

**2,341 NPTEL Video Courses Information (Updated as on November 11, 2023)****Total Video Courses: 2,341 | Total Video Lectures: 108,488****Aerospace Engineering (56 Video Courses)**

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|----|-----------|-------------------------------------------------------------------------|
| 1  | 101101001 | Introduction to Aerospace Propulsion                                    |
| 2  | 101101002 | Jet Aircraft Propulsion                                                 |
| 3  | 101101058 | Turbomachinery Aerodynamics                                             |
| 4  | 101104005 | Aero elasticity                                                         |
| 5  | 101104013 | Foundation of Scientific Computing                                      |
| 6  | 101104015 | Instability and Transition of Fluid Flows                               |
| 7  | 101104017 | Introduction to Helicopter Aerodynamics and Dynamics                    |
| 8  | 101104018 | Introduction to Propulsion                                              |
| 9  | 101104019 | Jet and Rocket Propulsion                                               |
| 10 | 101105024 | High Speed Aero Dynamics                                                |
| 11 | 101105030 | Space Flight Mechanics                                                  |
| 12 | 101105059 | Introduction to Aerodynamics                                            |
| 13 | 101106031 | Acoustic Instabilities in Aerospace Propulsion                          |
| 14 | 101106033 | Aerospace Propulsion                                                    |
| 15 | 101106042 | Flight Dynamics II (Stability)                                          |
| 16 | 101106044 | Gas Dynamics                                                            |
| 17 | 101106045 | Introduction to CFD                                                     |
| 18 | 101108047 | Advanced Control System Design for Aerospace Vehicles                   |
| 19 | 101108057 | Optimal Control, Guidance and Estimation                                |
| 20 | 101104061 | NOC:Introduction to Airplane Performance                                |
| 21 | 101104062 | NOC:Stability and Control of Aircraft                                   |
| 22 | 101106037 | Combustion                                                              |
| 23 | 101104064 | NOC:Aircraft Dynamic Stability and Design Stability Augmentation System |

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| 24 | 101104063 | NOC:Engineering Thermodynamics (2016)                         |
| 25 | 101104066 | NOC:Introduction to Experiments in Flight                     |
| 26 | 101104065 | NOC:Introduction to Ancient Indian Technology                 |
| 27 | 101104067 | NOC:Engineering Thermodynamics (2017)                         |
| 28 | 101108068 | NOC:Combustion in Air Breathing Aero Engines                  |
| 29 | 101104069 | NOC:Aircraft Design                                           |
| 30 | 101104071 | NOC:Aircraft Maintenance                                      |
| 31 | 101104070 | NOC:Fundamentals of Combustion - Part I                       |
| 32 | 101104072 | NOC:Fundamentals of Combustion - Part II                      |
| 33 | 101104073 | NOC:Design of Fixed Wing Unmanned Aerial Vehicles             |
| 34 | 101104074 | NOC:Introduction to Finite Volume Methods-I                   |
| 35 | 101104075 | NOC:Advance Aircraft Maintenance                              |
| 36 | 101104076 | NOC:Introduction to Finite Volume Methods-II                  |
| 37 | 101105077 | NOC:Satellite Attitude Dynamics and Control                   |
| 38 | 101101079 | NOC:Introduction to Aerospace Engineering                     |
| 39 | 101104078 | NOC:Introduction to Rocket Propulsion                         |
| 40 | 101105081 | NOC:Vibration and Structural Dynamics                         |
| 41 | 101106082 | NOC:Rocket Propulsion                                         |
| 42 | 101105084 | NOC:Aircraft Structures - I                                   |
| 43 | 101104084 | NOC:Introduction to Airbreathing Propulsion                   |
| 44 | 101101083 | NOC:Introduction to Aircraft Design                           |
| 45 | 101105085 | NOC:Introduction to CFD                                       |
| 46 | 101105083 | NOC:Space Flight Mechanics                                    |
| 47 | 101104083 | NOC:UAV Design - Part II                                      |
| 48 | 101101086 | NOC:Introduction to Launch Vehicle Analysis and Design        |
| 49 | 101101087 | NOC:Lighter than Air Systems                                  |
| 50 | 101104086 | NOC:Computational Science in Engineering                      |
| 51 | 101108086 | NOC:Gasdynamics: Fundamentals and Applications                |
| 52 | 101105088 | NOC:Fundamentals of Theoretical and Experimental Aerodynamics |

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| 53                                      | 101105089 | NOC:Aerodynamic Design of Axial Flow Compressors and Fans   |
| 54                                      | 101102090 | NOC:Elements of Mechanical Vibration                        |
| 55                                      | 101105090 | NOC:Smart Structures                                        |
| 56                                      | 101105091 | NOC:Aeroengine Gas Turbine Cycles                           |
| <b>Biotechnology (87 Video Courses)</b> |           |                                                             |
| 1                                       | 102101003 | Biomathematics                                              |
| 2                                       | 102101007 | Proteomics: Principles and Techniques                       |
| 3                                       | 102102033 | Enzyme Science and Engineering                              |
| 4                                       | 102104042 | Animal Physiology                                           |
| 5                                       | 102104043 | Bio electricity                                             |
| 6                                       | 102106022 | Downstream Processing                                       |
| 7                                       | 102106026 | Thermodynamics                                              |
| 8                                       | 102107028 | Analytical Technologies in Biotechnology                    |
| 9                                       | 102101050 | NOC:Mass spectrometry based proteomics                      |
| 10                                      | 102106048 | NOC:Principles of Downstream techniques in Bioprocess       |
| 11                                      | 102101049 | NOC:Proteins and Gel-Based Proteomics                       |
| 12                                      | 102106051 | NOC:Biostatistics and Design of Experiments                 |
| 13                                      | 102106053 | NOC:Bioreactors                                             |
| 14                                      | 102104052 | NOC:Human Molecular Genetics                                |
| 15                                      | 102101054 | NOC:Interactomics: Protein Arrays and Label-free Biosensors |
| 16                                      | 102106057 | NOC:Medical Biomaterials                                    |
| 17                                      | 102104056 | NOC:Functional Genomics                                     |
| 18                                      | 102101056 | NOC:Introduction to Biostatistics                           |
| 19                                      | 102103056 | NOC:Introduction to Dynamical Models in Biology             |
| 20                                      | 102104057 | NOC:Bioenergy                                               |
| 21                                      | 102107058 | NOC:Biomedical Nanotechnology                               |
| 22                                      | 102101058 | NOC:Introduction to Mechanobiology                          |

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| 23 | 102104058 | NOC:Animal Physiology                                                        |
| 24 | 102104059 | NOC:Cell Culture Technologies                                                |
| 25 | 102104060 | NOC:Forest Biometry                                                          |
| 26 | 102105058 | NOC:Industrial Biotechnology                                                 |
| 27 | 102106066 | NOC:Demystifying the Brain                                                   |
| 28 | 102104061 | NOC:Introduction To Professional and Scientific Communication                |
| 29 | 102104062 | NOC:Bioelectrochemistry                                                      |
| 30 | 102104063 | NOC:Bioenergetics Of Life Processes                                          |
| 31 | 102101067 | NOC:Introductory Mathematical Methods for Biologists                         |
| 32 | 102101055 | NOC:Introduction to Proteomics                                               |
| 33 | 102106065 | NOC:BioInformatics:Algorithms and Applications                               |
| 34 | 102105064 | NOC:Aspects Of Biochemical Engineering                                       |
| 35 | 102101068 | NOC:Bioengineering: An Interface with Biology and Medicine                   |
| 36 | 102104068 | NOC:Wildlife Conservation                                                    |
| 37 | 102104069 | NOC:Nanotechnology in Agriculture                                            |
| 38 | 102105068 | NOC:Biomicrofluidics                                                         |
| 39 | 102106068 | NOC:Computational Systems Biology                                            |
| 40 | 102106069 | NOC:Material and Energy Balances                                             |
| 41 | 102106070 | NOC:Computer Aided Drug Design                                               |
| 42 | 102101072 | NOC:Applications of Interactomics using Genomics and Proteomics Technologies |
| 43 | 102104073 | NOC:Wild Life Ecology                                                        |
| 44 | 102108071 | NOC:Learning about Learning: A Course on Neurobiology of Learning and Memory |
| 45 | 102101076 | NOC:Introduction to Proteogenomics                                           |
| 46 | 102103074 | NOC:Genetic Engineering: Theory and Application                              |
| 47 | 102106080 | NOC:Plant Cell Bioprocessing                                                 |
| 48 | 102106081 | NOC:Tissue Engineering                                                       |
| 49 | 102107075 | NOC:Plant Developmental Biology                                              |
| 50 | 102108077 | NOC:Drug Delivery: Principles and Engineering                                |
| 51 | 102108078 | NOC:Fundamentals of Micro and Nanofabrication                                |

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| 52 | 102104082 | NOC:Forests and their Management                                                                  |
| 53 | 102101082 | NOC:Interactomics: Basics and Applications                                                        |
| 54 | 102108082 | NOC:Optical Spectroscopy and Microscopy: Fundamentals of Optical Measurements and Instrumentation |
| 55 | 102106082 | NOC:Thermodynamics for Biological Systems: Classical and Statistical Aspect                       |
| 56 | 102103083 | NOC:Experimental Biotechnology                                                                    |
| 57 | 102105083 | NOC:Immunology                                                                                    |
| 58 | 102106084 | NOC:Introduction to Developmental Biology                                                         |
| 59 | 102106083 | NOC:Transport Phenomena in Biological Systems                                                     |
| 60 | 102103086 | NOC:Biointerface Engineering                                                                      |
| 61 | 102104086 | NOC:Conservation Economics                                                                        |
| 62 | 102105086 | NOC:Metabolic Engineering                                                                         |
| 63 | 102105087 | NOC:Environmental Chemistry and Microbiology                                                      |
| 64 | 102106086 | NOC:Bioreactor Design and Analysis                                                                |
| 65 | 102106087 | NOC:Biochemistry (IITM)                                                                           |
| 66 | 102107086 | NOC:Structural Biology                                                                            |
| 67 | 102108086 | NOC:Cell Biology: Cellular Organization, Division and Processes                                   |
| 68 | 102104088 | NOC:Conservation Geography                                                                        |
| 69 | 102105088 | NOC:Environmental Biotechnology                                                                   |
| 70 | 102105089 | NOC:Fundamentals of Protein Chemistry                                                             |
| 71 | 102105090 | NOC:Introduction to Biomedical Imaging Systems                                                    |
| 72 | 102101091 | NOC:Maternal Infant Young Child Nutrition                                                         |
| 73 | 102103091 | NOC:Basics of Biology                                                                             |
| 74 | 102103092 | NOC:Data Analysis for Biologists                                                                  |
| 75 | 102103093 | NOC:Genome Editing and Engineering                                                                |
| 76 | 102106093 | NOC:Cellular Biophysics: A Framework for Quantitative Biology                                     |
| 77 | 102106094 | NOC:Medical Image Analysis                                                                        |
| 78 | 102106095 | NOC:Organ Printing                                                                                |
| 79 | 102106096 | NOC:Introduction to Cell Biology                                                                  |

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| 80                                              | 102101097 | NOC:Maternal Infant Young Child Nutrition (Hindi)                           |
| 81                                              | 102103097 | NOC:Enzyme Sciences and Technology                                          |
| 82                                              | 102106097 | NOC:RNA Biology                                                             |
| 83                                              | 102106098 | NOC:Biomechanics                                                            |
| 84                                              | 102104099 | NOC:Neurobiology                                                            |
| 85                                              | 102105099 | NOC:Next Generation Sequencing Technologies: Data Analysis and Applications |
| 86                                              | 102105100 | NOC:Computational Neuroscience                                              |
| 87                                              | 102105101 | NOC:Electrophysiology of Heart                                              |
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| <b>Chemical Engineering (132 Video Courses)</b> |           |                                                                             |
|                                                 |           |                                                                             |
| 1                                               | 103101001 | Advanced Chemical Reaction Engineering (PG)                                 |
| 2                                               | 103101003 | Advanced Process Control                                                    |
| 3                                               | 103101008 | Chemical Reaction Engineering II                                            |
| 4                                               | 103101111 | Advanced Numerical Analysis                                                 |
| 5                                               | 103102012 | Heterogeneous Catalysis and Catalytic Processes                             |
| 6                                               | 103103034 | Mass Transfer Operations I                                                  |
| 7                                               | 103103039 | Process Design Decisions and Project Economics                              |
| 8                                               | 103104044 | Fluid Mechanics                                                             |
| 9                                               | 103104046 | Mass Transfer II                                                            |
| 10                                              | 103104050 | Plantwide Control of Chemical Processes                                     |
| 11                                              | 103105054 | Biochemical Engineering                                                     |
| 12                                              | 103105057 | Microscale Transport Processes                                              |
| 13                                              | 103105059 | Multiphase Flow                                                             |
| 14                                              | 103105061 | Novel Separation Processes                                                  |
| 15                                              | 103105064 | Process Control and Instrumentation                                         |
| 16                                              | 103105066 | Instability and Patterning of Thin Polymer Films                            |
| 17                                              | 103105106 | Advanced Mathematical Techniques in Chemical Engineering                    |
| 18                                              | 103106070 | Chemical Engineering Thermodynamics                                         |

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| 19 | 103106073 | Computational Fluid Dynamics                                                      |
| 20 | 103106074 | Computational Techniques                                                          |
| 21 | 103106103 | Particle Characterization (PG)                                                    |
| 22 | 103106113 | Multiphase flows:Analytical solutions and Stability Analysis                      |
| 23 | 103106114 | NOC:Introduction to Time-Frequency Analysis and Wavelet Transforms                |
| 24 | 103107081 | Chemical Technology - I                                                           |
| 25 | 103107093 | Process Integration                                                               |
| 26 | 103108097 | Chemical Reaction Engineering                                                     |
| 27 | 103108098 | Fundamentals of Transport Processes                                               |
| 28 | 103108099 | Fundamentals of Transport Processes - II                                          |
| 29 | 103108100 | Modern Instrumental Methods of Analysis                                           |
| 30 | 103106112 | Statistics for Experimentalists                                                   |
| 31 | 103106118 | NOC:MATLAB Programming for Numerical Computation                                  |
| 32 | 103106115 | Chemical Engineering Principles of CVD Processes                                  |
| 33 | 103106119 | NOC:Computational Fluid Dynamics                                                  |
| 34 | 103105121 | NOC:Introduction to Process Modeling in Membrane Separation Process               |
| 35 | 103106120 | NOC:Introduction to Statistical Hypothesis Testing                                |
| 36 | 103106116 | Chemical Reaction Engineering 1 (Homogeneous Reactors)                            |
| 37 | 103106117 | Chemical Reaction Engineering 2 (Heterogeneous Reactors)                          |
| 38 | 103105122 | NOC:Soft Nano Technology                                                          |
| 39 | 103105124 | NOC:Adiabatic Two-Phase Flow & Flow Boiling in Microchannel                       |
| 40 | 103107123 | Mechanical Operations                                                             |
| 41 | 103108124 | NOC:Atomic and Molecular Absorption Spectrometry for Pollution Monitoring         |
| 42 | 103106123 | NOC:Applied Time-Series Analysis                                                  |
| 43 | 103107125 | NOC:Waste to Energy Conversion                                                    |
| 44 | 103108123 | NOC:Transport Processes I: Heat and Mass Transfer                                 |
| 45 | 103108127 | NOC:Trace and Ultra-trace Analysis of Metals using Atomic Absorption Spectrometry |
| 46 | 103101127 | NOC:Introduction to Evolutionary Dynamics                                         |
| 47 | 103105127 | NOC:Phase Equilibrium Thermodynamics                                              |

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| 48 | 103105128 | NOC:Transport Phenomena                                                                     |
| 49 | 103107127 | NOC:Unit Operations of Particulate Matter                                                   |
| 50 | 103106131 | NOC:Rheology of Complex Materials                                                           |
| 51 | 103103135 | NOC:Measurement Technique in Multiphase Flows                                               |
| 52 | 103103133 | NOC:An Introduction to Cardiovascular Fluid Mechanics                                       |
| 53 | 103108138 | NOC:Inductive Couple Plasma Atomic Emission Spectrometry (ICP-AES) for Pollution Monitoring |
| 54 | 103103134 | NOC:Multiphase Microfluidics                                                                |
| 55 | 103104129 | NOC:Thermodynamics Of Fluid Phase Equilibria                                                |
| 56 | 103101137 | NOC:Heat Transfer                                                                           |
| 57 | 103103132 | NOC:Fluidization Engineering                                                                |
| 58 | 103105130 | NOC:Chemical Process Instrumentation                                                        |
| 59 | 103103136 | NOC:Multiphase Flows                                                                        |
| 60 | 103103139 | NOC:Introduction to Polymer Physics (IIT-G)                                                 |
| 61 | 103103140 | NOC:Natural Gas Engineering                                                                 |
| 62 | 103105139 | NOC:Optimization in Chemical Engineering                                                    |
| 63 | 103105140 | NOC:Heat Transfer (2018)                                                                    |
| 64 | 103107139 | NOC:Introduction to Polymer Physics (IIT-R)                                                 |
| 65 | 103108139 | NOC:Infrared Spectroscopy for Pollution Monitoring                                          |
| 66 | 103101141 | NOC:Chemical Reaction Engineering-II                                                        |
| 67 | 103101142 | NOC:Chemical Process Control                                                                |
| 68 | 103103144 | NOC:Chemical Engineering Thermodynamics                                                     |
| 69 | 103103145 | NOC:Mass Transfer Operations-I                                                              |
| 70 | 103103146 | NOC:Transport Phenomena of Non-Newtonian Fluids                                             |
| 71 | 103103147 | NOC:Fluid Flow Operations                                                                   |
| 72 | 103106148 | NOC:Process Control - Design, Analysis and Assessment                                       |
| 73 | 103107143 | NOC:Equipment Design: Mechanical Aspects                                                    |
| 74 | 103106149 | System Identification                                                                       |
| 75 | 103103152 | NOC:Chemical Process Intensification                                                        |
| 76 | 103103153 | NOC:Chemical Reaction Engineering - I                                                       |

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| 77  | 103103154 | NOC:Mass Transfer Operations II                                          |
| 78  | 103103155 | NOC:Mechanical Unit Operations                                           |
| 79  | 103104151 | NOC:Chemical Engineering Thermodynamics                                  |
| 80  | 103105160 | NOC:Flow through Porous Media                                            |
| 81  | 103105161 | NOC:Fundamentals of Particle and Fluid Solid Processing                  |
| 82  | 103106158 | NOC:Fluid and Particle Mechanics                                         |
| 83  | 103106159 | NOC:Continuum Mechanics and Transport Phenomena                          |
| 84  | 103107156 | NOC:Chemical Process Safety                                              |
| 85  | 103107157 | NOC:Technologies For Clean And Renewable Energy Production               |
| 86  | 103102016 | Interfacial Engineering                                                  |
| 87  | 103103162 | NOC:Advanced Thermodynamics                                              |
| 88  | 103103165 | NOC:Basic Principles and Calculations in Chemical Engineering            |
| 89  | 103103164 | NOC:Computer Aided Applied Single Objective Optimization                 |
| 90  | 103108162 | NOC:Electrochemical Technology in Pollution Control                      |
| 91  | 103106162 | NOC:Environmental Quality Monitoring and Analysis                        |
| 92  | 103103163 | NOC:Membrane Technology                                                  |
| 93  | 105106204 | NOC:Colloids and Surfaces                                                |
| 94  | 103105166 | NOC:Plant Design and Economics                                           |
| 95  | 105106205 | NOC:Polymers: Concepts, Properties, Uses and Sustainability              |
| 96  | 103103206 | NOC:Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems |
| 97  | 103103207 | NOC:Biomass Conversion and Biorefinery                                   |
| 98  | 103107206 | NOC:Polymer Reaction Engineering                                         |
| 99  | 103107207 | NOC:Process Equipment Design                                             |
| 100 | 103107208 | NOC:Advanced Thermodynamics and Molecular Simulations                    |
| 101 | 103101209 | NOC:Introduction to Interfacial Waves                                    |
| 102 | 103103209 | NOC:Aspen Plus® Simulation Software-A basic course for beginners         |
| 103 | 103105209 | NOC:Material and Energy Balance Computations                             |
| 104 | 103105210 | NOC:Principles and Practices of Process Equipment and Plant Design       |
| 105 | 103102211 | NOC:Fluid Mechanics and its Applications                                 |

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| 106 | 103103211 | NOC:Physical and Electrochemical Characterizations in Chemical Engineering                                               |
| 107 | 103107211 | NOC:Chemical Process Utilities                                                                                           |
| 108 | 103107212 | NOC:Physico-Chemical Processes for Waste Water Treatment                                                                 |
| 109 | 103103031 | Heat Transfer                                                                                                            |
| 110 | 103101215 | NOC:Hydrogen Energy:Production,Storage,Transportation and Safety                                                         |
| 111 | 103105215 | NOC:Mathematical Modelling and Simulation of Chemical Engineering Process                                                |
| 112 | 103105216 | NOC:Advanced Process Dynamics                                                                                            |
| 113 | 103106214 | Synthetic and Natural Supramolecular Architectures: An Approach Towards Molecular Technology                             |
| 114 | 103107215 | NOC:Basic Environmental Engineering and Pollution Abatement                                                              |
| 115 | 103103217 | NOC:Chemical Process Technology                                                                                          |
| 116 | 103103218 | NOC:Inorganic Chemical Technology                                                                                        |
| 117 | 103105217 | NOC:Metallocene and Metal-Carbene based Organometallic Compounds as Industrially Important Advanced Polyolefin Catalysts |
| 118 | 103105218 | NOC:Chemical Engineering Fluid Dynamics and Heat Transfer                                                                |
| 119 | 103105219 | NOC:Characterization of Polymers, Elastomers and Composites                                                              |
| 120 | 103107217 | NOC:Biological Process Design for Wastewater Treatment                                                                   |
| 121 | 103103220 | NOC:Organic Chemical Technology                                                                                          |
| 122 | 103103221 | NOC:Solid-Fluid Operations                                                                                               |
| 123 | 103103222 | NOC:Energy Conversion Technologies (Biomass and Coal)                                                                    |
| 124 | 103103223 | NOC:Petroleum Reservoir Engineering                                                                                      |
| 125 | 103105220 | NOC:Matlab-Based Programming Lab in Chemical Engineering                                                                 |
| 126 | 103105221 | NOC:Petroleum Technology                                                                                                 |
| 127 | 103105222 | NOC:Rheology and Processing of Paints, Plastic and Elastomer Based Composites                                            |
| 128 | 103105223 | NOC:Petroleum Formation Evaluation                                                                                       |
| 129 | 103106220 | NOC:Artificial Lift                                                                                                      |
| 130 | 103107220 | NOC:Advanced Reaction Engineering                                                                                        |
| 131 | 103107221 | NOC:Polymer Process Engineering                                                                                          |
| 132 | 103108220 | NOC:Transport Processes                                                                                                  |
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### Chemistry and Biochemistry (102 Video Courses)

