

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

NPTEL Video Course - Humanities and Social Sciences - NOC:Exercise and Sports Biomechanics

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Co-ordinating Institute - Visva Bharati University, Santiniketan

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

- Lecture 1 - Introduction to Exercise and Sports Biomechanics
- Lecture 2 - Basics of Biomechanics Research
- Lecture 3 - Fundamental Directions
- Lecture 4 - Fundamental Movements Planes and Axes
- Lecture 5 - Skeletal System Oestokinematics and Arthrokinematics
- Lecture 6 - Joint Movements
- Lecture 7 - Muscular System
- Lecture 8 - Muscle Origin, Insertion and Action
- Lecture 9 - Muscle Origin, Insertion and Action
- Lecture 10 - Muscle Origin, Insertion and Action
- Lecture 11 - Introduction to Kinematics and Kinetics Types of Analysis
- Lecture 12 - Qualitative analysis Software
- Lecture 13 - Dartfish
- Lecture 14 - Dartfish (Continued...)
- Lecture 15 - Dartfish (Continued...)
- Lecture 16 - My Dartfish Express
- Lecture 17 - Measurement issues and Data Collection
- Lecture 18 - Kinovea
- Lecture 19 - Kinovea (Continued...)
- Lecture 20 - OpenCap
- Lecture 21 - Introduction to Linear and Angular Kinematics
- Lecture 22 - Linear Kinematics
- Lecture 23 - Projectile Motion
- Lecture 24 - Angular Kinematics
- Lecture 25 - Application in Sports
- Lecture 26 - Introduction to Kinetics in Exercise and Sports Science
- Lecture 27 - Forces in motion
- Lecture 28 - Dynamics of motion
- Lecture 29 - Fundamentals of Mechanics

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- Lecture 30 - Principles of Rotational Mechanics
- Lecture 31 - Introduction to Lever System
- Lecture 32 - Fluid Mechanics
- Lecture 33 - Timing Gates
- Lecture 34 - Timing Gates
- Lecture 35 - Camera Settings
- Lecture 36 - Accelerometers
- Lecture 37 - Introduction to Optical Imaging Systems
- Lecture 38 - Hardware Setup Marker and Camera Placement
- Lecture 39 - Experiment With Optical Motion Capture System
- Lecture 40 - MOKKA - An Open-Source Software for 3D Analysis
- Lecture 41 - Introduction to the Center of Gravity
- Lecture 42 - Importance of CoG Control Training
- Lecture 43 - Measurement of CoG
- Lecture 44 - Demonstration of CoG Measurement
- Lecture 45 - Goniometry
- Lecture 46 - Introduction to force plate
- Lecture 47 - Measurements in force plates
- Lecture 48 - Practical application of force plates
- Lecture 49 - Practical application of force plates (Continued...)
- Lecture 50 - Interpretation of Force Data
- Lecture 51 - Introduction to force transducers and Isokinetic
- Lecture 52 - Biomechanical parameters in Isokinetic testing
- Lecture 53 - Isokinetic demonstration
- Lecture 54 - Pressure Plate System
- Lecture 55 - Digital Resistance Sprint Device
- Lecture 56 - Introduction to EMG
- Lecture 57 - Practical Application of EMG in Sports
- Lecture 58 - Expert Discussion with Dr. Saju Joseph
- Lecture 59 - Expert Discussion with Dr. Saju Joseph (Continued...)
- Lecture 60 - Expert Discussion with Dr. R.Natarajan