

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

NPTEL Video Course - Biotechnology - NOC:BioInformatics - Algorithms and Applications

Subject Co-ordinator - Prof. M. Michael Gromiha

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Concepts and importance of Bioinformatics
- Lecture 2 - Complexities in biological systems
- Lecture 3 - DNA sequence analysis
- Lecture 4 - Sequence based parameters
- Lecture 5 - Database
- Lecture 6 - Database categories
- Lecture 7 - Protein structure and function - I
- Lecture 8 - Protein structure and function - II
- Lecture 9 - Protein sequence databases - I
- Lecture 10 - Protein sequence databases - II
- Lecture 11 - Pairwise alignment - I
- Lecture 12 - Pairwise alignment - II
- Lecture 13 - Uniprot Demo
- Lecture 14 - Sequence alignment - I
- Lecture 15 - Sequence alignment - II
- Lecture 16 - Sequence alignment
- Lecture 17 - Sequence alignment
- Lecture 18 - Conservation score - I
- Lecture 19 - Conservation score - II
- Lecture 20 - Blast Demo
- Lecture 21 - Phylogenetic trees - I
- Lecture 22 - Phylogenetic trees - II
- Lecture 23 - Protein sequence analysis - I
- Lecture 24 - Protein sequence analysis - II
- Lecture 25 - Hydrophobicity profiles
- Lecture 26 - Patterns and PSSM profiles
- Lecture 27 - Construction of Non-redundant datasets - I
- Lecture 28 - Non-redundant datasets - II
- Lecture 29 - Protein secondary structure

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Lecture 30 - Secondary structure prediction - I
Lecture 31 - Secondary structure prediction - II
Lecture 32 - Secondary structure prediction - III
Lecture 33 - Protein tertiary structure - I
Lecture 34 - Protein tertiary structure - II
Lecture 35 - Protein structure analysis - I
Lecture 36 - Protein structure analysis - II
Lecture 37 - Protein structure analysis - III
Lecture 38 - Demo
Lecture 39 - Protein structure analysis - IV
Lecture 40 - Protein structure prediction - I
Lecture 41 - Protein structure prediction - II
Lecture 42 - Protein stability - I
Lecture 43 - Protein stability - II
Lecture 44 - Demo
Lecture 45 - Stabilizing residues
Lecture 46 - Thermodynamic database
Lecture 47 - Stability of proteins upon mutations - I
Lecture 48 - Stability of proteins upon mutations - II
Lecture 49 - Demo
Lecture 50 - Protein folding rate - I
Lecture 51 - Protein folding rate - II
Lecture 52 - Protein interactions - I
Lecture 53 - Protein interactions - II
Lecture 54 - Computer aided drug design - I
Lecture 55 - Computer aided drug design - II
Lecture 56 - Virtual screening - I
Lecture 57 - Virtual screening - II
Lecture 58 - QSAR - I
Lecture 59 - QSAR - II
Lecture 60 - Demo
Lecture 61 - awk programming - I
Lecture 62 - awk programming - II
Lecture 63 - Development of algorithms - I
Lecture 64 - Development of algorithms - II
Lecture 65 - Applications of bioinformatics - I
Lecture 66 - Applications of bioinformatics - II
Lecture 67 - Overview - I
Lecture 68 - Overview - II

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Lecture 69 - Demo