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| 1  | 104104011 | Chemistry of Materials                                                        |
| 2  | 104104026 | Mathematics for Chemistry                                                     |
| 3  | 104104066 | Advance Analytical Course                                                     |
| 4  | 104105031 | Bio-inorganic chemistry                                                       |
| 5  | 104105033 | Co-ordination chemistry (chemistry of transition elements)                    |
| 6  | 104105034 | Heterocyclic Chemistry                                                        |
| 7  | 104105038 | Organic photochemistry and pericyclic reactions                               |
| 8  | 104105039 | Polymer Chemistry                                                             |
| 9  | 104105041 | Rate processes                                                                |
| 10 | 104106048 | Principles and Applications of Electron Paramagnetic Resonance Spectroscopy   |
| 11 | 104108055 | Essentials in Immunolgy                                                       |
| 12 | 104108056 | Eukaryotic Gene Expression - basics and benefits                              |
| 13 | 104108057 | Introductory Quantum Chemistry                                                |
| 14 | 104108062 | Introduction to Organometallic Chemistry                                      |
| 15 | 104106072 | NOC:Chemistry - I                                                             |
| 16 | 102105034 | Bio-Chemistry I                                                               |
| 17 | 104105076 | NOC:Biochemistry                                                              |
| 18 | 104106075 | NOC:Application of Spectroscopic Methods in Molecular Structure Determination |
| 19 | 104106074 | NOC:Chemistry-II                                                              |
| 20 | 104108078 | NOC:Principles and Applications of NMR Spectroscopy                           |
| 21 | 104106077 | NOC:Pericyclic Reactions and Organic Photochemistry                           |
| 22 | 104101079 | NOC:Organo Metallic Chemistry                                                 |
| 23 | 104104080 | NOC:Chemical Applications of Symmetry and Group Theory                        |
| 24 | 104106083 | NOC:Chemistry I:Introduction To Quantum Chemistry and Molecular Spectroscopy  |
| 25 | 104104082 | NOC:Quantum Computing                                                         |
| 26 | 104104081 | NOC:Mathematics for Chemistry                                                 |
| 27 | 104104084 | NOC:Basics of Fluroscence Spectroscopy                                        |

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| 28 | 104104085 | NOC:Laser: Fundamentals and Applications                                     |
| 29 | 104101084 | NOC:Chemical and Biological Thermodynamics: Principles to Applications       |
| 30 | 104105084 | NOC:Analytical Chemistry                                                     |
| 31 | 104105086 | NOC:Stereochemistry                                                          |
| 32 | 104104086 | NOC:Advanced Mathematical Methods for Chemistry                              |
| 33 | 104101092 | NOC:Metal Mediated Synthesis - I                                             |
| 34 | 104105088 | NOC:Introduction to Molecular Thermodynamics                                 |
| 35 | 104101090 | NOC:Chemistry of Main Group Elements                                         |
| 36 | 104101091 | NOC:Transition Metal Organometallic Chemistry: Principles to Applications    |
| 37 | 104105087 | NOC:A Study Guide In Organic Retrosynthesis: Problem Solving Approach        |
| 38 | 104106089 | NOC:Introduction to Chemical Thermodynamics and Kinetics                     |
| 39 | 104101093 | NOC:Inorganic Chemistry of Life: Principles and Perspectives                 |
| 40 | 104101094 | NOC:Symmetry and Group Theory                                                |
| 41 | 104101095 | NOC:Computational Chemistry and Classical Molecular Dynamics                 |
| 42 | 104105093 | NOC:Molecules in Motion                                                      |
| 43 | 104106093 | NOC:Chemical Crystallography                                                 |
| 44 | 104106094 | NOC:Advanced Chemical Thermodynamics and Kinetics                            |
| 45 | 104106096 | NOC:Chemistry: Atomic Structure and Chemical Bonding                         |
| 46 | 104101099 | NOC:Molecular Spectroscopy: A Physical Chemists Perspective                  |
| 47 | 104101100 | NOC:Advanced Transition Metal Organometallic Chemistry                       |
| 48 | 104104101 | NOC:Solid State Chemistry                                                    |
| 49 | 104105102 | NOC:Experimental Biochemistry                                                |
| 50 | 104105103 | NOC:Industrial Inorganic Chemistry                                           |
| 51 | 104105104 | NOC:Reactive Intermediates Carbene and Nitrene                               |
| 52 | 104106105 | NOC:Electrochemical Impedance Spectroscopy                                   |
| 53 | 104106106 | NOC:Medicinal Chemistry                                                      |
| 54 | 104106107 | NOC:Chemical Principles-II                                                   |
| 55 | 104108097 | NOC:Multidimensional NMR Spectroscopy for Structural Studies of Biomolecules |
| 56 | 104108098 | NOC:Symmetry and Structure in the Solid State                                |

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| 57 | 104106108 | Organic Chemistry Lab Certification                                                             |
| 58 | 104101115 | NOC:Mechanisms in Organic Chemistry                                                             |
| 59 | 104101116 | NOC:Metals In Biology                                                                           |
| 60 | 104101117 | NOC:NMR spectroscopy for Chemists and Biologists                                                |
| 61 | 104102113 | NOC:Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries                |
| 62 | 104102114 | NOC:Introductory Non-Linear Dynamics                                                            |
| 63 | 104103110 | NOC:Principles Of Organic Synthesis                                                             |
| 64 | 104103111 | NOC:Reagents In Organic Synthesis                                                               |
| 65 | 104103112 | NOC:Thermodynamics: Classical to Statistical                                                    |
| 66 | 104104109 | NOC:Bioinorganic Chemistry                                                                      |
| 67 | 104105120 | NOC:Organic Chemistry in Biology and Drug Development                                           |
| 68 | 104106119 | NOC:Introductory Organic Chemistry I                                                            |
| 69 | 104108118 | NOC:Ultrafast Optics and Spectroscopy                                                           |
| 70 | 104102009 | Bio-Physical Chemistry                                                                          |
| 71 | 104101121 | NOC:Basics in Inorganic Chemistry                                                               |
| 72 | 104103121 | NOC:Essentials of Biomolecules: Nucleic Acids and Peptides                                      |
| 73 | 104106122 | NOC:Fundamentals of Spectroscopy                                                                |
| 74 | 104106121 | NOC:Quantitative Methods in Chemistry                                                           |
| 75 | 104101123 | NOC:Transition Metal Organometallics in Catalysis and Biology                                   |
| 76 | 104101122 | NOC:Ultrafast Laser Spectroscopy                                                                |
| 77 | 104101125 | NOC:Basic Statistical Mechanics                                                                 |
| 78 | 104105124 | NOC:Introduction to Polymer Science                                                             |
| 79 | 104108124 | NOC:One and Two Dimensional NMR Spectroscopy for Chemists                                       |
| 80 | 104101124 | NOC:Quantum Chemistry of Atoms and Molecules                                                    |
| 81 | 104101126 | NOC:Quantum Mechanics and Molecular Spectroscopy                                                |
| 82 | 104101127 | NOC:Essentials of Oxidation, Reduction and C-C Bond Formation. Application in Organic Synthesis |
| 83 | 104101128 | NOC:Chemical Kinetics and Transition State Theory                                               |

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| 84  | 104105127 | NOC:Structure, Stereochemistry and Reactivity of Organic Compounds and Intermediates: A Problem Solving Approach |
| 85  | 104105128 | NOC:Approximate Methods in Quantum Chemistry                                                                     |
| 86  | 104106127 | NOC:Symmetry, Stereochemistry and Applications                                                                   |
| 87  | 104106128 | NOC:Symmetry and Group Theory (2021)                                                                             |
| 88  | 104101130 | NOC:Concepts of Chemistry for Engineering                                                                        |
| 89  | 104104130 | NOC:Chemistry and Physics of Surfaces and Interfaces                                                             |
| 90  | 104105130 | NOC:Biological Inorganic Chemistry                                                                               |
| 91  | 104106131 | NOC:Introductory Organic Chemistry - II                                                                          |
| 92  | 104108132 | NOC:Time Dependent Quantum Chemistry                                                                             |
| 93  | 104101133 | NOC:Classics in Total Synthesis-I                                                                                |
| 94  | 104101134 | NOC:Circular Dichroism and Mossbauer Spectroscopy for Chemists                                                   |
| 95  | 104101135 | NOC:NMR Spectroscopy for Structural Biology                                                                      |
| 96  | 104101136 | NOC:Transition Metal Chemistry                                                                                   |
| 97  | 104105133 | NOC:Principles and Applications of Enolate Alkylation                                                            |
| 98  | 104101137 | NOC:Nuclear and Radiochemistry                                                                                   |
| 99  | 104106137 | NOC:Elementary Electrochemistry                                                                                  |
| 100 | 104106138 | NOC:Organic Chemistry-I (Tamil)                                                                                  |
| 101 | 104101139 | NOC:Fundamentals of Statistical Thermodynamics                                                                   |
| 102 | 104105139 | NOC:Overview and Integration of Cellular Metabolism                                                              |

### Civil Engineering (190 Video Courses)

|   |           |                        |
|---|-----------|------------------------|
| 1 | 105101005 | Soil Dynamics          |
| 2 | 105101006 | Structural Dynamics    |
| 3 | 105101010 | Watershed Management   |
| 4 | 105101082 | Fluid Mechanics        |
| 5 | 105101084 | Soil Mechanics         |
| 6 | 105101086 | Structural Analysis II |

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|----|-----------|---------------------------------------------------|
| 7  | 105101134 | Geotechnical Earthquake Engineering               |
| 8  | 105101143 | Geosynthetics Engineering: In Theory and Practice |
| 9  | 105102012 | Concrete Technology                               |
| 10 | 105102016 | Seismic Analysis of Structures                    |
| 11 | 105102088 | Building Materials and Construction               |
| 12 | 105103021 | Advanced Hydraulics                               |
| 13 | 105103094 | Design of Steel Structures                        |
| 14 | 105103096 | Hydraulics                                        |
| 15 | 105104029 | Advanced Hydrology                                |
| 16 | 105104030 | Concrete Engineering and Technology               |
| 17 | 105104099 | Environmental Air Pollution                       |
| 18 | 105104101 | Surveying                                         |
| 19 | 105104103 | Water Resources Engineering                       |
| 20 | 105104131 | Geotechnical Measurements and Explorations        |
| 21 | 105104135 | Application of Soil Mechanics                     |
| 22 | 105105039 | Advanced Foundation Engineering                   |
| 23 | 105105043 | Numerical Methods in Civil Engineering            |
| 24 | 105105045 | Probability Methods in Civil Engineering          |
| 25 | 105105105 | Design of Reinforced Concrete Structures          |
| 26 | 105105106 | Engineering Geology                               |
| 27 | 105105107 | Introduction to Transportation Engineering        |
| 28 | 105105108 | Strength of Materials                             |
| 29 | 105106050 | Advanced Structural Analysis                      |
| 30 | 105106051 | Finite Element Analysis                           |
| 31 | 105106052 | Geosynthetics and Reinforced Soil Structures      |
| 32 | 105106053 | Modern Construction Materials                     |
| 33 | 105106058 | Urban Transportation Planning                     |
| 34 | 105106116 | Mechanics of solids                               |
| 35 | 105106118 | Pre-stressed Concrete Structures                  |

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| 36 | 105106119 | Water and Waste Water Engineering                              |
| 37 | 105107120 | Foundation Engineering                                         |
| 38 | 105107121 | Modern Surveying Techniques                                    |
| 39 | 105107123 | Transportation Engineering II                                  |
| 40 | 105108075 | Ground Improvement Techniques                                  |
| 41 | 105108079 | Stochastic Hydrology                                           |
| 42 | 105108080 | Stochastic Structural Dynamics                                 |
| 43 | 105108130 | Water Resources Systems : Modeling Techniques and Analysis     |
| 44 | 105105042 | Ground Water Hydrology                                         |
| 45 | 105101001 | Advanced Geotechnical Engineering                              |
| 46 | 105106145 | NOC:Sustainable River Basin Management                         |
| 47 | 105106149 | NOC:Project Planning and Control                               |
| 48 | 105105150 | NOC:Probability Methods in Civil Engineering                   |
| 49 | 105104147 | NOC:Geology and Soil Mechanics                                 |
| 50 | 105104148 | NOC:Engineering Graphics                                       |
| 51 | 105106151 | NOC:Structural Dynamics                                        |
| 52 | 105104152 | NOC:Earth Sciences for Civil Engineering                       |
| 53 | 105108141 | Finite Element method for vibration and Stability analyses     |
| 54 | 105107155 | NOC:Introduction to Geographic Information Systems             |
| 55 | 105107156 | NOC:Principles and Applications of Building Science            |
| 56 | 105107157 | NOC:GPS Surveying                                              |
| 57 | 105105156 | NOC:Visual Semiotics for Visual Communication                  |
| 58 | 105104156 | NOC:Earth Sciences for Civil Engineering - Part 2              |
| 59 | 105102159 | Water Management                                               |
| 60 | 105107158 | NOC:Digital Land Surveying And Mapping                         |
| 61 | 105105157 | NOC:Life Cycle Assessment                                      |
| 62 | 105104157 | NOC:Hydration, Porosity and Strength of Cementitious Materials |
| 63 | 105101160 | NOC:Geotechnical Engineering Laboratory                        |
| 64 | 105104160 | NOC:Mechanics of Solids                                        |

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| 65 | 105104161 | NOC:Principles of Construction Management                                                                     |
| 66 | 105104162 | NOC:Foundation Design                                                                                         |
| 67 | 105105160 | NOC:Integrated Waste Management for a Smart City                                                              |
| 68 | 105105161 | NOC:Computational Hydraulics                                                                                  |
| 69 | 105105162 | NOC:Design of Steel Structures                                                                                |
| 70 | 105105165 | NOC:Reinforced Concrete Road Bridges                                                                          |
| 71 | 105105166 | NOC:Structural Analysis - I                                                                                   |
| 72 | 105107160 | NOC:Digital Image Processing of Remote Sensing Data                                                           |
| 73 | 105102160 | NOC:Geoenvironmental Engineering (Environmental Geotechnology) Landfills, Slurry Ponds and Contaminated Sites |
| 74 | 105105169 | NOC:Electronic Waste Management: Issues And Challenges                                                        |
| 75 | 105107174 | NOC:Digital Elevation Models and Applications                                                                 |
| 76 | 105104167 | NOC:Photogeology In Terrain Evaluation                                                                        |
| 77 | 105102175 | NOC:Energy Efficiency, Acoustics and Daylighting in Building                                                  |
| 78 | 105106172 | NOC:Mechanics of Materials                                                                                    |
| 79 | 105107173 | NOC:Applied Environmental Microbiology                                                                        |
| 80 | 105105168 | NOC:Soil Mechanics, Geotechnical Engineering-I                                                                |
| 81 | 105105170 | NOC:Mineral Resources: Geology, Exploration, Economics and Environment                                        |
| 82 | 105105171 | NOC:Introduction to Mineral Processing                                                                        |
| 83 | 105101176 | NOC:Geosynthetics Testing Laboratory                                                                          |
| 84 | 105102176 | NOC:Fire Protection, Services and Maintenance Management of Building                                          |
| 85 | 105103176 | NOC:Higher Surveying                                                                                          |
| 86 | 105103177 | NOC:Unsaturated Soil Mechanics                                                                                |
| 87 | 105104177 | NOC:Photogeology In Terrain Evaluation - Part 2                                                               |
| 88 | 105104178 | NOC:Introduction to Accounting and Finance for Civil Engineers                                                |
| 89 | 105105176 | NOC:Foundation Engineering                                                                                    |
| 90 | 105105177 | NOC:Theory of Elasticity                                                                                      |
| 91 | 105105178 | NOC:Wastewater Treatment and Recycling                                                                        |
| 92 | 105105179 | NOC:Fluid Inclusion in Mineral Principles, Methodology, Practice and Application                              |

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| 93  | 105105180 | NOC:Matrix Method of Structural Analysis                       |
| 94  | 105106176 | NOC:Advanced Concrete Technology                               |
| 95  | 105106177 | NOC:Glass in buildings: Design and Application                 |
| 96  | 105106178 | NOC:Glass Processing Technology                                |
| 97  | 105107176 | NOC:Environmental Engineering-Chemical Processes               |
| 98  | 105103182 | NOC:Subsurface Exploration: Importance and Techniques Involved |
| 99  | 105104183 | NOC:Natural Hazards - Part 1                                   |
| 100 | 105105184 | NOC:Plastic Waste Management                                   |
| 101 | 105105185 | NOC:Geotechnical Engineering-II Foundation Engineering         |
| 102 | 105105186 | NOC:Mass, Momentum and Energy Balances in Engineering Analysis |
| 103 | 105106187 | NOC:Advanced Topics in the Science and Technology of Concrete  |
| 104 | 105106188 | NOC:Infrastructure Planning and Managements                    |
| 105 | 105107181 | NOC:Environmental Remediation of Contaminated Sites            |
| 106 | 105101196 | NOC:Environmental Geotechnics                                  |
| 107 | 105102195 | NOC:Sustainable Materials and Green Buildings                  |
| 108 | 105102199 | NOC:Scheduling Techniques in Projects                          |
| 109 | 105103192 | NOC:Fluid Mechanics                                            |
| 110 | 105103193 | NOC:Remote Sensing and GIS                                     |
| 111 | 105104189 | NOC:Structural Dynamics for Civil Engineers - SDOF systems     |
| 112 | 105104190 | NOC:Geomorphic Processes: Landforms and Landscapes             |
| 113 | 105104191 | NOC:Structural Geology                                         |
| 114 | 105106197 | NOC:Design of Masonry Structures                               |
| 115 | 105107194 | NOC:Global Navigation Satellite Systems And Applications       |
| 116 | 105106200 | NOC:Characterization of Construction Materials                 |
| 117 | 105104200 | NOC:Earthquake Geology: A tool for Seismic Hazard Assessment   |
| 118 | 105101200 | NOC:Environmental Geomechanics                                 |
| 119 | 105107200 | NOC:Geomorphology                                              |
| 120 | 105105202 | NOC:Geo Spatial Analysis in Urban Planning                     |
| 121 | 105101201 | NOC:Geotechnical Engineering - 1                               |

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| 122 | 105105203 | NOC:Hydraulic Engineering                                      |
| 123 | 105106201 | NOC:Introduction to Civil Engineering Profession               |
| 124 | 105106202 | NOC:Maintenance and Repair of Concrete Structures              |
| 125 | 105106203 | NOC:Mechanical Characterization of Bituminous Materials        |
| 126 | 105107201 | NOC:Remote Sensing Essentials                                  |
| 127 | 105105200 | NOC:Soil Structure Interaction                                 |
| 128 | 105105201 | NOC:Water Supply Engineering                                   |
| 129 | 105107204 | NOC:Earthquake Resistant Design of Foundations                 |
| 130 | 105108204 | NOC:Introduction to Engineering Seismology                     |
| 131 | 105105204 | NOC:Introduction to Multimodal Urban Transportation Systems    |
| 132 | 105103205 | NOC:Municipal Solid Waste Management                           |
| 133 | 105103204 | NOC:River Engineering                                          |
| 134 | 105101206 | NOC:Remote Sensing: Principles and Applications                |
| 135 | 105102206 | NOC:Safety in Construction                                     |
| 136 | 105103206 | NOC:Construction Methods and Equipment Management              |
| 137 | 105103207 | NOC:Advanced Soil Mechanics                                    |
| 138 | 105104206 | NOC:Development and Applications of Special Concretes          |
| 139 | 105105207 | NOC:Advanced Foundation Engineering                            |
| 140 | 105105208 | NOC:Urban Transport Systems Planning                           |
| 141 | 105106206 | NOC:Basic Construction Materials                               |
| 142 | 105107206 | NOC:Geographic Information Systems                             |
| 143 | 105107207 | NOC:Water and Waste Water Treatment                            |
| 144 | 105107208 | NOC:Rock Engineering                                           |
| 145 | 105101209 | NOC:Dynamics of Structures                                     |
| 146 | 105103209 | NOC:Plates and Shells                                          |
| 147 | 105103210 | NOC:Optimization methods for Civil engineering                 |
| 148 | 105105209 | NOC:Structural Reliability                                     |
| 149 | 105105210 | NOC:Ground Improvement                                         |
| 150 | 105105211 | NOC:Remote Sensing of Leaf Area Index and Primary Productivity |

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| 151 | 105105212 | NOC:Rock Mechanics and Tunneling                                |
| 152 | 105107209 | NOC:Finite Element Method and Computational Structural Dynamics |
| 153 | 105107210 | NOC:Sustainable Transportation Systems                          |
| 154 | 105101213 | NOC:Microwave Remote Sensing in Hydrology                       |
| 155 | 105101214 | NOC:Groundwater Hydrology and Management                        |
| 156 | 105101215 | NOC:Rural Water Resources Management                            |
| 157 | 105103213 | NOC:Engineering Hydrology                                       |
| 158 | 105103214 | NOC:Expansive Soil                                              |
| 159 | 105105213 | NOC:Retrofitting and Rehabilitation of Civil Infrastructure     |
| 160 | 105105214 | NOC:Surface Water Hydrology                                     |
| 161 | 105105215 | NOC:Traffic Engineering                                         |
| 162 | 105106213 | NOC:Introduction to Lean Construction                           |
| 163 | 105107213 | NOC:Air Pollution and Control                                   |
| 164 | 105101216 | NOC:Geotechnical Engineering-II                                 |
| 165 | 105104216 | NOC:Introductory Field Structural Geology                       |
| 166 | 105105216 | NOC:Bridge Engineering                                          |
| 167 | 105105217 | NOC:Elastic Stability of Structures                             |
| 168 | 105105218 | NOC:Radiogenic Isotope Geology                                  |
| 169 | 105105219 | NOC:Availability and Management of Groundwater Resources        |
| 170 | 105106216 | NOC:Design of Connections in Steel Structures                   |
| 171 | 105107216 | NOC:Underground Space Technology                                |
| 172 | 105107217 | NOC:Environmental Modeling and Simulation                       |
| 173 | 105107218 | NOC:Advanced Geomatics Engineering                              |
| 174 | 105107219 | NOC:Pavement Materials (Under Pavement Engineering)             |
| 175 | 105107220 | NOC:Geometric Design of Highways                                |
| 176 | 105101221 | NOC:Remote Sensing and GIS for Rural Development                |
| 177 | 105103221 | NOC:Vibration of Continuous Systems                             |
| 178 | 105105221 | NOC:Soil Dynamics                                               |
| 179 | 105106221 | NOC:Analysis and Design of Bituminous Pavements                 |

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| 180                                                         | 105106222 | NOC:FEM and Constitutive Modelling in Geomechanics    |
| 181                                                         | 105106223 | NOC:The Evolution of the Earth and life               |
| 182                                                         | 105103224 | NOC:Reliability-Based Structural Design               |
| 183                                                         | 105104224 | NOC:Earth Sciences for Civil Engineering (Hindi)      |
| 184                                                         | 105105224 | NOC:Geotechnical Earthquake Engineering               |
| 185                                                         | 105105225 | NOC:Earthquake Seismology                             |
| 186                                                         | 105105226 | NOC:Engineering Geology                               |
| 187                                                         | 105106224 | NOC:Advanced Reinforced Concrete Design               |
| 188                                                         | 105106225 | NOC:Admixtures and Special Concretes                  |
| 189                                                         | 105107224 | NOC:Plate Tectonics                                   |
| 190                                                         | 105107225 | NOC:Earthquake Geotechnical Engineering               |
| <b>Computer Science and Engineering (211 Video Courses)</b> |           |                                                       |
| 1                                                           | 106101007 | Natural Language Processing                           |
| 2                                                           | 106101060 | Design and Analysis of Algorithms                     |
| 3                                                           | 106101061 | Software Engineering                                  |
| 4                                                           | 106102011 | Computational Geometry                                |
| 5                                                           | 106102013 | Logic for CS                                          |
| 6                                                           | 106102062 | Computer Architecture (Prof. Anshul Kumar)            |
| 7                                                           | 106102064 | Data Structures And Algorithms                        |
| 8                                                           | 106102065 | Introduction to Computer Graphics                     |
| 9                                                           | 106102067 | Principles of Programming Languages                   |
| 10                                                          | 106102114 | Parallel Computing                                    |
| 11                                                          | 106103116 | Design Verification and Test of Digital VLSI Circuits |
| 12                                                          | 106104019 | Computer Algorithms - 2                               |
| 13                                                          | 106104028 | Theory of Computation                                 |
| 14                                                          | 106104074 | Introduction to Problem Solving and Programming       |
| 15                                                          | 106104118 | Riemann Hypothesis and its Applications               |

