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

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NPTEL Video Course - Computer Science and Engineering - NOC: Algorithmic Game Theory
Subject Co-ordinator - Prof. Palash Dey
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - Assumptions of Game Theory
Lecture 3 - Examples of Games
Lecture 4 - Equilibrium Concepts
Lecture 5 - Nash Equilibrium
Lecture 6 - Indifference Principle
Lecture 7 - Security of Players
Lecture 8 - Minmax Theorem
Lecture 9 - Implications of Minmax Theorem
Lecture 10 - MSNEs of Matrix Games
Lecture 11 - Iterative Eliminations of Dominated Strategies
Lecture 12 - Iterative Eliminations of Dominated Strategies (Continued...)
Lecture 13 - Braess's paradox
Lecture 14 - Yao's Lemma and its applications
Lecture 15 - Support Enumeration Algorithm
Lecture 16 - Succinct game
Lecture 17 - Potential Games
Lecture 18 - Best Response Dynamics
Lecture 19 - Fast Convergence of Best Response Dynamics
Lecture 20 - Computing A Âu-PSNE for Network Congestion Games
Lecture 21 - PSNE for Congestion Games
Lecture 22 - PSNE for Symmetric Congestion Games
Lecture 23 - Functional NP
Lecture 24 - PPAD Class
Lecture 25 - Sperner's Lemma
Lecture 26 - Approximate MSNE Computation
Lecture 27 - Correlated Equilibrium
Lecture 28 - Coarse Correlated Equilibrium
Lecture 29 - External Regret Framework
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## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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Lecture 30 - Multiplicative Weight Algorithm
Lecture 31 - Multiplicative Weight Algorithm (Continued....)
Lecture 32 - Swap Regret and Correlated Equilibrium
Lecture 33 - Swap Regret to External Regret Reduction
Lecture 34 - Braess's paradox and Pigou's Network
Lecture 35 - PoA of Selfish Routing Game
Lecture 36 - PoA of Selfish Load Balancing Game
Lecture 37 - Bayesian Game
Lecture 38 - BNE of First Price Auction
Lecture 39 - Extensive Form Game
Lecture 40 - Mechanism Design Introduction
Lecture 41 - Implementation of Social Choice Functions
Lecture 42 - Revelation Principle
Lecture 43 - Properties of Social Choice Function
Lecture 44 - Gibbard-Satterthwaite Theorem
Lecture 45 - Ouasilinear Environment
Lecture 46 - Ex-Post Efficiency
Lecture 47 - VCG Mechanism
Lecture 48 - Example of VCG Mechanism
Lecture 49 - Weighted VCG
Lecture 50 - Affine Maximizer
Lecture 51 - Recap of Topics Discussed so Far
Lecture 52 - Single Parameter Domain
Lecture 53 - DSIC in Single Parameter Domain
Lecture 54 - Mayerson's Lemma
Lecture 55 - Sponsored Search Auction
Lecture 56 - Intermediate Domain
Lecture 57 - Algorithmic Mechanism Design
Lecture 58 - Stable Matching
Lecture 59 - Gale-Shapley Algorithm
Lecture 60 - Properties of Stable Matching
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