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

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NPTEL Video Course - Mechanical Engineering - Metal Casting
Subject Co-ordinator - Dr. D. B. Karunakar
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - Overview of different casting processes - 1
Lecture 3 - Overview of different casting processes - 2
Lecture 4 - Overview of different casting processes - 3
Lecture 5 - Terminology and Tools of Sand Moulding
Lecture 6 - Moulding Sands and Design - 1
Lecture 7 - Moulding Sands and Design - 2
Lecture 8 - Moulding Sands Properties
Lecture 9 - Moulding Sand Properties Testing
Lecture 10 - Cores and Core Sands
Lecture 11 - Patterns and Allowances
Lecture 12 - Steps Involved in Making a Sand Casting
Lecture 13 - Design of Risering System - 1
Lecture 14 - Design of Risering System - 2
Lecture 15 - Design of Risering System - 3
Lecture 16 - Design of Risering System - 4
Lecture 17 - Design of Risering System - 5
Lecture 18 - Design of Gating System - 1
Lecture 19 - Design of Gating System - 2
Lecture 20 - Sand Casting Defects - 1
Lecture 21 - Sand Casting Defects - 2
Lecture 22 - Melting Furnaces and Practice
Lecture 23 - Treatment of Molten Metal
Lecture 24 - Fluidity of Molten Metal
Lecture 25 - Solidification
Lecture 26 - Cast Irons and Steels
Lecture 27 - Aluminum and Magnesium Cast Alloys
Lecture 28 - Copper, Zinc and Titanium Cast Alloys
Lecture 29 - Die Casting Process - I
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Lecture 30 - Die Casting Process - II

Lecture 31 - Investment Casting Process - I

Lecture 32 - Investment Casting Process - II

Lecture 33 - Continuous Casting Process

Lecture 34 - Centrifugal Casting Process

Lecture 35 - Evaporative Pattern Casting and Plaster Moulding

Lecture 36 - Vacuum Sealed Moulding and Squeeze Casting

Lecture 37 - Shakeout, Fettling and Finishing

Lecture 38 - Inspection, Testing and Quality Control

Lecture 39 - Design Consideration and Economics

Lecture 40 - Environment, Health and Safety Aspects
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