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| 16 | 106104119 | Biometrics                                                   |
| 17 | 106104120 | Parallel Algorithm                                           |
| 18 | 106104122 | Computer Architecture (Dr. Mainak Chaudhuri)                 |
| 19 | 106104123 | Compiler Design (Prof. Sanjeev K Aggarwal)                   |
| 20 | 106104128 | NOC:Introduction to Programming in C                         |
| 21 | 106105031 | Cryptography and Network Security                            |
| 22 | 106105033 | High Performance Computer Architecture                       |
| 23 | 106105034 | Low Power VLSI Circuits and Systems                          |
| 24 | 106105036 | Real Time Systems                                            |
| 25 | 106105077 | Artificial Intelligence (Prof. S. Sarkar, Prof. Anupam Basu) |
| 26 | 106105079 | Artificial Intelligence (Prof.P. Dasgupta)                   |
| 27 | 106105081 | Computer Networks                                            |
| 28 | 106105082 | Data Communication                                           |
| 29 | 106105083 | Electronic Design Automation                                 |
| 30 | 106105084 | Internet Technology                                          |
| 31 | 106105085 | Programming and Data Structure                               |
| 32 | 106106046 | Pattern Recognition                                          |
| 33 | 106106048 | Performance Evaluation of Computer Systems                   |
| 34 | 106106049 | Theory of Automata, Formal Languages and Computation         |
| 35 | 106106090 | Computer Graphics                                            |
| 36 | 106106092 | Computer Organization                                        |
| 37 | 106106093 | Database Design                                              |
| 38 | 106106094 | Discrete Mathematical Structures                             |
| 39 | 106106126 | Artificial Intelligence (Prof. Deepak Khemani)               |
| 40 | 106106127 | NOC:Programming, Data Structures and Algorithms              |
| 41 | 106106129 | NOC:Introduction to Information Security I                   |
| 42 | 106106130 | NOC:Programming and Data structures (PDS)                    |
| 43 | 106106131 | NOC:Design and Analysis of Algorithms                        |
| 44 | 106106133 | NOC:Programming, Data Structures and Algorithms (Aricent)    |

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| 45 | 106108051 | Combinatorics                                                     |
| 46 | 106108052 | Compiler Design (Prof. Y.N. Srikanth)                             |
| 47 | 106108054 | Graph Theory                                                      |
| 48 | 106108055 | High Performance Computing                                        |
| 49 | 106108056 | Numerical Optimization                                            |
| 50 | 106108058 | Storage Systems                                                   |
| 51 | 106108102 | System Analysis and Design                                        |
| 52 | 106108113 | Principles of Compiler Design                                     |
| 53 | 106106134 | NOC:Computer Architecture                                         |
| 54 | 106106136 | NOC:Model Checking                                                |
| 55 | 106106137 | NOC:Functional Programming in Haskell                             |
| 56 | 106104135 | NOC:Fundamentals of Database Systems                              |
| 57 | 106106141 | NOC:Information Security - II                                     |
| 58 | 106106139 | NOC:Introduction to Machine Learning (Sponsored by Arihant)       |
| 59 | 106106140 | NOC:Artificial Intelligence: Knowledge Representation & Reasoning |
| 60 | 106106138 | Virtual Reality                                                   |
| 61 | 106106142 | NOC:Algorithms for Big Data                                       |
| 62 | 106105154 | NOC:Complex Network : Theory and Application                      |
| 63 | 106105153 | NOC:Object-Oriented Analysis and Design                           |
| 64 | 106105152 | NOC:Introduction to Machine Learning                              |
| 65 | 106105151 | NOC:Programming in C++                                            |
| 66 | 106105150 | NOC:Software Testing                                              |
| 67 | 106104148 | NOC:Theory of Computation                                         |
| 68 | 106107155 | NOC:Introduction to Cryptology                                    |
| 69 | 106104149 | NOC:Modern Algebra                                                |
| 70 | 106106146 | NOC:Privacy and Security in Online Social Networks                |
| 71 | 106106145 | NOC:Programming, Data Structures and Algorithms in Python         |
| 72 | 106106144 | NOC:Introduction to Operating Systems                             |
| 73 | 106106147 | NOC:Mobile Computing                                              |

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| 74  | 106106143 | NOC:Reinforcement Learning                               |
| 75  | 106106156 | NOC:Introduction to Modern Application Development       |
| 76  | 106105157 | Fundamental Algorithms:Design and Analysis               |
| 77  | 106106158 | NOC:AI:Constraint Satisfaction                           |
| 78  | 106102157 | NOC:Computer Architecture                                |
| 79  | 106106157 | NOC:Information Security-3                               |
| 80  | 106105160 | NOC:Wireless Ad Hoc and Sensor Networks                  |
| 81  | 106105158 | NOC:Natural Language Processing                          |
| 82  | 106105161 | NOC:VLSI Physical Design                                 |
| 83  | 106105159 | NOC:Embedded Systems Design                              |
| 84  | 106105162 | NOC:Cryptography and Network Security                    |
| 85  | 106105163 | NOC:Computer Architecture and Organization               |
| 86  | 106105164 | NOC:Introduction to Algorithms and Analysis              |
| 87  | 106105165 | NOC:Hardware Modeling using Verilog                      |
| 88  | 106105166 | NOC:Introduction to Internet of Things                   |
| 89  | 106105167 | NOC:Cloud Computing                                      |
| 90  | 106101163 | NOC:Software Testing                                     |
| 91  | 106106166 | NOC:Computer Organization                                |
| 92  | 106106167 | NOC:Introduction to Wireless and Cellular Communications |
| 93  | 106102163 | NOC:Introduction to Parallel Programming in OpenMP       |
| 94  | 106106168 | NOC:Distributed Systems                                  |
| 95  | 106106169 | NOC:Social Networks                                      |
| 96  | 106105172 | NOC:Real Time Operating System                           |
| 97  | 106106176 | NOC:An Introduction to Probability in Computing          |
| 98  | 106104170 | NOC:Advanced Graph Theory                                |
| 99  | 106105173 | NOC:Introduction to Soft Computing                       |
| 100 | 106105174 | NOC:Data Mining                                          |
| 101 | 106105175 | NOC:Data Base Management System                          |
| 102 | 106106177 | NOC:Introduction to Human Computer Interaction           |

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| 103 | 106106178 | NOC:Information Security - IV                                      |
| 104 | 106106179 | NOC:Data Science for Engineers                                     |
| 105 | 106103180 | NOC:Computer Organization and Architecture - A Pedagogical Aspect  |
| 106 | 106105171 | NOC:Problem Solving through Programming in C                       |
| 107 | 106102181 | NOC:Synthesis of Digital Systems                                   |
| 108 | 106101182 | NOC:Design and Pedagogy of the Introductory Programming Course     |
| 109 | 106103182 | NOC:Embedded Systems-Design Verification and Test                  |
| 110 | 106103183 | NOC:Multi-Core Computer Architecture-Storage and Interconnects     |
| 111 | 106104182 | NOC:Cloud Computing and Distributed Systems                        |
| 112 | 106105182 | NOC:Software Engineering                                           |
| 113 | 106105183 | NOC:Computer Networks and Internet Protocol                        |
| 114 | 106105184 | NOC:Blockchain Architecture Design and Use Cases                   |
| 115 | 106105185 | NOC:Switching Circuits and Logic Design                            |
| 116 | 106105186 | NOC:Scalable Data Science                                          |
| 117 | 106106182 | NOC:The Joy of Computing using Python                              |
| 118 | 106106183 | NOC:Discrete Mathematics                                           |
| 119 | 106106184 | NOC:Deep Learning                                                  |
| 120 | 106103187 | NOC:Randomized Algorithms                                          |
| 121 | 106103188 | NOC:Parallel Algorithms                                            |
| 122 | 106104189 | NOC:Big Data Computing                                             |
| 123 | 106105190 | NOC:Compiler Design                                                |
| 124 | 106105191 | NOC:Programming in Java                                            |
| 125 | 106105192 | NOC:Discrete Structures                                            |
| 126 | 106105193 | NOC:Embedded System Design with ARM                                |
| 127 | 106105194 | NOC:Hardware Security                                              |
| 128 | 106105195 | NOC:Introduction to Industry 4.0 and Industrial Internet of Things |
| 129 | 106105196 | NOC:Introduction to Automata, Languages and Computation            |
| 130 | 106106197 | NOC:Foundations to Computer Systems Design                         |
| 131 | 106106198 | NOC:Machine Learning for Engineering and Science Applications      |

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| 132 | 106106199 | NOC:Information Security 5 - Secure Systems Engineering    |
| 133 | 106106200 | NOC:Multimodal Interaction                                 |
| 134 | 106106201 | NOC:Deep Learning - Part 2                                 |
| 135 | 106106202 | NOC:Machine Learning, ML                                   |
| 136 | 106101208 | NOC:An Introduction to Programming Through C++             |
| 137 | 106101209 | NOC:Demystifying Networking                                |
| 138 | 106103205 | NOC:Discrete Mathematics                                   |
| 139 | 106103206 | NOC:Advanced Computer Architecture                         |
| 140 | 106105214 | NOC:Operating System Fundamentals                          |
| 141 | 106105215 | NOC:Deep Learning (2019)                                   |
| 142 | 106105216 | NOC:Computer Vision                                        |
| 143 | 106105217 | NOC:Ethical Hacking                                        |
| 144 | 106105218 | NOC:Software Project Management                            |
| 145 | 106105219 | NOC:Spatial Informatics                                    |
| 146 | 106106210 | NOC:C Programming and Assembly Language                    |
| 147 | 106106211 | NOC:Applied Natural Language Processing                    |
| 148 | 106106212 | NOC:Python for Data Science                                |
| 149 | 106106213 | NOC:Practical Machine Learning with Tensorflow             |
| 150 | 106102132 | Operating Systems                                          |
| 151 | 106102220 | NOC:An Introduction to Artificial Intelligence             |
| 152 | 106104221 | NOC:Arithmetic Circuit Complexity                          |
| 153 | 106107220 | NOC:Data Analytics with Python                             |
| 154 | 106106221 | NOC:Foundations of Cryptography                            |
| 155 | 106105220 | NOC:GPU Architectures and Programming                      |
| 156 | 106104220 | NOC:Introduction to Blockchain Technology and Applications |
| 157 | 106106220 | NOC:Introduction to Database Systems                       |
| 158 | 106106222 | NOC:Modern Application Development (2020.S1)               |
| 159 | 106103220 | NOC:User-centric Computing for Human-Computer Interaction  |
| 160 | 106105223 | NOC:Google Cloud Computing Foundation Course               |

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| 161 | 110101145 | NOC:Bandit Algorithm (Online Machine Learning)                                      |
| 162 | 106103224 | NOC:Computer Graphics                                                               |
| 163 | 106105225 | NOC:Data Structure and Algorithms using Java                                        |
| 164 | 106106224 | NOC:Deep Learning for Computer Vision                                               |
| 165 | 106105224 | NOC:Object Oriented System Development using UML, Java and Patterns                 |
| 166 | 106106226 | NOC:Artificial Intelligence Search Methods For Problem Solving                      |
| 167 | 106104227 | NOC:Computational Complexity Theory                                                 |
| 168 | 106104228 | NOC:Randomized Methods in Complexity                                                |
| 169 | 106108227 | NOC:Discrete Mathematics (IIITB)                                                    |
| 170 | 106102229 | NOC:Advanced Computer Architecture                                                  |
| 171 | 106103229 | NOC:C-Based VLSI Design                                                             |
| 172 | 106105229 | NOC:Real-Time Systems                                                               |
| 173 | 106105230 | NOC:Algorithms for Protein Modelling and Engineering                                |
| 174 | 106106229 | NOC:Computational Complexity                                                        |
| 175 | 106106230 | NOC:Parameterized Algorithms                                                        |
| 176 | 106106231 | NOC:Getting Started with Competitive Programming                                    |
| 177 | 106106232 | NOC:Introduction to Quantum Computing: Quantum Algorithms and Qiskit                |
| 178 | 106108229 | NOC:Secure Computation: Part I                                                      |
| 179 | 106104233 | NOC:Probability for Computer Science                                                |
| 180 | 106101234 | NOC:Design and Engineering of Computer Systems                                      |
| 181 | 106101235 | NOC:Software Conceptual Design                                                      |
| 182 | 106105234 | NOC:Programming in Modern C++                                                       |
| 183 | 106105235 | NOC:Blockchain and its Applications                                                 |
| 184 | 106106234 | NOC:Systems and Usable Security                                                     |
| 185 | 106106235 | NOC:Online Privacy                                                                  |
| 186 | 106106236 | NOC:Introduction to Machine Learning (Tamil)                                        |
| 187 | 106106237 | Compiler Design                                                                     |
| 188 | 106101237 | NOC:Introduction to Game Theory and Mechanism Design                                |
| 189 | 106101238 | NOC:Introduction to Computer and Network Performance Analysis using Queuing Systems |

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| 190                                          | 106102237 | NOC:Advanced Distributed systems                                         |
| 191                                          | 106103237 | NOC:Design and Implementation of Human-Computer Interfaces               |
| 192                                          | 106105237 | NOC:Algorithmic Game Theory                                              |
| 193                                          | 106105238 | NOC:Machine Learning for Earth System Sciences                           |
| 194                                          | 106105239 | NOC:Statistical Learning for Reliability Analysis                        |
| 195                                          | 106106238 | NOC:Applied Accelerated Artificial Intelligence                          |
| 196                                          | 106106239 | NOC:Social Network Analysis                                              |
| 197                                          | 106108237 | NOC:Secure Computation - Part II                                         |
| 198                                          | 106104241 | NOC:Circuit Complexity Theory                                            |
| 199                                          | 106104242 | NOC:Foundation of Cloud IoT Edge ML                                      |
| 200                                          | 106105241 | NOC:Foundations of Cyber Physical Systems                                |
| 201                                          | 106105242 | NOC:Selected Topics in Algorithms                                        |
| 202                                          | 106106241 | NOC:Quantum Algorithms and Cryptography                                  |
| 203                                          | 106106242 | NOC:Theory of Computation (2023)                                         |
| 204                                          | 106106243 | NOC:Advanced Computer Networks                                           |
| 205                                          | 106106244 | NOC:Affective Computing                                                  |
| 206                                          | 106106245 | NOC:Optimisation for Machine Learning: Theory and Implementation (Hindi) |
| 207                                          | 106106246 | ACM India - RBCDSAI Summer School on DS/AI/ML                            |
| 208                                          | 106105247 | NOC:Foundations and Applications of Machine Learning (Bengali)           |
| 209                                          | 106106247 | NOC:Machine Learning (ML) in Hindi                                       |
| 210                                          | 106106248 | NOC:Cyber Security and Privacy                                           |
| 211                                          | 106103184 | NOC:Multi-Core Computer Architecture                                     |
|                                              |           |                                                                          |
| <b>Engineering Design (19 Video Courses)</b> |           |                                                                          |
|                                              |           |                                                                          |
| 1                                            | 107103004 | Ergonomics for beginners: Industrial design perspective                  |
| 2                                            | 107106009 | Principles of Engineering System Design                                  |
| 3                                            | 107106080 | Vehicle Dynamics                                                         |
| 4                                            | 107103081 | NOC:System Design for Sustainability                                     |

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| 5  | 107103082 | NOC:Product Design and Innovation                 |
| 6  | 107103083 | NOC:Interaction Design                            |
| 7  | 107106081 | NOC:Control Systems                               |
| 8  | 107103084 | NOC:Ergonomics In Automotive Design               |
| 9  | 107103085 | NOC:Ergonomics Workplace Analysis                 |
| 10 | 107101086 | NOC:Innovation by Design                          |
| 11 | 107101087 | NOC:Understanding Design                          |
| 12 | 107101088 | NOC:Design, Technology and Innovation             |
| 13 | 107106088 | NOC:Fundamentals of Automotive Systems            |
| 14 | 107105088 | NOC:Geographic Information System                 |
| 15 | 107106089 | NOC:Functional and Conceptual Design              |
| 16 | 107106090 | NOC:Introduction to Robotics                      |
| 17 | 107101091 | NOC:Understanding Ethnography                     |
| 18 | 107101092 | NOC:Understanding Incubation and Entrepreneurship |
| 19 | 107103093 | NOC:Ergonomics Research Techniques                |

### Electrical Engineering (206 Video Courses)

|    |           |                                                        |
|----|-----------|--------------------------------------------------------|
| 1  | 108101002 | Nonlinear Dynamical Systems                            |
| 2  | 108101004 | Power System Dynamics and Control                      |
| 3  | 108101037 | Control Engineering (Prof. S.D. Agashe)                |
| 4  | 108101038 | Power Electronics                                      |
| 5  | 108102042 | Circuit Theory                                         |
| 6  | 108102043 | Control Engineering (Prof. M. Gopal)                   |
| 7  | 108102045 | Embedded Systems                                       |
| 8  | 108102047 | Power System Generation, Transmission and Distribution |
| 9  | 108102080 | Power System Dynamics                                  |
| 10 | 108103007 | Advanced Control Systems                               |
| 11 | 108104011 | Advanced Electric Drives                               |

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| 12 | 108104013 | High Voltage DC Transmission                           |
| 13 | 108104049 | Intelligent Systems and Control                        |
| 14 | 108104052 | Power Systems Operation and Control                    |
| 15 | 108105017 | Electrical Machines - I                                |
| 16 | 108105019 | Optimal Control                                        |
| 17 | 108105054 | Chaos, Fractals and Dynamic Systems                    |
| 18 | 108105055 | Digital Signal Processing                              |
| 19 | 108105056 | Dynamics of Physical Systems                           |
| 20 | 108105058 | Energy Resources and Technology                        |
| 21 | 108105059 | Estimation of Signals and Systems                      |
| 22 | 108105060 | Illumination Engineering                               |
| 23 | 108105062 | Industrial Automation and Control                      |
| 24 | 108105064 | Industrial Instrumentation                             |
| 25 | 108105065 | Networks Signals and Systems                           |
| 26 | 108105067 | Power System Analysis                                  |
| 27 | 108106023 | Modelling and Analysis of Electric Machines            |
| 28 | 108106068 | Analog ICs                                             |
| 29 | 108106069 | Digital Integrated Circuits                            |
| 30 | 108106073 | Electromagnetic Fields                                 |
| 31 | 108106075 | Networks and Systems                                   |
| 32 | 108106083 | Probability Foundation for Electrical Engineers        |
| 33 | 108108031 | An Introduction to Electronics Systems Packaging       |
| 34 | 108108034 | Power Electronics and Distributed Generation           |
| 35 | 108108035 | Pulse width Modulation for Power Electronic Converters |
| 36 | 108108036 | Switched Mode Power Conversion                         |
| 37 | 108108076 | Basic Electrical Technology                            |
| 38 | 108108077 | Industrial Drives - Power Electronics                  |
| 39 | 108106084 | NOC:Analog Circuits                                    |
| 40 | 108106085 | NOC:Introduction to Non Linear Dynamics                |

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| 41 | 108105088 | NOC:Industrial Automation and Control                                  |
| 42 | 108104087 | NOC:Electromagnetic Theory                                             |
| 43 | 108101089 | Fabrication of Silicon VLSI Circuits using the MOS technology          |
| 44 | 108101090 | NOC:Computational Electromagnetics and Applications                    |
| 45 | 108101092 | NOC:Antennas                                                           |
| 46 | 108101094 | NOC:Analog Circuits                                                    |
| 47 | 108101093 | NOC:Fundamentals of Wavelets, Filter Banks and Time Frequency Analysis |
| 48 | 108101091 | NOC:Basic Electronics                                                  |
| 49 | 108104092 | NOC:An Introduction to Coding Theory                                   |
| 50 | 108102095 | Analog Electronic Circuits                                             |
| 51 | 108102096 | Digital Communication                                                  |
| 52 | 108102097 | Introduction To Electronic Circuits                                    |
| 53 | 108105091 | NOC:Medical Image Analysis                                             |
| 54 | 108104091 | NOC:Principles of Communication - Part I                               |
| 55 | 108107098 | NOC:Optimal Control                                                    |
| 56 | 108106098 | NOC:Control Engineering                                                |
| 57 | 108104098 | NOC:Principles of Communication Systems - Part II                      |
| 58 | 108104099 | NOC:Applied Engineering Electromagnetics                               |
| 59 | 108108098 | NOC:Design for Internet of Things                                      |
| 60 | 108108099 | NOC:Advances in UHV Transmission and Distribution                      |
| 61 | 108103108 | NOC:Optimization Techniques for Digital VLSI Design                    |
| 62 | 108108110 | NOC:Electronics Enclosures Thermal Issues                              |
| 63 | 108106106 | NOC:Probability Foundations for Electrical Engineers                   |
| 64 | 108105104 | NOC:Power System Engineering                                           |
| 65 | 108104100 | NOC:Principles of Signals and Systems                                  |
| 66 | 108105103 | NOC:Deep Learning for Visual Computing                                 |
| 67 | 108105101 | NOC:Biomedical Signal Processing                                       |
| 68 | 108105102 | NOC:Microprocessors and Microcontrollers                               |
| 69 | 108108109 | NOC:Mathematical Methods and Techniques in Signal Processing           |

