

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

NPTEL Video Course - General - Introduction to Japanese Language and Culture

Subject Co-ordinator - Mrs. Vatsala Misra

Co-ordinating Institute - IIT - Kanpur

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

- Lecture 1 - Introduction to Japanese scripts
- Lecture 2 - Jiko shoukai (Self introduction)
- Lecture 3 - Dochira kara desu ka ( Where are you from?)
- Lecture 4 - Senmon wa nan desu ka (What is your specialization?)
- Lecture 5 - Kore wa hon desu (This is a book)
- Lecture 6 - Ikura desu ka (How much is it?)
- Lecture 7 - Ima nan-ji desu ka (What is the time now?)
- Lecture 8 - Kaigi wa roku-ji-han kara desu (The meeting is from 6
- Lecture 9 - Ashita Tokyo e ikimasu. (I will go to Tokyo tomorrow)
- Lecture 10 - Watashi wa mainichi roku-ji ni okimasu (I wake up at 6 o'clock everyday)
- Lecture 11 - Itsu Kanpur e kimashita ka (When did you come to Kanpur?)
- Lecture 12 - Y?binkyoku wa asoko ni arimasu (The post office is over there)
- Lecture 13 - Rao san wa doko ni imasu ka (Where is Mr. Rao?)
- Lecture 14 - Pikuniku e ikimash? (Let's go for a picnic)
- Lecture 15 - Kesa pan to tamago o tabemashita (I ate eggs and bread for breakfast)
- Lecture 16 - Depa-to no tonari no biru wa gink? desu (The building next to the department store is the bank)
- Lecture 17 - Taj hoteru wa ookii hoteru desu(Hotel Taj is a big hotel)
- Lecture 18 - Hoteru de nani o tabemashita ka (What did you eat at the hotel?)
- Lecture 19 - Tokyo wa ?kikute kirei desu (Tokyo is big and beautiful)
- Lecture 20 - Ko-hi- wa oishiku arimasen(Coffee is not tasty)
- Lecture 21 - Hantai kotoba (Opposites)
- Lecture 22 - Watashi wa mainichi miruku o nomimasu (I drink milk everyday)
- Lecture 23 - Watashi wa oniisan ni kamera o moratta(I received a camera from my brother)
- Lecture 24 - Nani o tabetai desu ka(What do you want to eat?)
- Lecture 25 - Nani o sashiagemasu ka (Giving and Receiving)
- Lecture 26 - Sensei wa watashi ni hon o kuremashita (My teacher gave me a book)
- Lecture 27 - Chotto matte kudasai ( Just a minute please)
- Lecture 28 - Ke-ki o tabete mite kudasai ( Eat and see how is the cake)
- Lecture 29 - Nani o shite imasu ka(What are you doing?)

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- Lecture 30 - Tokyo ni sunde imasu ( I live in Tokyo)
- Lecture 31 - Kanji ga kakemasu (I can write Kanji)
- Lecture 32 - Im?to wa ningy? o hoshigatte imasu (My sister wants a doll)
- Lecture 33 - Aisukuri-mu ga ke-ki yori suki desu (I like ice-cream more than cakes)
- Lecture 34 - Kutsu o kai ni ikimasu ( I am going to buy shoes)
- Lecture 35 - Ashita motto atsuku narimasu (It is going to become very hot tomorrow)
- Lecture 36 - Rainen Tokyo e iku to omoimasu (I think I will go to Tokyo next year)
- Lecture 37 - Pen de kaite mo ii desu ka(Is it alright to write in pen?)
- Lecture 38 - Comprehensions and Expressions
- Lecture 39 - Basic Kanji
- Lecture 40 - Basic Kanji

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

NPTEL Video Course - General - Astronomy in Ancient, Medieval and Early Telescopic Era of India

