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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 - Kaiqi 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 6â oclock 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? (Letâ s qo 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 40 - Basic Kanji

Lecture 40 - Basic Kanji
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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
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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 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 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 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
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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 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 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 Teacherâ 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 - Coorperative 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 â
                                                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 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 Systtem
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
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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

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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 atmosheric scattering, absorbtion and emiss
Lecture 6 - Interaction machanism 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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