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| 70 | 108108111 | NOC:Integrated Circuits, MOSFETs, Op-Amps and their Applications                                  |
| 71 | 108101112 | NOC:Microwave Theory and Techniques                                                               |
| 72 | 108101113 | NOC:Principles of Digital Communications                                                          |
| 73 | 108102112 | NOC:Analog Electronic Circuit                                                                     |
| 74 | 108102113 | NOC:Nonlinear and Adaptive Control                                                                |
| 75 | 108103112 | NOC:Advanced Topics in Probability and Random Processes                                           |
| 76 | 108104112 | NOC:Applied Optimization for Wireless, Machine Learning, Big Data                                 |
| 77 | 108104113 | NOC:Fiber-Optic Communication Systems and Techniques                                              |
| 78 | 108105112 | NOC:Fundamentals of Electrical Engineering                                                        |
| 79 | 108105113 | NOC:Digital Circuits                                                                              |
| 80 | 108105114 | NOC:Analysis and Design Principles of Microwave Antennas                                          |
| 81 | 108105118 | NOC:Architectural Design of Digital Integrated Circuits                                           |
| 82 | 108107112 | NOC:Electrical Distribution System Analysis                                                       |
| 83 | 108107113 | NOC:Introduction to Smart Grid                                                                    |
| 84 | 108107114 | NOC:Facts Devices                                                                                 |
| 85 | 108107115 | NOC:Advanced Linear Continuous Control Systems: Applications with MATLAB Programming and Simulink |
| 86 | 108108112 | NOC:Semiconductor Devices and Circuits                                                            |
| 87 | 108108113 | NOC:Fabrication Techniques for MEMs-based Sensors: Clinical Perspective                           |
| 88 | 108108114 | NOC:Op-Amp Practical Applications:Design,Simulation and Implementation                            |
| 89 | 108108115 | NOC:Physical Modelling for Electronics Enclosures using Rapid Prototyping                         |
| 90 | 108108116 | NOC:Recent Advances in Transmission Insulators                                                    |
| 91 | 108102117 | NOC:Information Theory, Coding and Cryptography                                                   |
| 92 | 108101126 | NOC:Fundamental of Power Electronics                                                              |
| 93 | 108102120 | NOC:Principles of Digital Communications                                                          |
| 94 | 108102121 | NOC:Electric Vehicles - Part 1                                                                    |
| 95 | 108104130 | NOC:Electromagnetic Waves in Guided and Wireless Media                                            |
| 96 | 108105131 | NOC:Electrical Machines-II                                                                        |
| 97 | 108105132 | NOC:Digital Electronic Circuits                                                                   |

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| 98  | 108105133 | NOC:Power System Dynamics, Control and Monitoring                |
| 99  | 108105134 | NOC:Evolution of Air Interface towards 5G                        |
| 100 | 108106135 | NOC:Introduction to Photonics                                    |
| 101 | 108106136 | NOC:Multirate DSP                                                |
| 102 | 108106137 | NOC:LDPC and Polar Codes in 5G Standard                          |
| 103 | 108106138 | NOC:Electromagnetic Compatibility, EMC                           |
| 104 | 108107127 | NOC:Computer Aided Power System Analysis                         |
| 105 | 108107128 | NOC:Advance Power Electronics and Control                        |
| 106 | 108107129 | NOC:CMOS Digital VLSI Design                                     |
| 107 | 108108122 | NOC:Fundamentals of Semiconductor Devices                        |
| 108 | 108108123 | NOC:Advanced IOT Applications                                    |
| 109 | 108108124 | NOC:Electronic Systems for Cancer Diagnosis                      |
| 110 | 108108125 | NOC:Electronic Modules for Industrial Applications using Op-Amps |
| 111 | 108108148 | NOC:Neural Networks for Signal Processing – I                    |
| 112 | 108102145 | NOC:Power Electronics                                            |
| 113 | 108102146 | NOC:Electrical Machines                                          |
| 114 | 108103141 | NOC:Microwave Engineering                                        |
| 115 | 108104139 | NOC:Basic Electric Circuits                                      |
| 116 | 108104140 | NOC:Fundamentals of Electric Drives                              |
| 117 | 108105153 | NOC:Electrical Measurement and Electronic Instruments            |
| 118 | 108105154 | NOC:Principles and Techniques of Modern Radar Systems            |
| 119 | 108105155 | NOC:Electrical Machines - I                                      |
| 120 | 108106149 | NOC:Mapping Signal Processing Algorithms to Architectures        |
| 121 | 108106150 | NOC:Linear System Theory                                         |
| 122 | 108106151 | NOC:Digital Signal Processing                                    |
| 123 | 108106152 | NOC:Computational Electromagnetics                               |
| 124 | 108107142 | NOC:Microelectronics: Devices to Circuits                        |
| 125 | 108107143 | NOC:DC Microgrid                                                 |
| 126 | 108108147 | NOC:Sensors and Actuators                                        |

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| 127 | 108102119 | Engineering Electromagnetics                                                   |
| 128 | 108106165 | NOC:A Brief Introduction of Micro-Sensors                                      |
| 129 | 108105158 | NOC:Analog Electronic Circuits                                                 |
| 130 | 108106160 | NOC:DC Power Transmission Systems                                              |
| 131 | 108106158 | NOC:Digital IC Design                                                          |
| 132 | 108108157 | NOC:Electronics Equipment Integration and Prototype Building                   |
| 133 | 108104157 | NOC:Fuzzy Sets, Logic and Systems and Applications                             |
| 134 | 108102157 | NOC:High Power Multilevel Converters - Analysis, Design and Operational Issues |
| 135 | 108106164 | NOC:Linear Dynamical Systems                                                   |
| 136 | 108103157 | NOC:Microprocessors and Interfacing                                            |
| 137 | 108105159 | NOC:Network Analysis                                                           |
| 138 | 108106162 | NOC:Nonlinear System Analysis                                                  |
| 139 | 108106161 | NOC:Optical Engineering                                                        |
| 140 | 108106159 | NOC:Power Management Integrated Circuits                                       |
| 141 | 108107157 | NOC:Power Quality Improvement Technique                                        |
| 142 | 108106163 | NOC:Signals and Systems                                                        |
| 143 | 108103158 | NOC:Statistical Signal Processing                                              |
| 144 | 108106157 | NOC:Transmission Lines and Electromagnetic Waves                               |
| 145 | 108105157 | NOC:VLSI Signal Processing                                                     |
| 146 | 108102156 | Special Electromechanical Systems                                              |
| 147 | 108108166 | NOC:Design and Simulation of Power conversion using open source tools          |
| 148 | 108101167 | NOC:Electrical Equipment and Machines: Finite Element Analysis                 |
| 149 | 108106167 | NOC:Fiber Optic Communication Technology                                       |
| 150 | 108106168 | NOC:Image Signal Processing                                                    |
| 151 | 108108168 | NOC:Information Theory                                                         |
| 152 | 108102169 | NOC:Introduction to Embedded System Design                                     |
| 153 | 108108167 | NOC:Introductory Neuroscience and Neuro-Instrumentation                        |
| 154 | 108104167 | NOC:Peer to Peer Networks                                                      |
| 155 | 108105167 | NOC:Power System Protection                                                    |

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| 156 | 108107167 | NOC:Power System Protection and Switchgear                                            |
| 157 | 108106170 | NOC:Fundamentals of Electric Vehicles: Technology and Economics                       |
| 158 | 108106171 | NOC:Applied Linear Algebra                                                            |
| 159 | 108106172 | NOC:Basic Electrical Circuits                                                         |
| 160 | 108106173 | NOC:Optical Fiber Sensors                                                             |
| 161 | 108101174 | NOC:Digital Signal Processing and its Applications                                    |
| 162 | 108103174 | NOC:Computer Vision and Image Processing - Fundamentals and Applications              |
| 163 | 108104174 | NOC:Applied Linear Algebra for Signal Processing, Data Analytics and Machine Learning |
| 164 | 108106174 | NOC:Introduction to Time - Varying Electrical Networks                                |
| 165 | 108106177 | NOC:Digital System Design                                                             |
| 166 | 108108174 | NOC:Photonic Integrated Circuit                                                       |
| 167 | 108102179 | NOC:Power Quality                                                                     |
| 168 | 108103179 | NOC:System Design through VERILOG                                                     |
| 169 | 108105179 | NOC:Signal Processing for mm Wave communication for 5G and beyond                     |
| 170 | 108105180 | NOC:Control and Tuning Methods in Switched Mode Power Converters                      |
| 171 | 108105181 | NOC:Advanced Microwave Guided-Structures and Analysis                                 |
| 172 | 108106179 | NOC:Stochastic Modeling and the Theory of Queues                                      |
| 173 | 108106180 | NOC:Integrated Photonics Devices and Circuits                                         |
| 174 | 108106181 | NOC:Introduction to Semiconductor Devices                                             |
| 175 | 108108179 | NOC:Design for Internet of Things                                                     |
| 176 | 108108180 | NOC:Mathematical Aspects of Biomedical Electronic System Design                       |
| 177 | 108108181 | NOC:Concentration Inequalities                                                        |
| 178 | 108106182 | NOC:Electric Vehicles and Renewable Energy                                            |
| 179 | 108103183 | NOC:Usability Engineering                                                             |
| 180 | 108101185 | NOC:Stochastic Control and Communication                                              |
| 181 | 108102185 | NOC:Introduction to Electrical Engineering                                            |
| 182 | 108103185 | NOC:Probability and Random Processes                                                  |
| 183 | 108105185 | NOC:Cognition and its Computation                                                     |
| 184 | 108105186 | NOC:Digital Control in Switched Mode Power Converters and FPGA-based Prototyping      |

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| 185 | 108105187 | NOC:VLSI Interconnects                                                 |
| 186 | 108106184 | Phase-locked loops                                                     |
| 187 | 108106186 | NOC:Fundamentals of Nano and Quantum Photonics                         |
| 188 | 108108185 | NOC:Real-Time Digital Signal Processing                                |
| 189 | 108105188 | NOC:Semiconductor Device Modeling and Simulation                       |
| 190 | 108105189 | NOC:RF and Microwave Networks                                          |
| 191 | 108106188 | NOC:Analog Electronic Circuits (IITM)                                  |
| 192 | 108106189 | NOC:Modern Computer Vision                                             |
| 193 | 108106190 | NOC:Optical Wireless Communications for Beyond 5G Networks and IoT     |
| 194 | 108108188 | NOC:Advanced Neural Science for Engineers                              |
| 195 | 108102191 | NOC:Transducers for Instrumentation                                    |
| 196 | 108103191 | NOC:Simulation of Communication Systems using Matlab                   |
| 197 | 108103192 | NOC:Machine Learning and Deep Learning - Fundamentals and Applications |
| 198 | 108104191 | NOC:Economic Operations and Control of Power Systems                   |
| 199 | 108104192 | NOC:Digital Switching                                                  |
| 200 | 108104193 | NOC:Analog VLSI Design                                                 |
| 201 | 108105191 | NOC:Introduction to Adaptive Signal Processing                         |
| 202 | 108105192 | NOC:Nanobiophotonics: Touching Our Daily Life                          |
| 203 | 108106191 | NOC:VLSI Design Flow: RTL to GDS                                       |
| 204 | 108106192 | NOC:Fundamentals of Wireless Communication (Hindi)                     |
| 205 | 108106193 | NOC:Sensor Technologies: Physics, Fabrication, and Circuits            |
| 206 | 108108191 | NOC:Design of Electric Motors                                          |

### Humanities and Social Sciences (210 Video Courses)

|   |           |                                                         |
|---|-----------|---------------------------------------------------------|
| 1 | 109101004 | Contemporary Issues in Philosophy of Mind and Cognition |
| 2 | 109101017 | Understanding Creativity and Creative Writing           |
| 3 | 109103019 | Cultural Studies                                        |
| 4 | 109103020 | English Language and Literature                         |

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| 5  | 109103021 | Game Theory and Economics                     |
| 6  | 109104031 | Communication Skills                          |
| 7  | 109104035 | International Economics                       |
| 8  | 109104040 | Introduction to Logic                         |
| 9  | 109104045 | Population and Society                        |
| 10 | 109104073 | Macro Economics                               |
| 11 | 109104074 | Introduction to Sociology                     |
| 12 | 109104076 | Money and Banking                             |
| 13 | 109104081 | Human Adjustment Processes                    |
| 14 | 109104082 | Selected Topics in Psychology                 |
| 15 | 109104088 | NOC:Elements of Visual Representation         |
| 16 | 109106052 | Aspects of Western Philosophy                 |
| 17 | 109106053 | Contemporary Literature                       |
| 18 | 109106058 | History of Economic Theory                    |
| 19 | 109106059 | Indian Philosophy                             |
| 20 | 109106067 | Better Spoken English                         |
| 21 | 109106079 | Introduction to Film Studies                  |
| 22 | 109106080 | Introduction to Modern Linguistics            |
| 23 | 109106083 | Principles and Parameters in Natural Language |
| 24 | 109106084 | NOC:Literary Criticism and Literary Theory    |
| 25 | 109106085 | NOC:Language and Mind                         |
| 26 | 109106086 | NOC:Film Appreciation                         |
| 27 | 109106087 | NOC:Appreciating Carnatic Music               |
| 28 | 109106089 | NOC:Infrastructure Economics                  |
| 29 | 109104090 | NOC:Practical English: Learning and Teaching  |
| 30 | 109106091 | NOC:Language and Society                      |
| 31 | 109104093 | NOC:Brief introduction to Psychology          |
| 32 | 109106092 | NOC:Issues in Bioethics                       |
| 33 | 109106094 | NOC:Technical English for Engineers           |

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| 34 | 109106095 | NOC:Health Research Fundamentals                                            |
| 35 | 109104032 | Ethics                                                                      |
| 36 | 109105098 | NOC:Legal Compliance for Incorporating Startup                              |
| 37 | 109105097 | NOC:Technology Transfer through Joint Venture                               |
| 38 | 109104096 | NOC:Psychiatry:An overview                                                  |
| 39 | 109105111 | NOC:Symbolic Logic                                                          |
| 40 | 109105110 | NOC:Soft Skill Development                                                  |
| 41 | 109105113 | NOC:Globalization and Culture                                               |
| 42 | 109104107 | NOC:Developing Soft Skills and Personality                                  |
| 43 | 109104106 | NOC:Folk and Minor Art in India                                             |
| 44 | 109104105 | NOC:Introduction to Psychology                                              |
| 45 | 109104108 | NOC:How the Brain Creates Mind                                              |
| 46 | 109104102 | NOC:Introduction to Indian Art - An appreciation                            |
| 47 | 109104109 | NOC:Understanding Design Thinking and People Centered Design                |
| 48 | 109104104 | NOC:Probability and Stochastic for Finance II                               |
| 49 | 109104103 | NOC:Basic Concepts of Modal Logic                                           |
| 50 | 109106099 | NOC:American Literature and Culture                                         |
| 51 | 109103101 | NOC:Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation |
| 52 | 109106114 | NOC:Applied Linguistics                                                     |
| 53 | 109106100 | NOC:Economics of IPR                                                        |
| 54 | 109105112 | NOC:Introduction on Intellectual Property to Engineers and Technologists    |
| 55 | 109107115 | NOC:Time value of money-Concepts and Calculations                           |
| 56 | 109107119 | NOC:Depreciation, Alternate Investment and Profitability Analysis           |
| 57 | 109104116 | NOC:Postcolonial Literature                                                 |
| 58 | 109105116 | NOC:Emotional Intelligence                                                  |
| 59 | 109104117 | NOC:Introducing Modern Western Art: Movements and Artists                   |
| 60 | 109104115 | NOC:Enhancing Soft Skills and Personality                                   |
| 61 | 109105118 | NOC:Great Experiments in Psychology                                         |
| 62 | 109106117 | NOC:Ethics                                                                  |

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| 63 | 109105115 | NOC:Qualitative Research Methods                            |
| 64 | 109106120 | NOC:The Renaissance and Shakespeare                         |
| 65 | 109106116 | NOC:English Language for Competitive Exams                  |
| 66 | 109105117 | NOC:Speaking Effectively                                    |
| 67 | 109107121 | NOC:Soft Skills                                             |
| 68 | 109106122 | NOC:Literature for Competitive Exams                        |
| 69 | 109104121 | NOC:Cognition, Transformation and Lives                     |
| 70 | 109104122 | NOC:Visual Perception and Art: A Survey Across the Cultures |
| 71 | 109104123 | NOC:Introduction to Basic Cognitive Processes               |
| 72 | 109104124 | NOC:Calculus of One Real Variable                           |
| 73 | 109103121 | NOC:Science, Technology and Society                         |
| 74 | 109103122 | NOC:Gender and Literature                                   |
| 75 | 109103123 | NOC:Ecology and Society                                     |
| 76 | 109106124 | NOC:History of English Language and Literature              |
| 77 | 109105121 | NOC:Human Resource Development                              |
| 78 | 109105122 | NOC:Educational Leadership                                  |
| 79 | 109107131 | NOC:Sociology of Science                                    |
| 80 | 109107132 | NOC:Perspectives on Neurolinguistic                         |
| 81 | 109106128 | NOC:Patent Drafting for Beginners                           |
| 82 | 109106129 | NOC:Business English Communication                          |
| 83 | 109105127 | NOC:Strategic Performance Management                        |
| 84 | 109106130 | NOC:Postmodernism in Literature                             |
| 85 | 109104126 | NOC:Introduction to Advanced Cognitive Processes            |
| 86 | 109104125 | NOC:An Introduction to Microeconomics                       |
| 87 | 109103133 | NOC:Sociological Perspectives on Modernity                  |
| 88 | 109103134 | NOC:Introduction to Cognitive Psychology                    |
| 89 | 109103135 | NOC:Introduction to Modern Indian Political Thought         |
| 90 | 109103136 | NOC:Consumer Psychology                                     |
| 91 | 109104135 | NOC:Introduction to Literary Theory                         |

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| 92  | 109104136 | NOC:Development of Sociology in India                    |
| 93  | 109105135 | NOC:Introduction to Basic Spoken Sanskrit                |
| 94  | 109105136 | NOC:Water, Society and Sustainability                    |
| 95  | 109106135 | NOC:Indian Fiction in English                            |
| 96  | 109106136 | NOC:Introduction to Cultural Studies                     |
| 97  | 109106137 | NOC:Intellectual Property                                |
| 98  | 109106138 | NOC:Short Fiction in Indian Literature                   |
| 99  | 109103140 | NOC:Introduction to Modern Indian Drama                  |
| 100 | 109103141 | NOC:Introduction to Political Theory                     |
| 101 | 109103142 | NOC:Human Behaviour                                      |
| 102 | 109104143 | NOC:Introduction to the Psychology of Language           |
| 103 | 109105144 | NOC:Employment Communication A Lab based course          |
| 104 | 109106145 | NOC:The Nineteenth-Century English Novel                 |
| 105 | 109106146 | NOC:Feminist Writings                                    |
| 106 | 109106147 | NOC:Introduction to World Literature                     |
| 107 | 109106148 | NOC:Managing Intellectual Property in Universities       |
| 108 | 109106149 | NOC:English Literature of the Romantic Period, 1798-1832 |
| 109 | 109107139 | NOC:Literature, Culture and Media                        |
| 110 | 109106170 | Introduction to Film Studies (2019)                      |
| 111 | 109102156 | NOC:Text, Textuality and Digital Media                   |
| 112 | 109102157 | NOC:Positive Psychology                                  |
| 113 | 109103152 | NOC:The Psychology of Language                           |
| 114 | 109103153 | NOC:Development Research Methods                         |
| 115 | 109104150 | NOC:Population Studies                                   |
| 116 | 109104151 | NOC:Psychology of Everyday                               |
| 117 | 109105169 | NOC:Intermediate Level of Spoken Sanskrit                |
| 118 | 109106159 | NOC:Appreciating Linguistics: A Typological Approach     |
| 119 | 109106160 | NOC:Inclusion and Technology Design                      |
| 120 | 109106161 | NOC:Energy Economics and Policy                          |

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| 121 | 109106163 | NOC:The Victorian Gothic Short Story                                    |
| 122 | 109106165 | NOC:German-II                                                           |
| 123 | 109106166 | NOC:German-I                                                            |
| 124 | 109106168 | NOC:Disability Studies: An Introduction                                 |
| 125 | 109107154 | NOC:Body language: Key to professional Success                          |
| 126 | 109107155 | NOC:Interpersonal Skills                                                |
| 127 | 109108158 | NOC:Artistic Exploration in Scientific Research and Technology          |
| 128 | 109107172 | NOC:Effective Writing                                                   |
| 129 | 109101171 | NOC:Energy Resources, Economics and Environment                         |
| 130 | 109106175 | NOC:Feminism: Concepts and Theories                                     |
| 131 | 109103171 | NOC:Indian Business History                                             |
| 132 | 109104171 | NOC:Introduction to Brain and Behaviour                                 |
| 133 | 109107171 | NOC:Introduction to Environmental Economics                             |
| 134 | 109106174 | NOC:Introduction to Political Ideologies: Contexts, Ideas and Practices |
| 135 | 109106171 | NOC:Literary Criticism (From Plato to Leavis)                           |
| 136 | 109106173 | NOC:Modern Indian Writing in Translation                                |
| 137 | 109107173 | NOC:Strategic Trade and Protectionism - Theories and Empirics           |
| 138 | 109106172 | NOC:Twentieth Century Fiction                                           |
| 139 | 109106180 | NOC:Classical Sociological Theory                                       |
| 140 | 109105176 | NOC:Entrepreneurship and IP strategy                                    |
| 141 | 109103176 | NOC:Introduction to Western Political Thought                           |
| 142 | 109104176 | NOC:Modern Indian Art From the Colonial Period to the Present           |
| 143 | 109106176 | NOC:Poetry                                                              |
| 144 | 109106177 | NOC:The Popular Gothic Novel                                            |
| 145 | 109104181 | NOC:Introduction to Japanese Language and Culture                       |
| 146 | 109103182 | NOC:Psychology of Stress, Health and Well-being                         |
| 147 | 109103183 | NOC:Phonetics and Phonology: A Broad Overview                           |
| 148 | 109103184 | NOC:Philosophical Foundations of Social Research                        |
| 149 | 109104182 | NOC:Applied Statistics and Econometrics                                 |

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| 150 | 109104183 | NOC:Literature and Coping Skills                                |
| 151 | 109104184 | NOC:Indian Economy: Some Contemporary Perspectives              |
| 152 | 109106182 | NOC:Basics of Language Science                                  |
| 153 | 109106183 | NOC:Globalization: Theoretical Perspectives                     |
| 154 | 109106184 | NOC:Towards an Ethical Digital Society: From Theory to Practice |
| 155 | 109107182 | NOC:Handling Large Scale Unit Level Data Using STATA            |
| 156 | 109103185 | NOC:Sociology of Development                                    |
| 157 | 109103186 | NOC:Environment and Development                                 |
| 158 | 109103187 | NOC:Introduction to Market Structures                           |
| 159 | 109103188 | NOC:Mathematics for Economics - I                               |
| 160 | 109105185 | NOC:Urbanization and Environment                                |
| 161 | 109106185 | NOC:Literary and Cultural Disability Studies: An Exploration    |
| 162 | 109106186 | NOC:Trauma and Literature                                       |
| 163 | 109106187 | NOC:Twentieth Century American Drama                            |
| 164 | 109106188 | NOC:Fundamental Concepts in Sociolinguistics                    |
| 165 | 109101189 | NOC:Introduction to Paninian Grammar                            |
| 166 | 109103189 | NOC:Language, Culture and Cognition: An Introduction            |
| 167 | 109105189 | NOC:Advanced Level of Spoken Sanskrit                           |
| 168 | 109105190 | NOC:Education for Sustainable Development                       |
| 169 | 109105191 | NOC:Elements of Literature and Creative Communication           |
| 170 | 109105192 | NOC:Training and Development                                    |
| 171 | 109106189 | NOC:Literature and Life                                         |
| 172 | 109106190 | NOC:German - III                                                |
| 173 | 109106191 | NOC:Appreciating Hindustani Music                               |
| 174 | 109107189 | NOC:Indian Poetry in English                                    |
| 175 | 109107190 | NOC:Exploring Survey Data on Health Care                        |
| 176 | 109107191 | NOC:Contextualizing Gender                                      |
| 177 | 109104194 | NOC:Japani Bhasha - Saral Swaroop                               |
| 178 | 109101195 | NOC:Sandhi in Paninian Grammar                                  |

