

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

NPTEL Video Course - Biotechnology - NOC:Organ Printing

Subject Co-ordinator - Prof. Falguni Pati

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Introduction to Organ Printing course and Content Discussion
- Lecture 2 - Introduction to 3D Bioprinting
- Lecture 3 - Introduction to Inkjet 3D Bioprinting
- Lecture 4 - Introduction to Inkjet 3D Bioprinting (Continued...)
- Lecture 5 - Introduction to Extrusion Bioprinting
- Lecture 6 - Introduction to Extrusion 3D Bioprinting (Continued...)
- Lecture 7 - Introduction to Laser-assisted Bioprinting
- Lecture 8 - Comparison of Different Bioprinting Techniques - Part 1
- Lecture 9 - Comparison of Different Bioprinting Techniques - Part 2
- Lecture 10 - 3D Bioprinting in Support Bath
- Lecture 11 - Introduction to Bioinks
- Lecture 12 - Important material requirement for Bioink development
- Lecture 13 - Crosslinking of Hydrogels for Bioprinting
- Lecture 14 - Single-Material and Multimaterial Bioink Systems
- Lecture 15 - Printability for Extrusion Bioprinting
- Lecture 16 - What is required and how to print an organ?
- Lecture 17 - Level of complexity in Tissues/Organs for Bioprinting
- Lecture 18 - Design approaches in Bioprinting
- Lecture 19 - Bioprinting of Vasculature
- Lecture 20 - Direct printing of vasculature
- Lecture 21 - Indirect printing of vasculature
- Lecture 22 - Design of Cornea Tissue-Specific Bioink and 3D Bioprinting of Cornea
- Lecture 23 - Design of Cornea Tissue-Specific Bioink and 3D Bioprinting of Cornea (Continued...)
- Lecture 24 - Bioprinting of Heart
- Lecture 25 - Bioprinting of Liver
- Lecture 26 - Bioprinting of Kidney
- Lecture 27 - Bioprinting of Lung
- Lecture 28 - 4D Bioprinting - Part 1
- Lecture 29 - 4D Bioprinting - Part 2

Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

<http://www.digimat.in>

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

- Lecture 30 - 4D Bioprinting - Part 3
- Lecture 31 - In Situ Bioprinting
- Lecture 32 - In Situ Bioprinting (Continued...)
- Lecture 33 - Medical Modeling for Organ Printing
- Lecture 34 - Medical Modeling for Organ Printing (Continued...)
- Lecture 35 - Next Step in Bioprinting
- Lecture 36 - Next Step in Bioprinting (Continued...)
- Lecture 37 - Ethical Issues related to Organ Printing