiclass Support Vector Machine - I  
Lecture 15 - Multiclass Support Vector Machine - II  
Lecture 16 - Optimization  
Lecture 17 - Optimization Techniques in Machine Learning  
Lecture 18 - Nonlinear Functions  
Lecture 19 - Introduction to Neural Network  
Lecture 20 - Neural Network - II  
Lecture 21 - Multilayer Perceptron - I  
Lecture 22 - Multilayer Perceptron - II  
Lecture 23 - Backpropagation Learning  
Lecture 24 - Loss Function  
Lecture 25 - Backpropagation Learning- Example - I  
Lecture 26 - Backpropagation Learning- Example - II  
Lecture 27 - Backpropagation Learning- Example - III  
Lecture 28 - Autoencoder  
Lecture 29 - Autoencoder Vs PCA - I

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

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- Lecture 30 - Autoencoder Vs PCA - II
- Lecture 31 - Autoencoder Training
- Lecture 32 - Autoencoder Variants - I
- Lecture 33 - Autoencoder Variants - II
- Lecture 34 - Convolution
- Lecture 35 - Cross Correlation
- Lecture 36 - CNN Architecture
- Lecture 37 - MLP versus CNN, Popular CNN Architecture
- Lecture 38 - Popular CNN Architecture
- Lecture 39 - Popular CNN Architecture
- Lecture 40 - Vanishing and Exploding Gradient
- Lecture 41 - GoogleNet
- Lecture 42 - ResNet, Optimisers
- Lecture 43 - Optimisers
- Lecture 44 - Optimisers
- Lecture 45 - Optimisers
- Lecture 46 - Normalization
- Lecture 47 - Batch Normalization - I
- Lecture 48 - Batch Normalization - II
- Lecture 49 - Layer, Instance, Group Normalization
- Lecture 50 - Training Trick, Regularization, Early Stopping
- Lecture 51 - Face Recognition
- Lecture 52 - Deconvolution Layer
- Lecture 53 - Semantic Segmentation - I
- Lecture 54 - Semantic Segmentation - II
- Lecture 55 - Semantic Segmentation - III
- Lecture 56 - Image Denoising
- Lecture 57 - Variational Autoencoder - I
- Lecture 58 - Variational Autoencoder - II
- Lecture 59 - Variational Autoencoder - III
- Lecture 60 - Generative Adversarial Network