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| 179 | 109104195 | NOC:Introduction to Japanese Language and Culture-II                           |
| 180 | 109104196 | NOC:Indian Art: Materials, Techniques and Artistic Practices                   |
| 181 | 109104197 | NOC:प्रमुख हिंदी कहानियां और भारतीय समाज                                       |
| 182 | 109105195 | NOC:Sociology and Resource Management                                          |
| 183 | 109105196 | NOC:Urban Sociology                                                            |
| 184 | 109105197 | NOC:Management of Fixed Income Securities                                      |
| 185 | 109106195 | NOC:An Introduction to Indian Literary Theory                                  |
| 186 | 109107195 | NOC:Public Speaking                                                            |
| 187 | 109107196 | NOC:Partition of India in Print Media and Cinema                               |
| 188 | 109101198 | NOC:समास Samāsa in Pāṇinian Grammar-I                                          |
| 189 | 109103198 | NOC:Bilingualism: A Cognitive and Psycholinguistic Perspective                 |
| 190 | 109104198 | NOC:Computer Aided Decision Systems - Industrial Practices using Big Analytics |
| 191 | 109105198 | NOC:Petroleum Economics and Management                                         |
| 192 | 109105199 | NOC:The Science of Happiness and Wellbeing                                     |
| 193 | 109106198 | NOC:Host-Pathogen Interaction (Immunology)                                     |
| 194 | 109106199 | NOC:Indian Feminisms: Concepts and Issues                                      |
| 195 | 109106200 | NOC:United Nations Sustainable Development Goals                               |
| 196 | 109106201 | NOC:Learning English in Hindi                                                  |
| 197 | 109107198 | NOC:Narrative Mode and Fiction                                                 |
| 198 | 109107199 | NOC:Group Dynamics                                                             |
| 199 | 109101203 | NOC:समास Samāsa in Pāṇinian Grammar - II                                       |
| 200 | 109104203 | NOC:Introductory Rural Sociology: Continuity and Change                        |
| 201 | 109104204 | NOC:Threads of Visual Exploration: Textiles and Allied Practices               |
| 202 | 109104206 | NOC:Moral Thinking: An Introduction to Values and Ethics                       |
| 203 | 109105203 | NOC:Environmental Science                                                      |
| 204 | 109105204 | NOC:Psychology of Learning                                                     |
| 205 | 109105205 | NOC:Introduction to Language and Linguistics                                   |
| 206 | 109106203 | NOC:Social History of Medicine in Colonial India                               |
| 207 | 109106204 | NOC:Indian Society: Sociological Perspectives                                  |

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| 208                                   | 109107203 | NOC:Countering Stage Fright                                        |
| 209                                   | 109107204 | NOC:Advance Course in Social Psychology                            |
| 210                                   | 109107205 | NOC:Performative Gender and Religions in South Asia                |
|                                       |           |                                                                    |
| <b>Management (167 Video Courses)</b> |           |                                                                    |
|                                       |           |                                                                    |
| 1                                     | 110101003 | Managerial Accounting                                              |
| 2                                     | 110101005 | Managerial Economics                                               |
| 3                                     | 110102016 | Organisation Management                                            |
| 4                                     | 110102058 | Organisation of Engineering Systems and Human Resources Management |
| 5                                     | 110104055 | Strategic Marketing - Contemporary Issues                          |
| 6                                     | 110104063 | NOC:Strategy: An Introduction to game Theory                       |
| 7                                     | 110105030 | Econometric Modelling                                              |
| 8                                     | 110105033 | Organizational Behaviour                                           |
| 9                                     | 110105035 | Security Analysis and Portfolio Management                         |
| 10                                    | 110105039 | Six Sigma                                                          |
| 11                                    | 110105052 | International Business Communication                               |
| 12                                    | 110105054 | Consumer Behaviour                                                 |
| 13                                    | 110105057 | International Finance                                              |
| 14                                    | 110105060 | Applied Multivariate Statistical Modeling                          |
| 15                                    | 110106043 | Infrastructure Finance                                             |
| 16                                    | 110106044 | Manufacturing Systems Management                                   |
| 17                                    | 110106045 | Operations and Supply Chain Management                             |
| 18                                    | 110106050 | Business Analysis for Engineers                                    |
| 19                                    | 110106062 | NOC:Introduction to Operations Research                            |
| 20                                    | 110108047 | Strategic Management                                               |
| 21                                    | 110108056 | Global Supply Chain Management                                     |
| 22                                    | 110104066 | NOC:Quantitative Finance                                           |
| 23                                    | 110104065 | NOC:Managing Services                                              |

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| 24 | 110106064 | NOC:Introduction to Data Analytics                                            |
| 25 | 110105067 | Economics / Management / Entrepreneurship                                     |
| 26 | 110105069 | NOC:Principles of Human Resource Management                                   |
| 27 | 110104068 | NOC:Marketing Management - I                                                  |
| 28 | 110106072 | NOC:Introduction to Data analytics                                            |
| 29 | 110104070 | NOC:Marketing Management - II                                                 |
| 30 | 110105071 | NOC:Commodity Derivatives and Risk Management                                 |
| 31 | 110105073 | NOC:Strategic Communication for Sustainable Development                       |
| 32 | 110107073 | NOC:Financial Statement Analysis and Reporting                                |
| 33 | 110105078 | NOC:Services Marketing: A Practical Approach                                  |
| 34 | 110107074 | NOC:Supply Chain Analytics                                                    |
| 35 | 110105074 | NOC:Consumer Behaviour                                                        |
| 36 | 110105076 | NOC:Knowledge Management                                                      |
| 37 | 110105079 | NOC:Business Ethics                                                           |
| 38 | 110105075 | NOC:Foundation Course in Managerial Economics                                 |
| 39 | 110104074 | NOC:Systems Engineering: Theory and Practice                                  |
| 40 | 110104073 | NOC:Project Management                                                        |
| 41 | 110106081 | NOC:Patent Law for Engineers and Scientists                                   |
| 42 | 110107080 | NOC:Marketing Research and Analysis                                           |
| 43 | 110107081 | NOC:Project Management for Managers                                           |
| 44 | 110104080 | NOC:Total Quality Management - I                                              |
| 45 | 110105080 | NOC:Gender Justice and Workplace Security                                     |
| 46 | 110105081 | NOC:Corporate Social Responsibility                                           |
| 47 | 110105082 | NOC:Decision Modeling                                                         |
| 48 | 110105083 | NOC:E-Business                                                                |
| 49 | 110105091 | NOC:Research Writing                                                          |
| 50 | 110104084 | NOC:Management of New Products and Services                                   |
| 51 | 110104085 | NOC:Total Quality Management-II                                               |
| 52 | 110104086 | NOC:Practitioners Course In Descriptive,Predictive and Prescriptive Analytics |

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| 53 | 110105088 | NOC:Quality Design and Control                                     |
| 54 | 110105087 | NOC:Design and Analysis of Experiments                             |
| 55 | 110105089 | NOC:Business Analytics for Management Decision                     |
| 56 | 110107092 | NOC:Business Analytics and Data Mining Modeling using R            |
| 57 | 110105090 | NOC:Soft Skills for Business Negotiations and Marketing Strategies |
| 58 | 110103093 | NOC:Economic Growth and Development                                |
| 59 | 110104093 | NOC:Microeconomics: Theory and Applications                        |
| 60 | 110104094 | NOC:Data Analysis and Decision Making-I                            |
| 61 | 110104095 | NOC:Economics of Health and Health Care                            |
| 62 | 110104096 | NOC:Simulation of Business Systems: An Applied Approach            |
| 63 | 110105093 | NOC:Engineering Econometrics                                       |
| 64 | 110105094 | NOC:Industrial Safety Engineering                                  |
| 65 | 110105095 | NOC:Management of Inventory Systems                                |
| 66 | 110105096 | NOC:Selected Topics in Decision Modeling                           |
| 67 | 110105097 | NOC:Ethics in Engineering Practice                                 |
| 68 | 110107093 | NOC:Working Capital Management                                     |
| 69 | 110107094 | NOC:Innovation, Business Models and Entrepreneurship               |
| 70 | 110107095 | NOC:Business Analytics and Data Mining Modeling Using R - Part II  |
| 71 | 110104117 | NOC:Management of Field Sales                                      |
| 72 | 110104118 | NOC:Data Analysis and Decision Making-II                           |
| 73 | 110104119 | NOC:Advanced Green Manufacturing Systems                           |
| 74 | 110105120 | NOC:Managing Change in Organizations                               |
| 75 | 110105121 | NOC:Financial Institutions and Markets                             |
| 76 | 110105122 | NOC:Sales and Distribution Management                              |
| 77 | 110105123 | NOC:Six Sigma                                                      |
| 78 | 110106124 | NOC:Design Thinking - A Primer                                     |
| 79 | 110107112 | NOC:Global Marketing Management                                    |
| 80 | 110107113 | NOC:Marketing Research and Analysis-II                             |
| 81 | 110107114 | NOC:Business Statistics                                            |

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| 82  | 110107115 | NOC:MCDM Techniques Using R                                       |
| 83  | 110107116 | NOC:Manufacturing Strategy                                        |
| 84  | 110101131 | NOC:Financial Accounting                                          |
| 85  | 110101132 | NOC:Cost Accounting                                               |
| 86  | 110101133 | NOC:Game Theory                                                   |
| 87  | 110104125 | NOC:Data Analysis and Decision Making - III                       |
| 88  | 110105137 | NOC:Performance and Reward Management                             |
| 89  | 110105138 | NOC:The Ethical Corporation                                       |
| 90  | 110105139 | NOC:Intellectual Property Rights and Competition Law              |
| 91  | 110105140 | NOC:Patent Search for Engineers and Lawyers                       |
| 92  | 110106134 | NOC:Decision-Making Under Uncertainty                             |
| 93  | 110106135 | NOC:Decision making using financial accounting                    |
| 94  | 110107126 | NOC:Training Of Trainers                                          |
| 95  | 110107127 | NOC:Management Accounting                                         |
| 96  | 110107128 | NOC:Financial Derivatives and Risk Management                     |
| 97  | 110107129 | NOC:Business Analytics and Text Mining Modeling Using Python      |
| 98  | 110107130 | NOC:Toyota Production System                                      |
| 99  | 110105144 | NOC:Behavioral and Personal Finance                               |
| 100 | 110106141 | NOC:Entrepreneurship                                              |
| 101 | 110107144 | NOC:Financial Management for Managers                             |
| 102 | 110108141 | NOC:Integrated Marketing Management                               |
| 103 | 110101141 | NOC:Introduction to Stochastic Processes                          |
| 104 | 110101142 | NOC:Introduction to System Dynamics Modeling                      |
| 105 | 110105143 | NOC:Management of Commercial Banking                              |
| 106 | 110105142 | NOC:Marketing Analytics                                           |
| 107 | 110105141 | NOC:Modelling and Analytics for Supply Chain Management           |
| 108 | 110107141 | NOC:Production and Operation Management (Prof. Rajat Agarwal)     |
| 109 | 110107143 | NOC:Production and Operation Management (Prof. Santosh Rangnekar) |
| 110 | 110107142 | NOC:Services Marketing: Integrating People, Technology, Strategy  |

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| 111 | 110105145 | NOC:Customer Relationship Management                                       |
| 112 | 110105147 | NOC:Decision Support System for Managers                                   |
| 113 | 110106147 | NOC:Financial Accounting (IIT Mandi)                                       |
| 114 | 110107145 | NOC:International Business                                                 |
| 115 | 110107147 | NOC:Introduction to Marketing Essentials                                   |
| 116 | 110105148 | NOC:Management Information System                                          |
| 117 | 110106145 | NOC:Organizational Behaviour                                               |
| 118 | 110101146 | NOC:Organization Development and Change in 21st Century                    |
| 119 | 110107146 | NOC:Path Integral Methods in Physics and Finance                           |
| 120 | 110105146 | NOC:Principles of Management (2020)                                        |
| 121 | 110106146 | NOC:The Future of Manufacturing Business: Role of Additive Manufacturing   |
| 122 | 110101149 | NOC:Managerial Economics                                                   |
| 123 | 110101150 | NOC:Quality Control and Improvement with MINITAB                           |
| 124 | 110106150 | NOC:Technology Forecasting for Strategic Decision Making – An Introduction |
| 125 | 110106151 | NOC:Leadership for India Inc: Practical Concepts and Constructs            |
| 126 | 110107150 | NOC:Principles of Management (2021)                                        |
| 127 | 110107151 | NOC:Organization Theory-Structure and Design                               |
| 128 | 110107152 | NOC:Talent Acquisition and Management                                      |
| 129 | 110101153 | NOC:Business and Sustainable Development                                   |
| 130 | 110105153 | NOC:Applied Econometrics                                                   |
| 131 | 110105154 | NOC:Organizational Behaviour - II                                          |
| 132 | 110105155 | NOC:Automation in Production Systems and Management                        |
| 133 | 110105156 | NOC:Corporate Finance                                                      |
| 134 | 110107153 | NOC:Econometric Modelling                                                  |
| 135 | 110107154 | NOC:Security Analysis and Portfolio Management                             |
| 136 | 110105157 | NOC:International Marketing                                                |
| 137 | 110105158 | NOC:Retail Management                                                      |
| 138 | 110105159 | NOC:Business Law for Managers                                              |
| 139 | 110105160 | NOC:Safety and Risk Analytics                                              |

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| 140 | 110106157 | NOC:Strategy and Technology: A Practical Primer                          |
| 141 | 110107157 | NOC:Decision Making with Spreadsheet                                     |
| 142 | 110107158 | NOC:Integrated Marketing Communication                                   |
| 143 | 110107159 | NOC:Leadership and Team Effectiveness                                    |
| 144 | 110105161 | NOC:Strategic Management for Competitive Advantage                       |
| 145 | 110105162 | NOC:Human Factors Engineering                                            |
| 146 | 110107161 | NOC:Product and Brand Management                                         |
| 147 | 110107162 | NOC:Quantitative Investment Management                                   |
| 148 | 110107163 | NOC:Strategic Sales Management                                           |
| 149 | 110108161 | NOC:Strategic Management - The Competitive Edge                          |
| 150 | 110101164 | NOC:Advances in Strategic Human Resource Management                      |
| 151 | 110101165 | NOC:Yoga and Positive Psychology for Managing Career and Life            |
| 152 | 110104164 | NOC:Artificial Intelligence (AI) for Investments                         |
| 153 | 110105164 | NOC:Organizational Design Change and Transformation                      |
| 154 | 110105165 | NOC:Mergers, Acquisitions and Corporate Restructuring                    |
| 155 | 110105166 | NOC:Invest Management                                                    |
| 156 | 110106164 | NOC:Business Development: From Start to Scale                            |
| 157 | 110106165 | NOC:Applied Econometrics                                                 |
| 158 | 110101167 | NOC:Business Fundamentals for Entrepreneurs (Part 1: Internal Operation) |
| 159 | 110104167 | NOC:Brand Management                                                     |
| 160 | 110104168 | NOC:Advanced Business Decision Support Systems                           |
| 161 | 110104169 | NOC:Advanced Algorithmic Trading and Portfolio Management                |
| 162 | 110105167 | NOC:Project Management: Planning, Execution, Evaluation and Control      |
| 163 | 110105168 | NOC:Commodity Derivatives and Risk Management (2023)                     |
| 164 | 110106167 | NOC:Working in Contemporary Teams                                        |
| 165 | 110107167 | NOC:Retail Marketing Strategy                                            |
| 166 | 110107168 | NOC:Business to Business Marketing                                       |
| 167 | 110107169 | NOC:Designing Work Organization                                          |
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| <b>Mathematics (169 Video Courses)</b> |           |                                                                                              |
|----------------------------------------|-----------|----------------------------------------------------------------------------------------------|
| 1                                      | 111101003 | Elementary Numerical Analysis                                                                |
| 2                                      | 111101005 | Measure and Integration                                                                      |
| 3                                      | 111101080 | Mathematics in India - From Vedic Period to Modern Times                                     |
| 4                                      | 111102014 | Stochastic Processes                                                                         |
| 5                                      | 111103016 | Formal Languages and Automata Theory                                                         |
| 6                                      | 111103070 | Complex Analysis                                                                             |
| 7                                      | 111104024 | Applied Multivariate Analysis                                                                |
| 8                                      | 111104025 | Calculus of Variations and Integral Equations                                                |
| 9                                      | 111104027 | Linear programming and Extensions                                                            |
| 10                                     | 111104068 | Convex Optimization                                                                          |
| 11                                     | 111104071 | Foundations of Optimization                                                                  |
| 12                                     | 111104079 | Probability Theory and Applications                                                          |
| 13                                     | 111105035 | Advanced Engineering Mathematics                                                             |
| 14                                     | 111105037 | Functional Analysis                                                                          |
| 15                                     | 111105038 | Numerical methods of Ordinary and Partial Differential Equations                             |
| 16                                     | 111105039 | Optimization                                                                                 |
| 17                                     | 111105041 | Probability and Statistics                                                                   |
| 18                                     | 111105042 | Regression Analysis                                                                          |
| 19                                     | 111105043 | Statistical Inference                                                                        |
| 20                                     | 111105069 | A Basic Course in Real Analysis                                                              |
| 21                                     | 111106044 | An Introduction to Riemann Surfaces and Algebraic Curves: Complex 1-Tori and Elliptic Curves |
| 22                                     | 111106051 | Linear Algebra                                                                               |
| 23                                     | 111106052 | Mathematical Logic                                                                           |
| 24                                     | 111106053 | Real Analysis                                                                                |
| 25                                     | 111106083 | NOC:An invitation to mathematics                                                             |
| 26                                     | 111107058 | Discrete Mathematics                                                                         |
| 27                                     | 111108066 | Advanced Matrix Theory and Linear Algebra for Engineers                                      |

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| 28 | 111108081 | Ordinary Differential Equations and Applications                                                                                                                            |
| 29 | 111104085 | NOC:Basic Calculus for Engineers, Scientists and Economists                                                                                                                 |
| 30 | 111105077 | Statistical Methods for Scientists and Engineers                                                                                                                            |
| 31 | 111106084 | Advanced Complex Analysis - Part 1: Zeros of Analytic Functions, Analytic continuation, Monodromy, Hyperbolic Geometry                                                      |
| 32 | 111106086 | NOC:Discrete Mathematics                                                                                                                                                    |
| 33 | 111105091 | NOC:Applied Multivariate Statistical Modeling                                                                                                                               |
| 34 | 111105090 | NOC:Probability and Statistics                                                                                                                                              |
| 35 | 111104089 | NOC:Probability and Stochastics for finance                                                                                                                                 |
| 36 | 111106082 | Dynamic Data Assimilation: An Introduction                                                                                                                                  |
| 37 | 111106094 | Advanced Complex Analysis - Part 2: Singularity at Infinity, Infinity as a Value, Compact Spaces of Meromorphic Functions for the Spherical Metric and Spherical Derivative |
| 38 | 111105093 | NOC:Partial Differential Equations (PDE) for Engineers: Solution by Separation of Variables                                                                                 |
| 39 | 111104092 | NOC:Differential Calculus in Several Variables                                                                                                                              |
| 40 | 111102096 | NOC:Stochastic Processes - 1                                                                                                                                                |
| 41 | 111104095 | NOC:Curves and Surfaces                                                                                                                                                     |
| 42 | 111106097 | Basic Algebraic Geometry : Varieties, Morphisms, Local Rings, Function Fields and Nonsingularity                                                                            |
| 43 | 111106098 | NOC:Introduction to Commutative Algebra                                                                                                                                     |
| 44 | 111108098 | NOC:Linear Algebra                                                                                                                                                          |
| 45 | 111104098 | NOC:Linear Regression Analysis and Forecasting                                                                                                                              |
| 46 | 111102098 | NOC:Stochastic Processes                                                                                                                                                    |
| 47 | 111107098 | NOC:Mathematical Methods and its Applications                                                                                                                               |
| 48 | 111105098 | NOC:Introductory Course in Real Analysis                                                                                                                                    |
| 49 | 111105099 | NOC:Modeling Transport Phenomena of Microparticles                                                                                                                          |
| 50 | 111106100 | NOC:Differential Equations                                                                                                                                                  |
| 51 | 111107103 | NOC:Integral Equations, Calculus of Variations and its Applications                                                                                                         |
| 52 | 111107104 | NOC:Nonlinear Programming                                                                                                                                                   |
| 53 | 111107105 | NOC:Numerical Methods                                                                                                                                                       |
| 54 | 111101100 | NOC:Measure Theory                                                                                                                                                          |

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| 55 | 111106101 | NOC:Numerical Analysis                                                |
| 56 | 111104100 | NOC:Introduction to R Software                                        |
| 57 | 111105100 | NOC:Constrained and Unconstrained Optimization                        |
| 58 | 111106102 | NOC:Graph Theory                                                      |
| 59 | 111107107 | NOC:Numerical Methods: Finite Difference Approach                     |
| 60 | 111101109 | NOC:Calculus for Economics,Commerce and Management                    |
| 61 | 111107108 | NOC:Multivariable Calculus                                            |
| 62 | 111107106 | NOC:Numerical Linear Algebra                                          |
| 63 | 111102110 | NOC:Chaotic Dynamical Systems                                         |
| 64 | 111102111 | NOC:Introduction to Probability Theory and Stochastic Processes       |
| 65 | 111102112 | NOC:Statistical Inference                                             |
| 66 | 111105111 | NOC:Matrix Solver                                                     |
| 67 | 111105112 | NOC:Introduction to Abstract and Linear Algebra                       |
| 68 | 111106111 | NOC:Transform Techniques for Engineers                                |
| 69 | 111106112 | NOC:Introduction to Probability and Statistics                        |
| 70 | 111106113 | NOC:Introduction to Abstract Group Theory                             |
| 71 | 111106114 | NOC:Groups: Motion, Symmetry and Puzzles                              |
| 72 | 111107111 | NOC:Ordinary and Partial Differential Equations and Applications      |
| 73 | 111107112 | NOC:Matrix Analysis with Applications                                 |
| 74 | 111107113 | NOC:Mathematical Modelling: Analysis and Applications                 |
| 75 | 111101115 | NOC:Basic Linear Algebra                                              |
| 76 | 111101116 | NOC:Commutative Algebra                                               |
| 77 | 111101117 | NOC:Galois Theory                                                     |
| 78 | 111104120 | NOC:Descriptive Statistics with R Software                            |
| 79 | 111105121 | NOC:Engineering Mathematics-I                                         |
| 80 | 111105122 | NOC:Integral and Vector Calculus                                      |
| 81 | 111105123 | NOC:Transform Calculus and its applications in Differential Equations |
| 82 | 111107118 | NOC:Dynamical System and Control                                      |
| 83 | 111107119 | NOC:Advanced Engineering Mathematics                                  |