Subject Co-ordinator - Prof. Amitabha Ghosh

Co-ordinating Institute - IIT - Kanpur

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

Lecture 1 - Introduction

Lecture 2 - Pre Siddhantic Astronomy

Lecture 3 - Siddhantic Astronomy

Lecture 4 - Astronomy in Medieval India

Lecture 5 - Introduction to Telescopic Astronomy and Concluding remarks

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

NPTEL Video Course - General - NOC:Stress Management

Subject Co-ordinator - Prof. Rajlakshmi Guha

Co-ordinating Institute - IIT - Kharagpur

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

- Lecture 1 - What is Stress
- Lecture 2 - Sources of stress
- Lecture 3 - Types of Stress
- Lecture 4 - Personality Factors and Stress
- Lecture 5 - Stress and the College Student
- Lecture 6 - Stress and Nervous System
- Lecture 7 - Hypothalamic-Pituitary-Adrenal (HPA) Axis
- Lecture 8 - Effect of Stress on Immune System
- Lecture 9 - Health Risk Associated with Chronic Stress
- Lecture 10 - Stress and Major Psychiatric Disorders
- Lecture 11 - Understanding your stress level
- Lecture 12 - Role of Personality Pattern, Self Esteem, Locus of Control
- Lecture 13 - Role of Thoughts Beliefs and Emotions - I
- Lecture 14 - Role of Thoughts Beliefs and Emotions - II
- Lecture 15 - Life Situation Intrapersonal
- Lecture 16 - Developing Cognitive Coping Skills
- Lecture 17 - Autogenic Training, Imagery and Progressive Relaxation
- Lecture 18 - Other Relaxation Techniques
- Lecture 19 - Exercise and Health
- Lecture 20 - DIY Strategies Stress Management

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

NPTEL Video Course - General - NOC:Outcome Based Pedagogic Principles for Effective Teaching

Subject Co-ordinator - Prof. Shyamal Kumar Das Mandal

Co-ordinating Institute - IIT - Kharagpur

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

Lecture 1 - Introduction to Need of 21st Century Education

Lecture 2 - Accreditation

Lecture 3 - Outcome based Learning

Lecture 4 - Approach to Design Outcome based Learning

Lecture 5 - Approach to Design Outcome based Learning (Continued...)

Lecture 6 - Instructional Design for Active Learning

Lecture 7

Lecture 8

Lecture 9

Lecture 10

Lecture 11

Lecture 12

Lecture 13

Lecture 14

Lecture 15

Lecture 16

Lecture 17

Lecture 18

Lecture 19

Lecture 20

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

NPTEL Video Course - General - Ayurvedic Inheritance of India

Subject Co-ordinator - Dr. M.S. Valiathan

Co-ordinating Institute - Manipal University

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

- Lecture 1 - Roots of Ayurveda
- Lecture 2 - Traditional Medicine in Buddhist India
- Lecture 3 - Period of Systematization
- Lecture 4 - Philosophical ideas in Ayurveda
- Lecture 5 - Human Body in Health
- Lecture 6 - Human Body in Disease
- Lecture 7 - Food and Drinks
- Lecture 8 - Code for Healthy Living
- Lecture 9 - Diseases
- Lecture 10 - Diagnosis and Prognosis
- Lecture 11 - Medical Treatment of Diseases
- Lecture 12 - Materia Medica
- Lecture 13 - Surgical Treatment of Diseases
- Lecture 14 - Surgical Instruments
- Lecture 15 - Treatment of fractures; some surgical procedures
- Lecture 16 - Principles and methods of rejuvenation
- Lecture 17 - Selection of Students
- Lecture 18 - A Science Initiative in Ayurveda (ASIIA)
- Lecture 19 - Ayurvedic Biology
- Lecture 20 - Conclusion

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

NPTEL Video Course - General - NOC:Introduction to Research

Subject Co-ordinator - Dr. G. Phanikumar, Prof. C. Balaji, Dr. Arun K.Tangirala, Dr. Abhijit P. Deshpande, Pr

