

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

NPTEL Video Course - Architecture - NOC:Bioclimatic Architecture: Futureproofing with Simple and Advanced Passive Strategies

Subject Co-ordinator - Prof. Iyer Vijayalaxmi Kasinath

Co-ordinating Institute - School of Planning and Architecture, Vijayawada

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

- Lecture 1 - Introduction to Bioclimatic Architecture
- Lecture 2 - Strategies for Bioclimatic Architecture
- Lecture 3 - Simple Passive Strategies - Introduction
- Lecture 4 - Principles of Simple Passive Architecture
- Lecture 5 - Advanced Passive Strategies - Passive Heating Strategies
- Lecture 6 - Advanced Passive Strategies - Cooling Strategies
- Lecture 7 - Classification of Climate
- Lecture 8 - Climate Zones of India
- Lecture 9 - Climate characteristics in India - warm-humid, hot dry
- Lecture 10 - Climate characteristics of composite climate
- Lecture 11 - Climate characteristics of temperate climate and cold climate
- Lecture 12 - Thermal Comfort and Thermal Comfort Models
- Lecture 13 - Mahoney's Tables
- Lecture 14 - Bioclimatic chart and Psychrometric Chart
- Lecture 15 - Simple Graphic tools to understand climate - Climate Consultant
- Lecture 16 - Orientation and form
- Lecture 17 - Openings - Size, Position, Shading device - Part 1
- Lecture 18 - Openings - Size, Position, Shading device - Part 2
- Lecture 19 - Urban Heat Island
- Lecture 20 - Earth Sheltering
- Lecture 21 - Solar Chimney
- Lecture 22 - Roof Pond System
- Lecture 23 - High Performance Glazing
- Lecture 24 - Double Roofing
- Lecture 25 - Cool Roof
- Lecture 26 - Thermal Mass and Night Flushing
- Lecture 27 - Double skin green facade
- Lecture 28 - solar air collectors
- Lecture 29 - Passive down draught evaporative cooling

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- Lecture 30 - Direct Evaporative cooling
- Lecture 31 - Root Zone Treatment
- Lecture 32 - Trombe Wall and Water Wall
- Lecture 33 - Thermosiphon Solar Air Heater
- Lecture 34 - Wind towers
- Lecture 35 - Cavity walls
- Lecture 36 - Sunspace
- Lecture 37 - Green Roof
- Lecture 38 - PCM with Glazing
- Lecture 39 - Earth Air Tunnels
- Lecture 40 - Radiant Cooling System
- Lecture 41 - Passive Design Strategies for Moderate Climate
- Lecture 42 - Case study of Moderate climate
- Lecture 43 - Passive Design Strategies for cold climate and case studies
- Lecture 44 - Passive Design Strategies for Warm-Humid climate and case studies
- Lecture 45 - Passive Design Strategies for Hot-Dry climate
- Lecture 46 - Case studies - Hot-dry climate
- Lecture 47 - Passive Design Strategies for Composite climate and Case studies
- Lecture 48 - Recap and Conclusion