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| 84  | 111105124 | NOC:Statistical Inference (2019)                               |
| 85  | 111102129 | NOC:Integral Transforms and their Applications                 |
| 86  | 111102130 | NOC:Introduction to Fuzzy Set Theory, Arithmetic and Logic     |
| 87  | 111102133 | Introduction to Methods of Applied Mathematics                 |
| 88  | 111103126 | NOC:Mathematical Finance                                       |
| 89  | 111104125 | NOC:Calculus of Several Real Variables                         |
| 90  | 111105132 | NOC:Mathematical Methods for Boundary Value Problems           |
| 91  | 111106131 | NOC:Introduction To Rings And Fields                           |
| 92  | 111107127 | NOC:Higher Engineering Mathematics                             |
| 93  | 111107128 | NOC:Operations Research                                        |
| 94  | 111102134 | NOC:Advanced Probability Theory                                |
| 95  | 111108134 | NOC:An Introduction to Smooth Manifolds                        |
| 96  | 111101134 | NOC:Basic Real Analysis                                        |
| 97  | 111105134 | NOC:Engineering Mathematics - II                               |
| 98  | 111108136 | NOC:Introduction to Algebraic Geometry and Commutative Algebra |
| 99  | 111106135 | NOC:Linear Algebra (Prof. Pranav Haridas)                      |
| 100 | 111108135 | NOC:Measure Theory (Prof. E. K. Narayanan)                     |
| 101 | 111106134 | NOC:Probabilistic Methods in PDE                               |
| 102 | 111101137 | NOC:A Basic Course in Number Theory                            |
| 103 | 111106137 | NOC:Algebra - I                                                |
| 104 | 111106141 | NOC:Complex Analysis                                           |
| 105 | 111106138 | NOC:Computational Commutative Algebra                          |
| 106 | 111104138 | NOC:Computational Number Theory and Algebra                    |
| 107 | 111107137 | NOC:Essential Mathematics for Machine Learning                 |
| 108 | 111106139 | NOC:Laplace Transform                                          |
| 109 | 111104137 | NOC:Linear Algebra (Prof. A.K. Lal)                            |
| 110 | 111103137 | NOC:Mathematical Portfolio Theory                              |
| 111 | 111106140 | NOC:Measure Theory (Prof. Indrava Roy)                         |
| 112 | 111102143 | NOC:Non-parametric Statistical Inference                       |

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| 113 | 111106142 | NOC:Real Analysis - I                                                                            |
| 114 | 111102137 | NOC:Scientific Computing using Matlab                                                            |
| 115 | 111101144 | NOC:Introduction to Algebraic Topology - Part I                                                  |
| 116 | 111104144 | NOC:Basic Calculus 1 and 2                                                                       |
| 117 | 111104145 | NOC:Advanced Partial Differential Equations                                                      |
| 118 | 111104146 | NOC:Essentials of Data Science With R Software 1: Probability and Statistical Inference          |
| 119 | 111104147 | NOC:Essentials of Data Science With R Software 2: Sampling Theory and Linear Regression Analysis |
| 120 | 111106144 | NOC:Variational Calculus and its applications in Control Theory and Nanomechanics                |
| 121 | 111106145 | NOC:Introduction to Galois Theory                                                                |
| 122 | 111106146 | NOC:Basic Calculus 1                                                                             |
| 123 | 111106147 | NOC:Functional Analysis                                                                          |
| 124 | 111106148 | NOC:Mathematical Methods in Physics 1                                                            |
| 125 | 111106149 | NOC:Computational Mathematics with SageMath                                                      |
| 126 | 111106150 | NOC:Introduction to Probability (with examples using R)                                          |
| 127 | 111106151 | NOC:Algebra-II                                                                                   |
| 128 | 111108144 | NOC:First Course on Partial Differential Equations - I                                           |
| 129 | 111101152 | NOC:Introduction to Algebraic Topology - Part II                                                 |
| 130 | 111101153 | NOC:Partial Differential Equations                                                               |
| 131 | 111102152 | NOC:Matrix Computation and its Applications                                                      |
| 132 | 111104152 | NOC:Measure Theoretic Probability 1                                                              |
| 133 | 111106152 | NOC:Mathematical Methods in Physics 2                                                            |
| 134 | 111106153 | NOC:Real Analysis - II                                                                           |
| 135 | 111106154 | NOC:Sobolev Spaces and Partial Differential Equations                                            |
| 136 | 111106155 | NOC:Combinatorics                                                                                |
| 137 | 111106156 | NOC:Our Mathematical Senses                                                                      |
| 138 | 111108152 | NOC:First Course on Partial Differential Equations - II                                          |
| 139 | 111108157 | Matrix Theory                                                                                    |
| 140 | 111101158 | NOC:An Introduction to Point-Set-Topology - Part I                                               |

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| 141 | 111103158 | NOC:Discrete-time Markov Chains and Poission Processes                                 |
| 142 | 111103159 | NOC:Introduction to Queueing Theory                                                    |
| 143 | 111106158 | NOC:Algebraic Combinatorics                                                            |
| 144 | 111106159 | NOC:An Invitation to Topology                                                          |
| 145 | 111101160 | NOC:An Introduction to Point-Set-Topology - Part II                                    |
| 146 | 111102160 | NOC:Introduction to Probability Theory and Statistics                                  |
| 147 | 111104160 | NOC:Foundations of R Software                                                          |
| 148 | 111104161 | NOC:Foundations of R Software (In Hindi)                                               |
| 149 | 111105160 | NOC:Advanced Calculus For Engineers                                                    |
| 150 | 111105161 | NOC:Rings and Modules                                                                  |
| 151 | 111106160 | NOC:Operator Theory                                                                    |
| 152 | 111106161 | NOC:Measure and Integration                                                            |
| 153 | 111106162 | NOC:Approximate Reasoning using Fuzzy Set Theory                                       |
| 154 | 111106163 | NOC:Probability-II with Examples Using R                                               |
| 155 | 111101164 | NOC:Fourier Analysis and its Applications                                              |
| 156 | 111101165 | NOC:Numerical Analysis (2023)                                                          |
| 157 | 111104164 | NOC:An Introduction to Hyperbolic Geometry                                             |
| 158 | 111104165 | NOC:A Primer to Mathematical Optimization                                              |
| 159 | 111105164 | NOC:Advanced Computational Techniques                                                  |
| 160 | 111105165 | NOC:Applied Linear Algebra in AI and ML                                                |
| 161 | 111105167 | NOC:Advanced Engineering Mathematics                                                   |
| 162 | 111106164 | NOC:Predictive Analytics - Regression and Classification                               |
| 163 | 111107164 | NOC:Advanced Linear Algebra                                                            |
| 164 | 111108164 | NOC:C* Algebras and Spectral Theorem                                                   |
| 165 | 111101168 | NOC:Point Set Topology                                                                 |
| 166 | 111104168 | NOC:Measure Theoretic Probability 2                                                    |
| 167 | 111105169 | NOC:Essentials of Topology                                                             |
| 168 | 111106168 | NOC:Introduction to Algebraic Geometry                                                 |
| 169 | 111108168 | NOC:Advanced Partial Differential Equations (Part I: Distributions and Sobolev Spaces) |

| <b>Mechanical Engineering (276 Video Courses)</b> |           |                                                             |
|---------------------------------------------------|-----------|-------------------------------------------------------------|
| 1                                                 | 112101002 | Convective Heat and Mass Transfer                           |
| 2                                                 | 112101004 | Cryogenic Engineering                                       |
| 3                                                 | 112101095 | Advanced Strength of Materials                              |
| 4                                                 | 112101097 | Heat and Mass Transfer                                      |
| 5                                                 | 112101099 | Robotics                                                    |
| 6                                                 | 112102014 | Tribology                                                   |
| 7                                                 | 112102101 | Computer Aided Design and Manufacturing                     |
| 8                                                 | 112102106 | Project and Production Management                           |
| 9                                                 | 112103023 | Nonlinear Vibration                                         |
| 10                                                | 112103025 | Theory and Practice of Rotor Dynamics                       |
| 11                                                | 112103108 | Engineering Mechanics                                       |
| 12                                                | 112103112 | Mechanical Vibrations                                       |
| 13                                                | 112104026 | Acoustics                                                   |
| 14                                                | 112104028 | Advanced Machining Processes                                |
| 15                                                | 112104029 | Biomechanical systems                                       |
| 16                                                | 112104031 | Computer Aided Engineering Design                           |
| 17                                                | 112104035 | Mathematical Methods in Engineering and Science             |
| 18                                                | 112104114 | Dynamics of Machines                                        |
| 19                                                | 112104115 | Finite Element Method                                       |
| 20                                                | 112104121 | Kinematics of Machines                                      |
| 21                                                | 112104162 | Advanced manufacturing process for micro system fabrication |
| 22                                                | 112104172 | Engineering Drawing                                         |
| 23                                                | 112104181 | NOC:BioMEMS and Microsystems                                |
| 24                                                | 112105045 | Computational Fluid Dynamics (Prof. S. Chakraborty)         |
| 25                                                | 112105048 | Machinery fault diagnosis and signal processing             |
| 26                                                | 112105051 | Solar Energy Technology                                     |

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| 27 | 112105053 | Technology of Surface Coating                         |
| 28 | 112105055 | Vibration of Structures                               |
| 29 | 112105123 | Basic Thermodynamics                                  |
| 30 | 112105124 | Design of Machine Elements I                          |
| 31 | 112105126 | Manufacturing Processes II                            |
| 32 | 112105128 | Refrigeration and Air Conditioning                    |
| 33 | 112105171 | Fluid Mechanics                                       |
| 34 | 112105182 | Introduction to Fluid Machines and Compressible Flow  |
| 35 | 112105183 | Introduction to Fluid Mechanics and Fluid Engineering |
| 36 | 112106056 | Advanced Gas Dynamics                                 |
| 37 | 112106064 | Design and Optimization of Energy systems             |
| 38 | 112106065 | Engineering Fracture Mechanics                        |
| 39 | 112106068 | Experimental Stress Analysis                          |
| 40 | 112106073 | Rocket Propulsion                                     |
| 41 | 112106130 | Advanced Finite Elements Analysis                     |
| 42 | 112106131 | Advanced Operations Research                          |
| 43 | 112106134 | Fundamentals of Operations Research                   |
| 44 | 112106135 | Introduction to Finite Element Method                 |
| 45 | 112106138 | Mechanical Measurements and Metrology                 |
| 46 | 112106140 | Principles of Mechanical Measurements                 |
| 47 | 112106154 | Spray Theory and Applications (Repurposed)            |
| 48 | 112106155 | Conduction And Radiation                              |
| 49 | 112106166 | Gas Dynamics and Propulsion                           |
| 50 | 112106169 | Microfluidics                                         |
| 51 | 112106170 | Convective Heat Transfer                              |
| 52 | 112106177 | Introduction to Explosions and Explosion Safety       |
| 53 | 112106180 | NOC:Engineering Mechanics Statics and Dynamics        |
| 54 | 112107078 | Advanced Manufacturing Processes                      |
| 55 | 112107079 | Computational Fluid Dynamics (Dr. K.M. Singh)         |

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| 56 | 112107086 | Processing of non metals                                 |
| 57 | 112107087 | Vibration control                                        |
| 58 | 112107089 | Welding Engineering                                      |
| 59 | 112107143 | Industrial Engineering                                   |
| 60 | 112107145 | Manufacturing Processes I                                |
| 61 | 112107147 | Strength of Materials                                    |
| 62 | 112108092 | Micro and Smart Systems                                  |
| 63 | 112105187 | Micro fluidics                                           |
| 64 | 112106186 | NOC:Foundation of Computational Fluid Dynamics           |
| 65 | 112104188 | NOC:Manufacturing Systems Technology                     |
| 66 | 112104189 | NOC:Manufacturing Systems Technology - Part II           |
| 67 | 112105047 | Fundamentals of Industrial Oil Hydraulics and Pneumatics |
| 68 | 112105192 | NOC:Conduction and Convection Heat Transfer              |
| 69 | 112105197 | NOC:Vibrations of Structures                             |
| 70 | 112106190 | NOC:Introduction to Boundary Layers                      |
| 71 | 112104193 | NOC:Basics of Finite Element Analysis                    |
| 72 | 112106196 | NOC:Fundamentals of Gas Dynamics                         |
| 73 | 112104194 | NOC:Basics of Noise and Its Measurements                 |
| 74 | 112104195 | NOC:Manufacturing Process Technology - Part I            |
| 75 | 112106198 | NOC:Experimental Stress Analysis:An Overview             |
| 76 | 112108201 | NOC:Variational Methods in Mechanics                     |
| 77 | 112105206 | NOC:Fluid Machines                                       |
| 78 | 112104203 | NOC:Nature and Property of Materials                     |
| 79 | 112104204 | NOC:Manufacturing Process Technology - II                |
| 80 | 112104205 | NOC:Basics of Finite Element Analysis - II               |
| 81 | 112107209 | NOC:Engineering Economic Analysis                        |
| 82 | 112107208 | NOC:Refrigeration and Air-Conditioning                   |
| 83 | 112107207 | NOC:Two Phase Flow and Heat Transfer                     |
| 84 | 112106200 | NOC:Fluid Dynamics and Turbomachines                     |

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| 85  | 112103202 | NOC:Advanced Machining Processes                                                                             |
| 86  | 112105211 | NOC:Computer Numerical Control (CNC) of Machine Tools and Processes                                          |
| 87  | 112106179 | Metrology                                                                                                    |
| 88  | 112107083 | Metal Casting                                                                                                |
| 89  | 112108212 | NOC:Heat Transfer and Combustion in Multiphase Systems                                                       |
| 90  | 112108211 | NOC:Compliant Mechanisms: Principles and Design                                                              |
| 91  | 112107212 | NOC:Introduction to Mechanical Vibration                                                                     |
| 92  | 112107216 | NOC:Steam and Gas Power Systems                                                                              |
| 93  | 112107215 | NOC:Principles of Casting Technology                                                                         |
| 94  | 112107214 | NOC:Modelling and Simulation of Dynamic Systems                                                              |
| 95  | 112107213 | NOC:Joining Technologies of Metals                                                                           |
| 96  | 112105212 | NOC:Non Traditional Abrasive Machining Processes - Ultrasonic, Abrasive Jet and Abrasive Water Jet Machining |
| 97  | 112107217 | NOC:Product Design and Development                                                                           |
| 98  | 112107211 | NOC:Convective Heat Transfer                                                                                 |
| 99  | 112105218 | NOC:Introduction to Fluid Mechanics                                                                          |
| 100 | 112104212 | NOC:Fundamentals of Acoustics                                                                                |
| 101 | 112104211 | NOC:Principles of Vibration Control                                                                          |
| 102 | 112104219 | NOC:Heat Treatment and Surface Hardening - II                                                                |
| 103 | 112104220 | NOC:Phase Transformation in Materials                                                                        |
| 104 | 112107219 | NOC:Fundamentals of Manufacturing Processes                                                                  |
| 105 | 112106222 | NOC:Micro and Nano Scale Energy Transport                                                                    |
| 106 | 112104221 | NOC:Manufacturing of Composites                                                                              |
| 107 | 112104222 | NOC:Applied Ergonomics                                                                                       |
| 108 | 112106223 | NOC:Electron Diffraction and Imaging                                                                         |
| 109 | 112106225 | NOC:Acoustic and Noise Control                                                                               |
| 110 | 112104225 | NOC:Sustainability through Green Manufacturing Systems: An Applied Approach                                  |
| 111 | 112107220 | NOC:Modelling and Simulation of Discrete Event System                                                        |
| 112 | 112107221 | NOC:Processing of Polymers and Polymer Composites                                                            |

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| 113 | 112106226 | NOC:Steel Quality: Role of Secondary Refining and Continuous Casting |
| 114 | 112106227 | NOC:X-ray Crystallography and Diffraction                            |
| 115 | 112104227 | NOC:Noise Management and Control                                     |
| 116 | 112105219 | NOC:Spur and Helical Gear Cutting                                    |
| 117 | 112105220 | NOC:Laws of Thermodynamics                                           |
| 118 | 112105221 | NOC:Energy Conservation and Waste Heat Recovery                      |
| 119 | 112105233 | NOC:Metal Cutting and Machine Tools                                  |
| 120 | 112104230 | NOC:Product Design and Manufacturing                                 |
| 121 | 112106237 | NOC:Transport Phenomena in Materials                                 |
| 122 | 112105234 | NOC:Gear and Gear Unit Design: Theory and Practice                   |
| 123 | 112105235 | NOC:Traditional and Non-Traditional Optimization Tools               |
| 124 | 112104228 | NOC:Design Practice                                                  |
| 125 | 112105236 | NOC:Mechanism and Robot Kinematics                                   |
| 126 | 112103244 | NOC:Advances in Welding and Joining Technologies                     |
| 127 | 112107240 | NOC:Automatic Control                                                |
| 128 | 112107241 | NOC:Failure Analysis and Prevention                                  |
| 129 | 112107242 | NOC:Mechanical Measurement System                                    |
| 130 | 112103245 | NOC:Introduction to Machining and Machining Fluids                   |
| 131 | 112107238 | NOC:Operations Management                                            |
| 132 | 112104229 | NOC:Introduction To Composites                                       |
| 133 | 112108246 | NOC:Convective Heat Transfer (2018)                                  |
| 134 | 112103243 | NOC:Fundamentals of Nuclear Power Generation                         |
| 135 | 112105232 | NOC:Machinery Fault Diagnosis and Signal Processing                  |
| 136 | 112105231 | NOC:Introduction to Mechanical Micro Machining                       |
| 137 | 112107239 | NOC:Theory of Production Processes                                   |
| 138 | 112106247 | NOC:Experimental Stress Analysis: An Overview                        |
| 139 | 112102248 | NOC:RAC Product Design                                               |
| 140 | 112103248 | NOC:Mechanics of Machining                                           |
| 141 | 112103249 | NOC:Principle of Hydraulic Machines and System Design                |

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| 142 | 112103250 | NOC:Introduction to Abrasive Machining and Finishing Processes                       |
| 143 | 112103251 | NOC:Theory of Rectangular Plates - Part I                                            |
| 144 | 112104248 | NOC:Phase Equilibria in Materials-Nature and Properties of Materials-II              |
| 145 | 112104249 | NOC:Advanced Composites                                                              |
| 146 | 112104250 | NOC:Engineering Metrology                                                            |
| 147 | 112104251 | NOC:Smart Materials and Intelligent System Design                                    |
| 148 | 112104252 | NOC:Design Practice-II                                                               |
| 149 | 112105248 | NOC:Heat Exchangers: Fundamentals and Design Analysis                                |
| 150 | 112105249 | NOC:Robotics                                                                         |
| 151 | 112106248 | NOC:Mechanics of Human Movement                                                      |
| 152 | 112106249 | NOC:Design for Quality, Manufacturing and Assembly                                   |
| 153 | 112106250 | NOC:Surrogates and Approximations in Engineering Design                              |
| 154 | 112107248 | NOC:Fundamentals of Surface Engineering: Mechanisms, Processes and Characterizations |
| 155 | 112107249 | NOC:Work System Design                                                               |
| 156 | 112107250 | NOC:Principles of Metal Forming Technology                                           |
| 157 | 112102255 | NOC:Thermodynamics                                                                   |
| 158 | 112103261 | NOC:Principles of Mechanical Measurement                                             |
| 159 | 112103262 | NOC:IC Engines and Gas Turbines                                                      |
| 160 | 112103263 | NOC:Fundamental of Welding Science and Technology                                    |
| 161 | 112103264 | NOC:Polymer Assisted Abrasive Finishing Processes                                    |
| 162 | 112104265 | NOC:Rapid Manufacturing                                                              |
| 163 | 112105266 | NOC:Concepts of Thermodynamics                                                       |
| 164 | 112105267 | NOC:Electronic Packaging and Manufacturing                                           |
| 165 | 112105268 | NOC:Kinematics of Mechanisms and Machines                                            |
| 166 | 112107256 | NOC:Radiative Heat Transfer                                                          |
| 167 | 112107257 | NOC:Weldability of Metals                                                            |
| 168 | 112107258 | NOC:Manufacturing Guidelines for Product Design                                      |
| 169 | 112107259 | NOC:Inspection and Quality Control in Manufacturing                                  |
| 170 | 112107260 | NOC:Financial Mathematics                                                            |

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| 171 | 112105269 | NOC:Introduction to Fluid Mechanics (2019)                                   |
| 172 | 112106270 | Theory of Mechanism                                                          |
| 173 | 112102284 | NOC:Solid Mechanics                                                          |
| 174 | 112103273 | NOC:Mathematical Modeling of Manufacturing Processes                         |
| 175 | 112103274 | NOC:Two-Phase flow with phase change in conventional and miniature channels  |
| 176 | 112103275 | NOC:Applied Thermodynamics For Engineers                                     |
| 177 | 112103276 | NOC:Fundamentals of Conduction and Radiation                                 |
| 178 | 112103277 | NOC:Steam Power Engineering                                                  |
| 179 | 112103278 | NOC:Dynamic Behaviour of Materials                                           |
| 180 | 112103279 | NOC:Plastic Working of Metallic Materials                                    |
| 181 | 112103280 | NOC:Fundamentals of Artificial Intelligence                                  |
| 182 | 112103281 | NOC:Aircraft Propulsion                                                      |
| 183 | 112104272 | NOC:Turbulent Combustion: Theory and Modelling                               |
| 184 | 112104288 | NOC:Manufacturing Automation                                                 |
| 185 | 112105287 | NOC:Advanced Concepts in Fluid Mechanics                                     |
| 186 | 112106286 | NOC:Engineering Mechanics                                                    |
| 187 | 112107282 | NOC:Product Design Using Value Engineering                                   |
| 188 | 112107283 | NOC:Selection of Nanomaterials for Energy Harvesting and Storage Application |
| 189 | 112108285 | NOC:A Short Lecture Series on Contour Integration in the Complex Plane       |
| 190 | 112105254 | NOC:Computational Fluid Dynamics                                             |
| 191 | 112105271 | NOC:Conduction and Convection Heat Transfer                                  |
| 192 | 112106253 | NOC:Steel Quality: Role of Secondary Refining and Continuous Casting         |
| 193 | 112107290 | NOC:Acoustic Metamaterials                                                   |
| 194 | 112103289 | NOC:Computational Fluid Dynamics for Incompressible Flows                    |
| 195 | 112104289 | NOC:Computer Integrated Manufacturing                                        |
| 196 | 112103290 | NOC:Experimental Methods in Fluid Mechanics                                  |
| 197 | 112106289 | NOC:Foundations of Computational Materials Modelling                         |
| 198 | 112106290 | NOC:Fundamentals of Combustion for Propulsion                                |
| 199 | 112108289 | NOC:Introduction to Soft Matter                                              |