Co-ordinating Institute - IIT - Madras

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

Lecture 1 - Insight into research

Lecture 2 - Role of Guide and Student

Lecture 3 - Art of Re-Search

Lecture 4 - Persistent small steps towards success

Lecture 5 - Overview of research

Lecture 6 - Overview of Literature Survey

Lecture 7 - Literature Survey using Web of Science

Lecture 8 - Literature Survey using Scopus

Lecture 9 - Writing Up

Lecture 10 - Tutorial on using BibTeX with LaTeX to add references to a document

Lecture 11 - Tutorial on using Microsoft Word with Bibliographic Sources

Lecture 12 - Tutorial on using Microsoft Word with endnote entries

Lecture 13 - Experimental skills

Lecture 14 - Data analysis - Part 1

Lecture 15 - Data analysis - Part 2

Lecture 16 - Modelling skills - Part 1

Lecture 17 - Modelling skills - Part 2

Lecture 18 - Safety in laboratory

Lecture 19 - How to make Technical presentation

Lecture 20 - Creativity in Research - Part 1

Lecture 21 - Creativity in research - Part 2

Lecture 22 - Creativity in research - Part 3

Lecture 23 - Technical Writing

Lecture 24 - Group discussion on Ethics in Research

Lecture 25 - Intellectual property - Part 1

Lecture 26 - Intellectual property - Part 2

Lecture 27 - DOE Part 1

Lecture 28 - DOE part 2

Lecture 29 - DOE part 3

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- Lecture 30 - DOE part 4
- Lecture 31 - DOE part 5
- Lecture 32 - Research in Applied Mechanics
- Lecture 33 - Research in Chemical Engineering
- Lecture 34 - Research in Civil Engineering
- Lecture 35 - Research in Computer Science and Engineering
- Lecture 36 - Research in Engineering Design
- Lecture 37 - Research in Humanities and Social Sciences
- Lecture 38 - Research in Mechanical Engineering
- Lecture 39 - Research in Metallurgical and Materials Engineering
- Lecture 40 - Research in Ocean Engineering
- Lecture 41 - Research in Management Studies
- Lecture 42 - Research in Aerospace Engineering
- Lecture 43 - Research in Biotechnology
- Lecture 44 - Research in Chemistry
- Lecture 45 - Research in Electrical Engineering
- Lecture 46 - Research in Mathematics
- Lecture 47 - Research in Physics
- Lecture 48 - Discussion with Research Scholars



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

NPTEL Video Course - General - NOC: Biology for engineers and other non-biologists

Subject Co-ordinator - Dr. Madhulika Dixit, Prof. G.K. Suraishkumar

Co-ordinating Institute - IIT - Madras

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

Lecture 1 - Introduction  
Lecture 2 - Origin of Life  
Lecture 3 - Evolution  
Lecture 4 - Cells  
Lecture 5 - Biomolecules  
Lecture 6 - Biomolecules  
Lecture 7 - Biomolecules  
Lecture 8 - Biomolecules  
Lecture 9 - Biomolecules  
Lecture 10 - Cell structure and function ^ Prokaryotes  
Lecture 11 - Cell structure and function ^ Eukaryotes  
Lecture 12 - Cell cycle  
Lecture 13 - Cell division ^ mitosis  
Lecture 14 - Cell division ^ meiosis  
Lecture 15 - Culture growth  
Lecture 16 - Mendelian genetics  
Lecture 17 - Mendelian genetics  
Lecture 18 - Mendelian genetics  
Lecture 19 - Mendelian genetics  
Lecture 20 - DNA replication  
Lecture 21 - Transcription  
Lecture 22 - Translation

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

NPTEL Video Course - General - NOC:Digital and the Everyday - from Codes to Cloud

Subject Co-ordinator - Prof. Amit Prakash, Prof. Bidisha Chaudhuri

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Introduction to the Course
- Lecture 2 - Introduction to the Winter School
- Lecture 3 - Socio-algorithmic processes and the Everyday - Part 1
- Lecture 4 - Socio-algorithmic processes and the Everyday - Part 2
- Lecture 5 - Socio-algorithmic processes and the Everyday - Part 3
- Lecture 6 - Data Protection and Privacy Regulation in the Digital Era - Part 1
- Lecture 7 - Data Protection and Privacy Regulation in the Digital Era - Part 2
- Lecture 8 - Data Protection and Privacy Regulation in the Digital Era - Part 3
- Lecture 9 - Data-driven Identities - Part 1
- Lecture 10 - Data-driven Identities - Part 2
- Lecture 11 - Data-driven Identities - Part 3
- Lecture 12 - Promises and Challenges of e-Health - Part 1
- Lecture 13 - Promises and Challenges of e-Health - Part 2
- Lecture 14 - Promises and Challenges of e-Health - Part 3
- Lecture 15 - Digital Finance - Part 1
- Lecture 16 - Digital Finance - Part 2
- Lecture 17 - Digital and our everyday interactions with the state - Part 1
- Lecture 18 - Digital and our everyday interactions with the state - Part 2
- Lecture 19 - Digital and our everyday interactions with the state - Part 3
- Lecture 20 - Creating a Machine Zone through Affected Feedback
- Lecture 21 - Creating a Machine Zone through Affected Feedback
- Lecture 22 - Creating a Machine Zone through Affected Feedback

