

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

NPTEL Video Course - Mechanical Engineering - NOC:Rapid Manufacturing

Subject Co-ordinator - Prof. J. Ramkumar

Co-ordinating Institute - IIT - Kanpur

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

Lecture 1 - Introduction to Rapid Manufacturing - Part 1  
Lecture 2 - Introduction to Rapid Manufacturing - Part 2  
Lecture 3 - Introduction to Rapid Manufacturing - Part 3  
Lecture 4 - Product Development Process - Part 1  
Lecture 5 - Product Development Process - Part 2  
Lecture 6 - Product Development Process - Part 3  
Lecture 7 - Design for Modularity (Manufacturing)  
Lecture 8 - Design for Modularity (Assembly; Part 1)  
Lecture 9 - Design for Modularity (Assembly; Part 2)  
Lecture 10 - Design for Modularity  
Lecture 11 - Subtractive versus Rapid Manufacturing  
Lecture 12 - Reverse Engineering - Part 1  
Lecture 13 - Reverse Engineering - Part 2  
Lecture 14 - Laboratory Demonstration, Co-ordinate Measuring Machine - Part 1  
Lecture 15 - Laboratory Demonstration, Co-ordinate Measuring Machine - Part 2  
Lecture 16 - Laboratory Demonstration, 3D scanners - Part 1  
Lecture 17 - Laboratory Demonstration, 3D scanners - Part 2  
Lecture 18 - Polymerization Processes - Part 1  
Lecture 19 - Polymerization Processes - Part 2  
Lecture 20 - Powder based processes - Part 1  
Lecture 21 - Powder based processes - Part 2  
Lecture 22 - Powder based processes - Part 3  
Lecture 23 - Extrusion based processes - Part 1  
Lecture 24 - Extrusion based processes - Part 2  
Lecture 25 - Sheet Stacking processes  
Lecture 26 - 3D printing processes  
Lecture 27 - Laboratory Demonstration, 3D printing - Part 1  
Lecture 28 - Laboratory Demonstration, 3D printing - Part 2  
Lecture 29 - Laboratory Demonstration, 3D printing - Part 3

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

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- Lecture 30 - Beam Deposition processes
- Lecture 31 - Materials in Rapid Manufacturing - Part 1
- Lecture 32 - Materials in Rapid Manufacturing - Part 2
- Lecture 33 - Post-processing concerns - Part 1
- Lecture 34 - Post-processing concerns - Part 2
- Lecture 35 - Product costing for Rapid Manufacturing - Part 1
- Lecture 36 - Product costing for Rapid Manufacturing - Part 2
- Lecture 37 - Rapid Product Development, CAD/CAM - Part 1
- Lecture 38 - Rapid Product Development, CAD/CAM - Part 2
- Lecture 39 - Rapid Product Development, CAD/CAM - Part 3
- Lecture 40 - Rapid Product Development, CAE and CIM
- Lecture 41 - Rapid Product Development, Technomatix, Plant Simulation 10 - Part 1
- Lecture 42 - Rapid Product Development, Technomatix, Plant Simulation 10 - Part 2
- Lecture 43 - Rapid Product Development, Technomatix, Plant Simulation 10 - Part 3
- Lecture 44 - Rapid Manufacturing, case studies