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| 200 | 112104290 | NOC:Machining Science                                                    |
| 201 | 112107291 | NOC:Power Plant Engineering                                              |
| 202 | 112107292 | NOC:Principles of Industrial Engineering                                 |
| 203 | 112107289 | NOC:Robotics and Control: Theory and Practice                            |
| 204 | 112103293 | NOC:Automation in Manufacturing                                          |
| 205 | 112106293 | NOC:Basics of Materials Engineering                                      |
| 206 | 112103296 | NOC:Computational Continuum Mechanics                                    |
| 207 | 112106294 | NOC:Computational Fluid Dynamics using Finite Volume Method              |
| 208 | 112105294 | NOC:Engineering Drawing and Computer Graphics                            |
| 209 | 112103295 | NOC:Finite Element Method: Variational Methods to Computer Programming   |
| 210 | 112104293 | NOC:Foundations of Cognitive Robotics                                    |
| 211 | 112103294 | NOC:Fundamentals of Compressible Flow                                    |
| 212 | 112103297 | NOC:Fundamentals of Convective Heat Transfer                             |
| 213 | 112105293 | NOC:High Performance Computing for Scientists and Engineers              |
| 214 | 112101298 | NOC:Optimization from Fundamentals                                       |
| 215 | 112102298 | NOC:Introduction to Uncertainty Analysis and Experimentation             |
| 216 | 112103298 | NOC:Theory of Composite Shells                                           |
| 217 | 112103299 | NOC:Finite Element Modeling of Welding Processes                         |
| 218 | 112103300 | NOC:Nonlinear Vibration                                                  |
| 219 | 112103301 | NOC:Evolutionary Computation for Single and Multi Objective Optimization |
| 220 | 112103302 | NOC:Viscous Fluid Flow                                                   |
| 221 | 112104298 | NOC:Introduction to Robotics                                             |
| 222 | 112104299 | NOC:Muffler Acoustics - Application to Automotive Exhaust Noise Control  |
| 223 | 112104300 | NOC:Elements of Solar Energy Conversion                                  |
| 224 | 112104301 | NOC:Manufacturing Processes - Casting and Joining                        |
| 225 | 112104302 | NOC:Computational Fluid Dynamics and Heat Transfer                       |
| 226 | 112105299 | NOC:Tools in Scientific Computing                                        |
| 227 | 112106298 | NOC:Wheeled Mobile Robots                                                |
| 228 | 112106299 | NOC:Fundamentals of Combustion                                           |

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| 229 | 112106300 | NOC:Oil Hydraulics and Pneumatics                                            |
| 230 | 112107298 | NOC:Mechatronics                                                             |
| 231 | 112108298 | NOC:Robotics: Basics and Selected Advanced Concepts                          |
| 232 | 112106303 | Introduction to Turbomachines                                                |
| 233 | 112101304 | NOC:Design of Mechatronic Systems                                            |
| 234 | 112102304 | NOC:Engineering Graphics and Design                                          |
| 235 | 112103305 | NOC:Welding Application Technology                                           |
| 236 | 112103306 | NOC:Fundamentals of Additive Manufacturing Technologies                      |
| 237 | 112103307 | NOC:Applied Thermodynamics                                                   |
| 238 | 112104304 | NOC:Production Technology: Theory and Practice                               |
| 239 | 112104305 | NOC:Introduction to Turbomachinery                                           |
| 240 | 112105304 | NOC:Advanced Dynamics                                                        |
| 241 | 112105305 | NOC:Biomechanics of Joints and Orthopaedic Implants                          |
| 242 | 112105306 | NOC:Elements of Metal Cutting, Machine tools, Gear Cutting and CNC Machining |
| 243 | 112106304 | NOC:Mechanics and Control of Robotic Manipulators                            |
| 244 | 112103308 | NOC:Mechanics of Fiber Reinforced Polymer Composite Structures               |
| 245 | 112104308 | NOC:Robot Motion Planning                                                    |
| 246 | 112105308 | NOC:Finite Element Method                                                    |
| 247 | 112108308 | NOC:Sound and Structural Vibration                                           |
| 248 | 112106309 | Inverse Methods in Heat Transfer                                             |
| 249 | 112106310 | Engineering Thermodynamics (2022)                                            |
| 250 | 112106311 | Applied Mechanics - Fluid Mechanics Laboratory                               |
| 251 | 112101312 | NOC:Nonlinear Adaptive Control                                               |
| 252 | 112103312 | NOC:Laser Based Manufacturing                                                |
| 253 | 112103313 | NOC:Advanced Thermodynamics and Combustion                                   |
| 254 | 112104312 | NOC:Metal Additive Manufacturing                                             |
| 255 | 112104313 | NOC:Conduction and Convection: Fundamentals and Applications                 |
| 256 | 112106312 | NOC:Interfacial Fluid Mechanics                                              |
| 257 | 112106314 | Applied Thermodynamics                                                       |

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| 258                                                       | 112108312 | NOC:Vibrations of Plates and Shells                     |
| 259                                                       | 112108313 | NOC:Dynamics and Control of Mechanical Systems          |
| 260                                                       | 112102316 | NOC:Ideal Fluid Flows using Complex Analysis            |
| 261                                                       | 112103316 | NOC:Thermal Engineering: Basic and Applied              |
| 262                                                       | 112104316 | NOC:Advanced Robotics                                   |
| 263                                                       | 112105316 | NOC:Product Engineering and Design Thinking             |
| 264                                                       | 112106316 | NOC:Inverse Methods in Heat Transfer                    |
| 265                                                       | 112108316 | NOC:Optical Methods for Solid and Fluid Mechanics       |
| 266                                                       | 112108317 | NOC:Statistical Thermodynamics for Engineers            |
| 267                                                       | 112102318 | NOC:Experimental Modal Analysis                         |
| 268                                                       | 112102319 | NOC:Mechanical Behavior of Polymers and Composites      |
| 269                                                       | 112104318 | NOC:Applied Numerical Methods                           |
| 270                                                       | 112104319 | NOC:Social Innovation in Industry 4.0                   |
| 271                                                       | 112105318 | NOC:Microfluidics and Nanofluidics                      |
| 272                                                       | 112105319 | NOC:Industrial Robotics: Theories for Implementation    |
| 273                                                       | 112106318 | NOC:Sustainable Energy Technology                       |
| 274                                                       | 112106319 | NOC:Strength of Materials - IITM                        |
| 275                                                       | 112106320 | NOC:Engineering Thermodynamics                          |
| 276                                                       | 112106321 | NOC:Theory of Fire Propagation (Fire Dynamics)          |
|                                                           |           |                                                         |
| <b>Metallurgy and Material Science (87 Video Courses)</b> |           |                                                         |
|                                                           |           |                                                         |
| 1                                                         | 113104006 | Electroceramics                                         |
| 2                                                         | 113104008 | Fuels Refractory and Furnaces                           |
| 3                                                         | 113104009 | Introduction to Biomaterials                            |
| 4                                                         | 113104010 | Materials and Energy balance in Metallurgical Processes |
| 5                                                         | 113104012 | Optoelectronic Materials and Devices                    |
| 6                                                         | 113104013 | Steel Making                                            |
| 7                                                         | 113104014 | Structure of Materials                                  |

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| 8  | 113104061 | Environmental Degradation of Materials                                                  |
| 9  | 113105015 | Advanced ceramics for strategic applications                                            |
| 10 | 113105021 | Non-ferrous Extractive Metallurgy                                                       |
| 11 | 113105024 | Principles of Physical Metallurgy                                                       |
| 12 | 113105025 | Processing of Semiconducting Materials                                                  |
| 13 | 113105028 | Science and Technology of Polymers                                                      |
| 14 | 113105057 | Advanced Materials and Processes                                                        |
| 15 | 113106031 | Advanced Metallurgical Thermodynamics                                                   |
| 16 | 113106039 | Physics of Materials                                                                    |
| 17 | 113106062 | Electronic Materials, Devices and Fabrication                                           |
| 18 | 113106065 | NOC:Fundamentals of Electronic Materials and Devices                                    |
| 19 | 113106066 | NOC:Introduction to Reciprocal Space and its use in Solids                              |
| 20 | 113106067 | NOC:Analysis and Modeling of Welding                                                    |
| 21 | 113106064 | NOC:Fundamentals of optical and scanning electron microscopy                            |
| 22 | 113104068 | NOC:Phase Diagrams in Materials Science and Engineering                                 |
| 23 | 113104004 | Advanced Characterization Techniques                                                    |
| 24 | 113106034 | Materials Characterization                                                              |
| 25 | 113108071 | NOC:Biomaterials for Bone Tissue Engineering Applications                               |
| 26 | 113104073 | NOC:Fundamentals of Material Processing - I                                             |
| 27 | 113104074 | NOC:Heat Treatment and Surface Hardening - I                                            |
| 28 | 113101072 | NOC:Phase Field Modelling: The Materials Science, Mathematics and Computational Aspects |
| 29 | 113103072 | NOC:Introduction to Crystal Elasticity and Crystal Plasticity                           |
| 30 | 113106070 | NOC:Theory and Practice of Non Destructive Testing                                      |
| 31 | 113107075 | NOC:Surface Engineering of Nanomaterials                                                |
| 32 | 113106075 | NOC:Defects in Materials                                                                |
| 33 | 113104075 | NOC:Fundamentals of Material Processing - Part 2                                        |
| 34 | 113108079 | NOC:Iron Making                                                                         |
| 35 | 113102080 | NOC:Introduction to Materials Science and Engineering                                   |
| 36 | 113107078 | NOC:Material Science and Engineering                                                    |

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| 37 | 113105077 | NOC:Principles of Polymer Synthesis                                        |
| 38 | 113104076 | NOC:Nature and Properties Of Materials - An Introductory Course            |
| 39 | 113104081 | NOC:Defects in Crystalline Solids - Part I                                 |
| 40 | 113104082 | NOC:Corrosion - Part I                                                     |
| 41 | 113105081 | NOC:Advanced Materials and Processes                                       |
| 42 | 113106081 | NOC:Elementary Stereology for Quantitative Metallography                   |
| 43 | 113106082 | NOC:Welding of Advanced High Strength Steels for Automotive Applications   |
| 44 | 113107081 | NOC:Structural Analysis of Nanomaterials                                   |
| 45 | 113104084 | NOC:Solar Photovoltaics: Principles, Technologies and Material             |
| 46 | 113104085 | NOC:Defects in Crystalline Solids - Part II                                |
| 47 | 113105086 | NOC:Surface Engineering for Corrosion and Wear Resistance Application      |
| 48 | 113106087 | NOC:Welding Processes                                                      |
| 49 | 113106088 | NOC:Creep Deformation of Materials                                         |
| 50 | 113108083 | NOC:Friction and Wear of Materials: Principles and Case Studies            |
| 51 | 113104089 | NOC:Corrosion - Part II                                                    |
| 52 | 113104090 | NOC:Fundamentals and Applications of Dielectric Ceramics                   |
| 53 | 113106093 | NOC:Nanotechnology, Science and Applications                               |
| 54 | 113107091 | NOC:Thermo-Mechanical and Thermo-Chemical Processes                        |
| 55 | 113107092 | NOC:Welding Metallurgy                                                     |
| 56 | 113101096 | NOC:Dealing with Materials Data:Collection, Analysis and Interpretation    |
| 57 | 113104097 | NOC:Diffusion in Multicomponent Solids (2020.S1)                           |
| 58 | 113107096 | NOC:Modeling of Tundish Steelmaking Process in Continuous Casting          |
| 59 | 113104096 | NOC:Properties of Materials (Nature and Properties of Materials-III)       |
| 60 | 113106069 | NOC:Fundamentals of X-ray Diffraction and Transmission Electron Microscopy |
| 61 | 113101098 | NOC:Aqueous Corrosion and its Control                                      |
| 62 | 113105098 | NOC:Ironmaking and Steelmaking                                             |
| 63 | 113106098 | NOC:Powder Metallurgy                                                      |
| 64 | 113101099 | NOC:Cathodic Protection Engineering                                        |
| 65 | 113105099 | NOC:Non-Metallic Materials                                                 |

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| 66 | 113105100 | NOC:Scanning Electron/Ion/Probe Microscopy in Materials Characterization |
| 67 | 113106099 | NOC:Carbon Materials and Manufacturing                                   |
| 68 | 113104101 | NOC:Corrosion Failures and Analysis                                      |
| 69 | 113104102 | NOC:Nanomaterials and their Properties                                   |
| 70 | 113105101 | NOC:Techniques of Material Characterization                              |
| 71 | 113105102 | NOC:Electrochemical Energy Storage                                       |
| 72 | 113105103 | NOC:Texture in Materials                                                 |
| 73 | 113106101 | NOC:Mechanical Behavior of Materials                                     |
| 74 | 113104104 | NOC:Mechanical Behaviour of Materials - Part I                           |
| 75 | 113105104 | NOC:Bulk Material Transport and Handling Systems                         |
| 76 | 113104105 | NOC:Mechanical Behaviour of Materials - Part II                          |
| 77 | 113104106 | NOC:Electronic Properties of the Materials: Computational Approach       |
| 78 | 113105105 | NOC:Environmental Degradation and Surface Engineering                    |
| 79 | 113105106 | NOC:Fracture, Fatigue and Failure of Materials                           |
| 80 | 113105107 | NOC:Mine Closure and Sustainability Planning                             |
| 81 | 113106105 | NOC:Aluminium based Alloys and Metal Matrix Composites                   |
| 82 | 113106106 | NOC:Welding Science and Technology (In Tamil)                            |
| 83 | 113102108 | NOC:Crystals, Symmetry and Tensors                                       |
| 84 | 113104108 | NOC:Corrosion Protection Methods                                         |
| 85 | 113102109 | NOC:Corrosion/Environmental Degradation/Surface Engineering              |
| 86 | 113105109 | NOC:Fundamentals of Composite and Cellular Materials                     |
| 87 | 113106109 | NOC:Thermodynamics and Kinetics of Materials                             |

### Ocean Engineering (29 Video Courses)

|   |           |                                 |
|---|-----------|---------------------------------|
| 1 | 114105002 | Elements of Ocean Engineering   |
| 2 | 114105003 | Hydrostatics and Stability      |
| 3 | 114105004 | Marine Construction and Welding |
| 4 | 114105005 | Marine Hydrodynamics            |

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| 5                                 | 114105006 | Seakeeping and Manoeuvring                                                            |
| 6                                 | 114105029 | Applied Thermodynamics for Marine Systems                                             |
| 7                                 | 114105030 | Performance of Marine Vehicles at Sea                                                 |
| 8                                 | 114105031 | Strength and Vibration of Marine Structures                                           |
| 9                                 | 114106011 | Design of Offshore Structures                                                         |
| 10                                | 114106015 | Foundation for Offshore Structures                                                    |
| 11                                | 114106017 | Health,Safety and Environmental Management in Petroleum and Offshore Engineering      |
| 12                                | 114106025 | Port and Harbour Structures                                                           |
| 13                                | 114106026 | Ship Resistance and Propulsion                                                        |
| 14                                | 114106032 | Coastal Engineering                                                                   |
| 15                                | 114106033 | Wave Hydrodynamics                                                                    |
| 16                                | 114106035 | Ocean Structures and Materials                                                        |
| 17                                | 114106036 | Dynamics of Ocean Structures                                                          |
| 18                                | 114106037 | Advanced Marine Structures                                                            |
| 19                                | 114106038 | NOC:Dynamics of Ocean Structures                                                      |
| 20                                | 114106039 | NOC:Health, Safety and Environmental Management in Offshore and Petroleum Engineering |
| 21                                | 114106042 | NOC:HSE for offshore and petroleum engineers                                          |
| 22                                | 114106041 | NOC:Risk and Reliability of offshore structures                                       |
| 23                                | 114106043 | NOC:Offshore Structures Under Special Loads Including Fire Resistance                 |
| 24                                | 114106045 | NOC:Computer Methods Of Structural Analysis of Offshore Structures                    |
| 25                                | 114105044 | NOC:Water Economics and Governance                                                    |
| 26                                | 114106046 | NOC:Structural Health Monitoring                                                      |
| 27                                | 114105047 | NOC:Marine Propulsion                                                                 |
| 28                                | 114105048 | NOC:Numerical Ship and Offshore Hydrodynamics                                         |
| 29                                | 114106047 | NOC:Advanced Design of Steel Structures                                               |
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| <b>Physics (94 Video Courses)</b> |           |                                                                                       |
|                                   |           |                                                                                       |
| 1                                 | 115101005 | Electromagnetic Theory (Prof. D.K. Ghosh)                                             |

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| 2  | 115101011 | Special Theory of Relativity                                                |
| 3  | 115102014 | Electronics                                                                 |
| 4  | 115102020 | Fundamentals and Applications                                               |
| 5  | 115102022 | Quantum Electronics                                                         |
| 6  | 115102023 | Quantum Mechanics and Applications                                          |
| 7  | 115102026 | Semiconductor Optoelectronics                                               |
| 8  | 115104043 | Nuclear Physics: Fundamentals and Applications                              |
| 9  | 115104088 | NOC:Introduction to Electromagnetism                                        |
| 10 | 115105046 | Astrophysics and Cosmology                                                  |
| 11 | 115106057 | Special / Select Topics in Atomic Physics                                   |
| 12 | 115106058 | Classical Field Theory                                                      |
| 13 | 115106059 | Topics in Nonlinear Dynamics                                                |
| 14 | 115106061 | Condensed Matter Physics                                                    |
| 15 | 115106065 | Quantum Field Theory                                                        |
| 16 | 115106066 | Quantum Mechanics I                                                         |
| 17 | 115106068 | Special / Select Topics in Classical Mechanics                              |
| 18 | 115106085 | Special / Select Topics in the Theory of Atomic Collisions and Spectroscopy |
| 19 | 115106086 | Selected Topics in Mathematical Physics                                     |
| 20 | 115106090 | NOC: Mechanics, heat oscillations and waves                                 |
| 21 | 115108074 | Relativistic Quantum Mechanics                                              |
| 22 | 115106087 | Nuclear Reactors and Safety- An Introduction                                |
| 23 | 115106089 | Physical Applications of Stochastic Processes                               |
| 24 | 115106091 | Nonequilibrium Statistical Mechanics                                        |
| 25 | 115104094 | NOC:Engineering Mechanics                                                   |
| 26 | 115101092 | NOC:Quantum Information and Computing                                       |
| 27 | 115107095 | NOC:Fiber Optics                                                            |
| 28 | 115104095 | NOC:Computational Science and Engineering Using Python                      |
| 29 | 115104096 | NOC:Introductory Quantum Mechanics                                          |
| 30 | 115105097 | NOC:Mathematical Methods in Physics - I                                     |

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| 31 | 115105098 | NOC:Classical Mechanics: from Newtonian to Lagrangian Formulation            |
| 32 | 115105099 | NOC:Solid State Physics                                                      |
| 33 | 115103102 | NOC:Advanced Condensed Matter Physics                                        |
| 34 | 115105100 | NOC:Atomic and Molecular Physics                                             |
| 35 | 115103101 | NOC:Nuclear and Particle Physics                                             |
| 36 | 115102103 | Semiconductor Optoelectronics (Repurposed)                                   |
| 37 | 115101104 | NOC:Theory of Groups for Physics Applications                                |
| 38 | 115103104 | NOC:Advanced Quantum Mechanics with Applications                             |
| 39 | 115105104 | NOC:Modern Optics                                                            |
| 40 | 115105105 | NOC:Introduction to Non-linear Optics and its Applications                   |
| 41 | 115105106 | NOC:Upstream LNG Technology                                                  |
| 42 | 115108104 | NOC:Control System Design                                                    |
| 43 | 115101107 | NOC:Quantum Mechanics-I                                                      |
| 44 | 115103108 | NOC:A Brief Course on Superconductivity                                      |
| 45 | 115104109 | NOC:Introduction to Solid State Physics                                      |
| 46 | 115105110 | NOC:Experimental Physics-I                                                   |
| 47 | 115106111 | NOC:Statistical Mechanics                                                    |
| 48 | 115101117 | NOC:Path Integral and Functional Methods in Quantum Field Theory             |
| 49 | 115103113 | NOC:Introduction to Statistical Mechanics                                    |
| 50 | 115103114 | NOC:Numerical Methods and Simulation Techniques for Scientists and Engineers |
| 51 | 115103115 | NOC:Theoretical Mechanics                                                    |
| 52 | 115104112 | NOC:Physics of Turbulence                                                    |
| 53 | 115105120 | NOC:Experimental Physics - II                                                |
| 54 | 115106118 | NOC:Computational Physics                                                    |
| 55 | 115106119 | NOC:Waves and Oscillations                                                   |
| 56 | 115107116 | NOC:Solar Photovoltaics Fundamentals, Technology and Applications            |
| 57 | 115106122 | NOC:Electromagnetism                                                         |
| 58 | 115105122 | NOC:Electronic Theory of Solids                                              |
| 59 | 115105121 | NOC:Experimental Physics - III                                               |

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| 60 | 115101122 | NOC:Group Theory Methods in Physics                                         |
| 61 | 115107121 | NOC:Introduction to Atmospheric and Space Sciences                          |
| 62 | 115107122 | NOC:Optical Sensors                                                         |
| 63 | 115101121 | NOC:Physics of Biological Systems                                           |
| 64 | 115106121 | NOC:Physics through Computational Thinking                                  |
| 65 | 115106123 | NOC:Introduction to Classical Mechanics                                     |
| 66 | 115103123 | NOC:Solar Energy Engineering and Technology                                 |
| 67 | 115102124 | NOC:Introduction to LASER                                                   |
| 68 | 115104124 | NOC:Introduction to Astrophysical Fluids                                    |
| 69 | 115105124 | NOC:Physics of Linear and Nonlinear Optical Waveguides                      |
| 70 | 115106124 | NOC:Fluid Dynamics for Astrophysics                                         |
| 71 | 115106125 | NOC:Quantum Transport                                                       |
| 72 | 115106126 | NOC:Statistical Mechanics (2021)                                            |
| 73 | 115105127 | NOC:Physics of Renewable Energy Systems                                     |
| 74 | 115106127 | NOC:Solid State Physics                                                     |
| 75 | 115106128 | NOC:Introduction to Quantum Field Theory (Theory of Scalar Fields)          |
| 76 | 115108127 | NOC:Bonds and Bands in Solids                                               |
| 77 | 115103129 | NOC:Quantum Technology and Quantum Phenomena in Macroscopic Systems         |
| 78 | 115105129 | NOC:Thermal Physics                                                         |
| 79 | 115107129 | NOC:Advanced Atmospheric Physics                                            |
| 80 | 115107130 | NOC:Nuclear Astrophysics                                                    |
| 81 | 115108129 | NOC:Advanced NMR Techniques in Solution and Solid-State                     |
| 82 | 115101131 | NOC:Neutron Scattering for Condensed Matter Studies                         |
| 83 | 115101132 | NOC:Accelerator Physics                                                     |
| 84 | 115103131 | NOC:Dynamics of Classical and Quantum Fields                                |
| 85 | 115105131 | NOC:Concepts in Magnetism and Superconductivity                             |
| 86 | 115105132 | NOC:Foundations of Classical Electrodynamics                                |
| 87 | 115107131 | NOC:Applied Optics                                                          |
| 88 | 115106133 | NOC:Introduction to Quantum Field Theory (Theory of Scalar Fields) - Part 2 |

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| 89                                                                  | 115103134 | NOC:Quantum Hall Effects                                        |
| 90                                                                  | 115104134 | NOC:Introduction to Electromagnetic Theory (Hindi)              |
| 91                                                                  | 115104135 | NOC:Scientific Computing Using Python                           |
| 92                                                                  | 115105134 | NOC:Physics of Functional Materials and Devices                 |
| 93                                                                  | 115106134 | NOC:Radio Astronomy                                             |
| 94                                                                  | 115107134 | NOC:Newtonian Mechanics With Examples                           |
| <b>Textile Engineering (15 Video Courses)</b>                       |           |                                                                 |
| 1                                                                   | 116102034 | Theory of Yarn Structures                                       |
| 2                                                                   | 116104044 | Natural Dyes                                                    |
| 3                                                                   | 116102047 | NOC:Science of Clothing Comfort                                 |
| 4                                                                   | 116102048 | NOC:Yarn Manufacture-I: Principle of Carding and Drawing        |
| 5                                                                   | 116102049 | NOC:Evaluations of Textile Materials                            |
| 6                                                                   | 116102050 | NOC:Testing of Functional and Technical Textiles                |
| 7                                                                   | 116102051 | NOC:Theory of Yarn Structure                                    |
| 8                                                                   | 116102052 | NOC:Advanced Textile Printing Technology                        |
| 9                                                                   | 116102053 | NOC:Textured Yarn Technology                                    |
| 10                                                                  | 116102054 | NOC:Textile Finishing                                           |
| 11                                                                  | 116102055 | NOC:Principles of Combing, Roving preparation and Ring spinning |
| 12                                                                  | 116102056 | NOC:Science and Technology of Weft and Warp Knitting            |
| 13                                                                  | 116102057 | NOC:Technical Textiles                                          |
| 14                                                                  | 116102058 | NOC:Textile Product Design and Development                      |
| 15                                                                  | 116102059 | NOC:New Spinning Technologies                                   |
| <b>Electronics and Communication Engineering (95 Video Courses)</b> |           |                                                                 |
| 1                                                                   | 117101001 | Adv. Digital Signal Processing - Multirate and wavelets         |
| 2                                                                   | 117101002 | Advanced Optical Communication                                  |