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

NPTEL Video Course - General - NOC:Effective Engineering Teaching in Practice

Subject Co-ordinator - Prof. G.K. Suraishkumar

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Introduction to the course
- Lecture 2 - An Inexperienced Engineering Teacher's View
- Lecture 3 - From traditional lecturing to helping students learn - 1
- Lecture 4 - From traditional lecturing to helping students learn - 2
- Lecture 5 - Better learning (Bloom's Taxonomy)
- Lecture 6 - Problem based learning (PBL) and Problem Solving - Part 1
- Lecture 7 - Problem based learning (PBL) and Problem Solving - Part 2
- Lecture 8 - Writing Learning Outcomes for a Course
- Lecture 9 - Active Learning
- Lecture 10 - Cooperative Group Learning
- Lecture 11 - Flipped Classroom
- Lecture 12 - Effective Laboratory Courses
- Lecture 13 - Assessment - Part 1
- Lecture 14 - Assessment - Part 2
- Lecture 15 - How can we use research in education? - Part A1
- Lecture 16 - How can we use research in education? - Part A2
- Lecture 17 - The Class, as a Whole - Part A3
- Lecture 18 - Psychological Type (Orientation) and Learning - Part B
- Lecture 19 - Cognitive Development Theories - Two Main Examples - Part C
- Lecture 20 - Learning Theories - Part D
- Lecture 21 - Feedback and Reflection - Part 1
- Lecture 22 - Feedback and Reflection - Part 2
- Lecture 23 - Feedback and Reflection - Part 3
- Lecture 24 - Live Session 1
- Lecture 25 - Live Session 2

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

NPTEL Video Course - General - NOC:Virtual Reality Engineering

Subject Co-ordinator - Dr. M. Manivannan

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Course mechanics
- Lecture 2 - Goals and VR definitions
- Lecture 3 - Historical perspective
- Lecture 4 - Birds-eye view (general)
- Lecture 5 - Birds-eye view (general) (Continued...)
- Lecture 6 - Birds-eye view (hardware)
- Lecture 7 - Birds-eye view (software)
- Lecture 8 - Birds-eye view (sensation and perception)
- Lecture 9 - Geometric modeling
- Lecture 10 - Transforming models
- Lecture 11 - Matrix algebra and 2D rotations
- Lecture 12 - 3D rotations and yaw, pitch, and roll
- Lecture 13 - 3D rotations and yaw, pitch, and roll (Continued...)
- Lecture 14 - Axis-angle representations
- Lecture 15 - Quaternions
- Lecture 16 - Converting and multiplying rotations
- Lecture 17 - Converting and multiplying rotations (Continued...)
- Lecture 18 - Homogeneous transforms
- Lecture 19 - The chain of viewing transforms
- Lecture 20 - Eye transforms
- Lecture 21 - Eye transforms (Continued...)
- Lecture 22 - Canonical view transform
- Lecture 23 - Viewport transform
- Lecture 24 - Viewport transform (Continued...)
- Lecture 25 - Three interpretations of light
- Lecture 26 - Refraction
- Lecture 27 - Simple lenses
- Lecture 28 - Diopters
- Lecture 29 - Imaging properties of lenses

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- Lecture 30 - Lens aberrations
- Lecture 31 - Optical system of eyes
- Lecture 32 - Photoreceptors
- Lecture 33 - Sufficient resolution for VR
- Lecture 34 - Light intensity
- Lecture 35 - Eye movements
- Lecture 36 - Eye movements (Continued...)
- Lecture 37 - Eye movement issues for VR
- Lecture 38 - Neuroscience of vision
- Lecture 39 - Three Psychophysical Laws
- Lecture 40 - Sensation and Perception
- Lecture 41 - Psychophysics of Visual Perception
- Lecture 42 - Gamma Encoding
- Lecture 43 - Limiting Resolution
- Lecture 44 - Depth perception
- Lecture 45 - Depth perception (Continued...)
- Lecture 46 - Motion perception from Visual System
- Lecture 47 - Frame rates and displays
- Lecture 48 - Frame rates and displays (Continued...)
- Lecture 49 - Psychophysics of Depth Perception
- Lecture 50 - Overview
- Lecture 51 - Orientation tracking
- Lecture 52 - Tilt drift correction
- Lecture 53 - Yaw drift correction
- Lecture 54 - Tracking with a camera
- Lecture 55 - Perspective n-point problem
- Lecture 56 - Filtering
- Lecture 57 - Lighthouse approach
- Lecture 58 - Visual Rendering-Overview
- Lecture 59 - Visual Rendering-overview (Continued...)
- Lecture 60 - Shading models
- Lecture 61 - Rasterization
- Lecture 62 - Pixel shading
- Lecture 63 - VR-specific problems
- Lecture 64 - Distortion shading
- Lecture 65 - Post-rendering image warp
- Lecture 66 - Why Haptics?
- Lecture 67 - What is Haptics?
- Lecture 68 - Branches of Haptics

