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

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NPTEL Video Course - Mechanical Engineering - NOC: Smart Materials and Intelligent System Design
Subject Co-ordinator - Prof. Bisakh Bhattacharya
Co-ordinating Institute - IIT - Kanpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Smart Materials
Lecture 2 - Piezoelectric Material
Lecture 3 - Magnetostrictive Material
Lecture 4 - Active Smart Polymer
Lecture 5 - Shape Memory Alloys
Lecture 6 - Introduction to composites
Lecture 7 - Classification of Composites
Lecture 8 - Micromechanics and Macromechanics of Composites
Lecture 9 - Classical Laminated Plate Theory
Lecture 10 - ABD Matrices
Lecture 11 - Modelling of piezoelectric material 1
Lecture 12 - Modelling of piezoelectric material 2
Lecture 13 - Modelling of Magnetostrictive material
Lecture 14 - Modelling of Shape memory Alloys
Lecture 15 - Smart Actuators
Lecture 16 - Smart Materials based MEMS
Lecture 17 - Smart MEMS Applications
Lecture 18 - Energy Harvesting
Lecture 19 - Concept of Self Healing
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