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- Lecture 69 - Human Haptics - Tactile System
- Lecture 70 - Kinesthetic System
- Lecture 71 - Motor System
- Lecture 72 - Haptic Devices and Interfaces - Kinesthetic Devices
- Lecture 73 - Haptic Devices and Interfaces - Tactile Devices
- Lecture 74 - Physics and Physiology
- Lecture 75 - Auditory perception
- Lecture 76 - Auditory localization
- Lecture 77 - Rendering
- Lecture 78 - Spatialization and display
- Lecture 79 - Combining other senses
- Lecture 80 - Interfaces -overview
- Lecture 81 - Evaluation of VR Systems
- Lecture 82 - Social interaction
- Lecture 83 - System control
- Lecture 84 - Manipulation
- Lecture 85 - Locomotion
- Lecture 86 - Principles of Perception
- Lecture 87 - Introduction to Kalman Filter
- Lecture 88 - Introduction to Extended Kalman Filter
- Lecture 89 - Grand Challenges in VR/AR
- Lecture 90 - Ultimate VR/AR System

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

NPTEL Video Course - General - NOC:Non-Conventional Energy Resources

Subject Co-ordinator - Dr. Prathap Haridoss

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Renewable Energy Technologies
- Lecture 2 - Energy Usage by Humans - Estimate of Impact on Atmosphere
- Lecture 3 - Conventional Sources of Energy
- Lecture 4 - Non-Conventional Sources of Energy - An Overview
- Lecture 5 - Energy consumption
- Lecture 6 - Details of Energy usage in each sector
- Lecture 7 - Consequences of Energy consumption
- Lecture 8 - Solar Energy incident on Earth, Solar Spectrum
- Lecture 9 - The Solar Energy Budget
- Lecture 10 - Electromagnetic Radiation - The Solar Spectrum
- Lecture 11 - Solar flat plate collector
- Lecture 12 - Solar Radiator
- Lecture 13 - Solar Energy - The Semiconductor
- Lecture 14 - Solar energy - The p-n junction
- Lecture 15 - Solar Cell - Growing the single crystal and making the p-n junction
- Lecture 16 - Solar Energy - Interaction of p-n junction with radiation
- Lecture 17 - Solar Energy - Solar cell characteristics and usage
- Lecture 18 - Solar Energy - Solar cell construction
- Lecture 19 - Solar Energy - Solar Photocatalysis
- Lecture 20 - Wind Energy - Overview
- Lecture 21 - Wind Energy - Energy Considerations
- Lecture 22 - Wind Energy - Efficiency
- Lecture 23 - Wind Energy - Parts and Materials
- Lecture 24 - Wind Energy - Design Considerations
- Lecture 25 - Ocean Thermal Energy - Conversion (OTEC)
- Lecture 26 - Geothermal Energy
- Lecture 27 - Geothermal Energy Technological aspects
- Lecture 28 - Biomass Usage and Issues
- Lecture 29 - Battery Basics

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- Lecture 30 - Battery Testing and Performance
- Lecture 31 - Lithium ion Batteries
- Lecture 32 - Common Battery Structures and Types
- Lecture 33 - Types of Fuel Cells
- Lecture 34 - Fuel Processing for PEM Fuel Cells
- Lecture 35 - Fuel Cells
- Lecture 36 - Characterization of Electrochemical Devices
- Lecture 37 - Fuel Cells
- Lecture 38 - Supercapacitors
- Lecture 39 - Flywheels
- Lecture 40 - Magnetohydrodynamic Power Generation



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

NPTEL Video Course - General - NOC:Introduction to Remote Sensing

Subject Co-ordinator - Dr.Arun K.Saraf

Co-ordinating Institute - IIT - Roorkee

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

Lecture 1 - What is satellite based remote sensing?

Lecture 2 - Development of remote sensing technology and advantages

Lecture 3 - Different platforms of remote sensing.

Lecture 4 - Electromagnetic Spectrum, solar reflection and thermal emission

Lecture 5 - Interaction of EM radiation with atmosphere including atmospheric scattering, absorption and emission

Lecture 6 - Interaction mechanism of EM radiation with ground and spectral response curve

Lecture 7 - Principles of image interpretation

Lecture 8 - Multi-spectral scanners and imaging devices

Lecture 9 - Salient characteristics of Landsat, IRS, Cartosat, Resourcesat sensors

Lecture 10 - Image characteristics and different resolutions in Remote Sensing

Lecture 11 - Image interpretation of different geological landforms, rock types and structures

Lecture 12 - Remote Sensing Integration with GIS and GPS

Lecture 13 - Geo-referencing Technique

Lecture 14 - Basic Image Enhancement Techniques

Lecture 15 - Spatial Filtering, Band ratio and Principal Component Analysis techniques

Lecture 16 - Image Classification Techniques

Lecture 17 - InSAR Techniques in its applications

Lecture 18 - Hyperspectral Remote Sensing

Lecture 19 - Integrated applications of RS and GIS in groundwater studies

Lecture 20 - Limitations of Remote Sensing Techniques

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