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| 3  | 117101050 | Broadband Networks: Concepts and Technology       |
| 4  | 117101051 | Digital Communication                             |
| 5  | 117101053 | Information Theory and Coding                     |
| 6  | 117101056 | Transmission Lines and EM Waves                   |
| 7  | 117102012 | RF Integrated Circuits                            |
| 8  | 117102059 | Communication Engineering                         |
| 9  | 117102060 | Digital Signal Processing                         |
| 10 | 117102062 | Wireless Communication                            |
| 11 | 117103063 | Basic Electronics                                 |
| 12 | 117104074 | Signals and Systems                               |
| 13 | 117104099 | Advanced 3G and 4G Wireless Mobile Communications |
| 14 | 117104104 | Digital Switching                                 |
| 15 | 117105075 | Adaptive Signal Processing                        |
| 16 | 117105078 | Digital Computer Organization                     |
| 17 | 117105079 | Digital Image Processing                          |
| 18 | 117105080 | Digital Systems Design                            |
| 19 | 117105081 | Digital Voice and Picture Communication           |
| 20 | 117105082 | MEMS and Microsystems                             |
| 21 | 117105084 | Neural Networks and Applications                  |
| 22 | 117105085 | Probability and Random Processes                  |
| 23 | 117105101 | Pattern Recognition and Application               |
| 24 | 117106030 | Analog IC Design                                  |
| 25 | 117106031 | Coding Theory                                     |
| 26 | 117106033 | Semiconductor Device Modeling                     |
| 27 | 117106034 | VLSI Data Conversion Circuits                     |
| 28 | 117106086 | Digital Circuits and Systems                      |
| 29 | 117106087 | Electronics for Analog Signal Processing - I      |
| 30 | 117106088 | Electronics for Analog Signal Processing - II     |
| 31 | 117106089 | High Speed Devices and Circuits                   |

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| 32 | 117106091 | Solid State Devices                                                                   |
| 33 | 117106092 | VLSI Circuits                                                                         |
| 34 | 117106093 | VLSI Technology                                                                       |
| 35 | 117106101 | Basic Electrical Circuits                                                             |
| 36 | 117106108 | NOC:Basic Electrical Circuits                                                         |
| 37 | 117106114 | NOC:Digital Circuits and Systems                                                      |
| 38 | 117108038 | Circuits for Analog System Design                                                     |
| 39 | 117108040 | Digital System design with PLDs and FPGAs                                             |
| 40 | 117108044 | Error Correcting Codes                                                                |
| 41 | 117108048 | Pattern Recognition                                                                   |
| 42 | 117106111 | ARM Based Development                                                                 |
| 43 | 117106112 | Embedded Software Testing                                                             |
| 44 | 117106109 | Advanced Logic Synthesis                                                              |
| 45 | 117106113 | Linux Programming and Scripting                                                       |
| 46 | 117104115 | NOC:Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications                     |
| 47 | 117106116 | NOC:Networks and Systems                                                              |
| 48 | 117104117 | NOC:Probability and Random Variables, Processes for Wireless Communications           |
| 49 | 117108107 | Analog Circuits and Systems 1                                                         |
| 50 | 117101106 | Analog Circuits                                                                       |
| 51 | 117101004 | Advanced VLSI Design                                                                  |
| 52 | 117101105 | CMOS Analog VLSI Design                                                               |
| 53 | 117101119 | NOC:Microwave Integrated Circuits                                                     |
| 54 | 117104118 | NOC:Estimation for Wireless Communications / MIMO / OFDM Cellular and Sensor Networks |
| 55 | 117105122 | NOC:Basic Tools of Microwave Engineering                                              |
| 56 | 117108124 | NOC:Design and Simulation of DC-DC converters using Open Source Tools                 |
| 57 | 117101123 | NOC:Foundations of Wavelets and Multirate Digital Signal Processing                   |
| 58 | 117104121 | NOC>Error Control Coding: An Introduction to Linear Block code                        |
| 59 | 117104120 | NOC>Error Control Coding: An Introduction to Convolutional Codes                      |
| 60 | 117105135 | NOC:Digital Image Processing                                                          |

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| 61 | 117105133 | NOC:Audio System Engineering                                                                      |
| 62 | 117105132 | NOC:Fundamentals of MIMO Wireless Communication                                                   |
| 63 | 117105131 | NOC:Satellite Communication Systems                                                               |
| 64 | 117104128 | NOC:Digital Switching-I                                                                           |
| 65 | 117104126 | NOC:Bayesian/MMSE Estimation for Wireless Communications MIMO / OFDM Cellular and Sensor Networks |
| 66 | 117105130 | NOC:Basic Building Blocks of Microwave Engineering                                                |
| 67 | 117105134 | NOC:Discrete Time Signal Processing                                                               |
| 68 | 117104129 | NOC:An Introduction to Information Theory                                                         |
| 69 | 117104127 | NOC:Optical Communications                                                                        |
| 70 | 117103125 | NOC:VLSI Design Verification and Test                                                             |
| 71 | 117108047 | Nanoelectronics: Devices and Materials                                                            |
| 72 | 117105139 | NOC:Millimeter Wave Technology                                                                    |
| 73 | 117105138 | NOC:Design Principles of RF and Microwave Filters and Amplifiers                                  |
| 74 | 117105137 | NOC:Digital VLSI Testing                                                                          |
| 75 | 117105136 | NOC:Spread Spectrum Communications and Jamming                                                    |
| 76 | 117108140 | NOC:Enclosure Design of Electronics Equipment                                                     |
| 77 | 117108141 | NOC:Design of Photovoltaic Systems                                                                |
| 78 | 117108142 | NOC:Photonic Integrated Circuits                                                                  |
| 79 | 117105140 | NOC:Power System Analysis                                                                         |
| 80 | 117105143 | NOC:Analog Communication                                                                          |
| 81 | 117105144 | NOC:Modern Digital Communication Techniques                                                       |
| 82 | 117105145 | NOC:Digital Speech Processing                                                                     |
| 83 | 117105147 | NOC:Analog Circuits and Systems through SPICE Simulation                                          |
| 84 | 108107107 | NOC:Basics of Software Defined Radios and Practical Applications                                  |
| 85 | 108106105 | NOC:Analog IC Design                                                                              |
| 86 | 117103148 | NOC:Design of Power Electronic Converters                                                         |
| 87 | 117103149 | NOC:Operation and Planning of Power Distribution Systems                                          |
| 88 | 117105148 | NOC:Communication Networks                                                                        |

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| 89 | 117105149 | NOC:Signal Processing Techniques and its Applications |
| 90 | 117106148 | NOC:Circuit Analysis for Analog Designers             |
| 91 | 117106149 | NOC:Design and Analysis of VLSI Subsystems            |
| 92 | 117107148 | NOC:Digital Protection of Power System                |
| 93 | 117107149 | NOC:Physics of Nanoscale Devices                      |
| 94 | 117108148 | NOC:Neural Science for Engineers                      |
| 95 | 117103150 | NOC:Nanophotonics, Plasmonics, and Metamaterials      |

### **Nanotechnology (2 Video Courses)**

|   |           |                                                                                 |
|---|-----------|---------------------------------------------------------------------------------|
| 1 | 118102003 | Nano structured materials-synthesis, properties, self assembly and applications |
| 2 | 118104008 | Nanostructures and Nanomaterials: Characterization and Properties               |

### **Atmospheric Science (3 Video Courses)**

|   |           |                                     |
|---|-----------|-------------------------------------|
| 1 | 119106008 | Introduction to Atmospheric Science |
| 2 | 119108004 | Radiation Heat Transfer             |
| 3 | 119108006 | The monsoon and its variability     |

### **General (12 Video Courses)**

|   |           |                                                                  |
|---|-----------|------------------------------------------------------------------|
| 1 | 121104005 | Introduction to Japanese Language and Culture                    |
| 2 | 121106003 | Ayurvedic Inheritance of India                                   |
| 3 | 121104006 | Astronomy in Ancient, Medieval and Early Telescopic Era of India |
| 4 | 121106007 | NOC:Introduction to Research                                     |
| 5 | 121106008 | NOC:Biology for engineers and other non-biologists               |
| 6 | 121105009 | NOC:Stress Management                                            |
| 7 | 121105010 | NOC:Outcome Based Pedagogic Principles for Effective Teaching    |
| 8 | 121107009 | NOC:Introduction to Remote Sensing                               |

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| 9                                                          | 121106011 | NOC:Digital and the Everyday: from Codes to Cloud         |
| 10                                                         | 121106012 | NOC:Effective Engineering Teaching in Practice            |
| 11                                                         | 121106013 | NOC:Virtual Reality Engineering                           |
| 12                                                         | 121106014 | NOC:Non-Conventional Energy Resources                     |
|                                                            |           |                                                           |
| <b>Basic Courses - Semester 1 and 2 (21 Video Courses)</b> |           |                                                           |
|                                                            |           |                                                           |
| 1                                                          | 122102004 | Applied mechanics                                         |
| 2                                                          | 122102007 | Management Science I                                      |
| 3                                                          | 122102008 | Materials Science                                         |
| 4                                                          | 122102009 | Numerical Methods and Computation                         |
| 5                                                          | 122104015 | Engineering Mechanics                                     |
| 6                                                          | 122104016 | Engineering Physics II                                    |
| 7                                                          | 122104017 | Mathematics I                                             |
| 8                                                          | 122105020 | Human Resource Management-I                               |
| 9                                                          | 122105021 | Leadership                                                |
| 10                                                         | 122105022 | Management Information System                             |
| 11                                                         | 122105023 | Physics I - Oscillations and Waves                        |
| 12                                                         | 122105024 | Strategic Management                                      |
| 13                                                         | 122106025 | Basic Electronics and Lab                                 |
| 14                                                         | 122106027 | Classical Physics                                         |
| 15                                                         | 122106028 | Engineering Chemistry - I                                 |
| 16                                                         | 122106033 | Numerical Methods and Programming                         |
| 17                                                         | 122106034 | Quantum Physics                                           |
| 18                                                         | 122107035 | Engineering Physics - I                                   |
| 19                                                         | 122107036 | Mathematics - II                                          |
| 20                                                         | 122107037 | Mathematics - III                                         |
| 21                                                         | 122108038 | Concept of Management and Evolution of Management thought |
|                                                            |           |                                                           |

### Mining Engineering (6 Video Courses)

|   |           |                                                        |
|---|-----------|--------------------------------------------------------|
| 1 | 123105001 | Fundamentals of Environmental Pollution and Control    |
| 2 | 123105003 | NOC:Drilling and Blasting Technology                   |
| 3 | 123105004 | NOC:Network Analysis for Mines and Mineral Engineering |
| 4 | 123105005 | NOC:Mining Machinery                                   |
| 5 | 123105006 | NOC:Underground Mining of Metalliferous Deposits       |
| 6 | 123105007 | NOC:Surface Mining Technology                          |

### Architecture (29 Video Courses)

|    |           |                                                                   |
|----|-----------|-------------------------------------------------------------------|
| 1  | 124107001 | NOC:Housing Policy and Planning                                   |
| 2  | 124105001 | NOC:Landscape Architecture and Site Planning - Basic Fundamentals |
| 3  | 124107002 | NOC:Visual Communication Design for Digital Media                 |
| 4  | 124105003 | NOC:Architectural Conservation and Historic Preservation          |
| 5  | 124105004 | NOC:Architectural Acoustics                                       |
| 6  | 124107004 | NOC:Culturally Responsive Built Environments                      |
| 7  | 124107005 | NOC:Contemporary Architecture and Design                          |
| 8  | 124107006 | NOC:Role of Craft and Technology in Interior-Architecture         |
| 9  | 124106009 | NOC:Introduction to History of Architecture in India              |
| 10 | 124107007 | NOC:Urban Governance and Development Management                   |
| 11 | 124107008 | NOC:User Interface Design                                         |
| 12 | 124107010 | NOC:Disaster Recovery and Build Back Better                       |
| 13 | 124107012 | NOC:Structure, Form and Architecture: The Synergy                 |
| 14 | 124107011 | NOC:Sustainable Architecture                                      |
| 15 | 124105013 | NOC:Building Materials and Composites                             |
| 16 | 124105014 | NOC:Environmental Soil Chemistry                                  |
| 17 | 124105015 | NOC:Structural System in Architecture                             |
| 18 | 124105016 | NOC:Urban Landuse and Transportation Planning                     |

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| 19 | 124106157 | NOC:Strategies for Sustainable Design                                                                                             |
| 20 | 124107157 | NOC:Engineering/Architectural Graphics - Part I: Orthographic projection                                                          |
| 21 | 124105158 | NOC:Urban utilities Planning : Water Supply, Sanitation and Drainage                                                              |
| 22 | 124107158 | NOC:Introduction to Urban Planning                                                                                                |
| 23 | 124107159 | NOC:Engineering, Architectural Graphics - Part II (Isometric and Axonometric Drawings)                                            |
| 24 | 124107160 | NOC:Environmental Impact Assessment                                                                                               |
| 25 | 124107161 | NOC:Modern Indian Architecture                                                                                                    |
| 26 | 124107162 | NOC:International Studies in Vernacular Architecture                                                                              |
| 27 | 124105163 | NOC:Urban Services Planning                                                                                                       |
| 28 | 124107164 | NOC:Introduction to Interaction Design                                                                                            |
| 29 | 124107165 | NOC:Understanding and Reducing Ghg Emissions - Focus on Scope 1 and 2 Emission Reduction through Building Design and Construction |

### Agriculture (27 Video Courses)

|    |           |                                                                     |
|----|-----------|---------------------------------------------------------------------|
| 1  | 126104001 | NOC:Basic Crop Production Practices (BCPP)                          |
| 2  | 126104002 | NOC:GIS in Ag-Essentials and Applications (GIS)                     |
| 3  | 126104003 | NOC:Integrated Pest Management (IPM)                                |
| 4  | 126104004 | NOC:Nutrition, Therapeutics and Health (NM)                         |
| 5  | 126104005 | NOC:Weather Forecast in Agriculture and Agro-advisory (WF)          |
| 6  | 126104006 | NOC:ICT Basics                                                      |
| 7  | 126105008 | NOC:Momentum Transfer in Process Engineering                        |
| 8  | 126105009 | NOC:Farm Machinery                                                  |
| 9  | 126105010 | NOC:Irrigation and Drainage                                         |
| 10 | 126105011 | NOC:Fundamentals of Food Process Engineering                        |
| 11 | 126105012 | NOC:Soil and Water Conservation Engineering                         |
| 12 | 126105013 | NOC:Dairy and Food Process and Products Technology                  |
| 13 | 126105014 | NOC:Organic Farming for Sustainable Agricultural Production         |
| 14 | 126105015 | NOC:Novel Technologies for Food Processing and Shelf Life Extension |

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| 15 | 126105016 | NOC:Soil Science and Technology                                                                       |
| 16 | 126103017 | NOC:Thermal Processing of Foods                                                                       |
| 17 | 126105018 | NOC:Thermal Operations in Food Process Engineering: Theory and Applications                           |
| 18 | 126105019 | NOC:Micro Irrigation Engineering                                                                      |
| 19 | 126105020 | NOC:Instrumentation and Process Control in Food Industry                                              |
| 20 | 126105021 | NOC:Machine Learning for Soil and Crop Management                                                     |
| 21 | 126103022 | NOC:Natural Resources Management                                                                      |
| 22 | 126105022 | NOC:Advanced Aquaculture Technology                                                                   |
| 23 | 126105023 | NOC:Post Harvest Operations and Processing of Fruits, Vegetables, Spices and Plantation Crop Products |
| 24 | 126105024 | NOC:Soil Fertility and Fertilizers                                                                    |
| 25 | 126105025 | NOC:Cooling Technology: Why and How utilized in Food Processing and Allied Industries                 |
| 26 | 126105026 | NOC:Traction Engineering                                                                              |
| 27 | 126105027 | NOC:Food Oils and Fats : Chemistry and Technology                                                     |

### Multi-Disciplinary (47 Video Courses)

|    |           |                                                                                                    |
|----|-----------|----------------------------------------------------------------------------------------------------|
| 1  | 127106001 | NOC:Neuroscience of Human Movement                                                                 |
| 2  | 127106003 | NOC:Manage TB                                                                                      |
| 3  | 127106004 | NOC:Ecology and Environment                                                                        |
| 4  | 127101010 | NOC:Designing Learner-Centric MOOCs                                                                |
| 5  | 127105006 | NOC:Fuzzy Logic and Neural Networks                                                                |
| 6  | 127105007 | NOC:Entrepreneurship Essentials                                                                    |
| 7  | 127105008 | NOC:Roadmap for Patent Creation                                                                    |
| 8  | 127106009 | NOC:Current Regulatory Requirements for Conducting Clinical Trials in India                        |
| 9  | 127106010 | NOC:Regulatory Requirements for Medical Devices and IVD kits in India                              |
| 10 | 127108005 | NOC:Teaching and Learning in Engineering (TALE)                                                    |
| 11 | 127101012 | NOC:Introduction to Learning Analytics                                                             |
| 12 | 127101013 | NOC:Designing Learner-Centric e-Learning in STEM Disciplines                                       |
| 13 | 127101014 | NOC:Sustainable and Affordable Sanitation Solutions for Small Towns: Policy, Planning and Practice |

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| 14 | 127105017 | NOC:Accreditation and Outcome based Learning                                                                            |
| 15 | 127105018 | NOC:Introduction to Environmental Engineering and Science - Fundamental and Sustainability Concepts                     |
| 16 | 127106019 | NOC:Numerical Methods for Engineers                                                                                     |
| 17 | 127108015 | NOC:Teaching and Learning in General Programs: TALG                                                                     |
| 18 | 127108016 | NOC:TALE 2: Course Design and Instruction of Engineering Courses                                                        |
| 19 | 127106134 | Basic Course in Biomedical Research                                                                                     |
| 20 | 127106137 | NOC:Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs (Version 2.0) |
| 21 | 127108135 | NOC:NBA Accreditation and Teaching Learning in Engineering (NATE)                                                       |
| 22 | 127106136 | NOC:Regulatory Requirements for Medical Devices including in Vitro Diagnostics in India (Version 2.0)                   |
| 23 | 127106135 | NOC:Thermodynamics                                                                                                      |
| 24 | 106101224 | NOC:Learning Analytics Tools                                                                                            |
| 25 | 127103225 | NOC:Fundamental of Fluid Mechanics for Chemical and Biomedical Engineers                                                |
| 26 | 127105225 | NOC:Biophotonics                                                                                                        |
| 27 | 127106225 | NOC:Model Predictive Control: Theory and Applications                                                                   |
| 28 | 127106227 | NOC:Research Methodology                                                                                                |
| 29 | 127106228 | NOC:Management of Medical Emergencies in Dental Practice                                                                |
| 30 | 127106229 | NOC:Basic Course in Ornithology                                                                                         |
| 31 | 127106230 | NOC:Oral Biology                                                                                                        |
| 32 | 127105231 | NOC:Vacuum Technology and Process Application                                                                           |
| 33 | 127105232 | NOC:Basics of Health Promotion and Education Intervention                                                               |
| 34 | 127106231 | NOC:Introduction to Biomimicry                                                                                          |
| 35 | 127106232 | NOC:Electrocardiogram - Interpretation and Application in Clinical Practice                                             |
| 36 | 127101233 | NOC:Engineering Statistics                                                                                              |
| 37 | 127104233 | NOC:Foundation Certificate in Palliative Care                                                                           |
| 38 | 127105233 | NOC:Basics of Mental Health and Clinical Psychiatry                                                                     |
| 39 | 127105234 | NOC:Introduction to Reliability Engineering                                                                             |
| 40 | 127105235 | NOC:Nanobio Technology Enabled Point-of-Care Devices                                                                    |
| 41 | 127106233 | NOC:One Health                                                                                                          |

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| 42                                               | 127102236 | NOC:Similitude and Approximations in Engineering                             |
| 43                                               | 127103236 | NOC:Sustainable Power Generation Systems                                     |
| 44                                               | 127105236 | NOC:Adolescent Health and Well-Being : A Holistic Approach                   |
| 45                                               | 127105237 | NOC:Research Methods in Health Promotion                                     |
| 46                                               | 127106236 | NOC:Canning Technology, Value Addition of Seafood (Fish Processing)          |
| 47                                               | 127106237 | NOC:Food Packaging Technology                                                |
| <b>Special Lecture Series (25 Video Courses)</b> |           |                                                                              |
| 1                                                | 128106001 | ACM Summer School on Graph Theory and Graph Algorithms                       |
| 2                                                | 128106002 | ACM Summer School in Data Science (Goa)                                      |
| 3                                                | 128106003 | Topics in Theoretical Computer Science                                       |
| 4                                                | 128106004 | Researching Anglo-Indians in India and the Diaspora                          |
| 5                                                | 128106005 | Dravidian Temple Architecture and Construction Techniques                    |
| 6                                                | 128106006 | ACM Summer School in Data Science (Bangalore)                                |
| 7                                                | 128106007 | ACM Summer School on Algorithmic Game Theory                                 |
| 8                                                | 128106008 | ACM Summer School on Graph Theory and Graph Algorithms                       |
| 9                                                | 128106009 | ACM Summer School on Compiler Design and Construction                        |
| 10                                               | 128106010 | ACM Summer School on Geometric Algorithms and their Applications             |
| 11                                               | 128106011 | ACM Summer School on Algorithmic and Theoretical Aspects of Machine Learning |
| 12                                               | 128106012 | ACM Winter School on Hybrid Cloud                                            |
| 13                                               | 128106013 | ACM Indian Summer School on Programming Languages: Principles and Practice   |
| 14                                               | 128106014 | ACM Winter School 2019 on High Performance Computing (HPC)                   |
| 15                                               | 128106015 | Thermodynamics of Materials                                                  |
| 16                                               | 128108016 | ACM India Summer School on IoT and Embedded Systems                          |
| 17                                               | 128106017 | ACM India Summer School on Program Execution                                 |
| 18                                               | 128106018 | ACM India Summer School on Programming Language Analysis and Optimizations   |
| 19                                               | 128106019 | ACM Summer School on Shape Modelling                                         |
| 20                                               | 128106020 | ACM India Summer School on Shape Modelling                                   |

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| 21                                 | 128106021 | ACM India Winter School on Topics in Digital Trust                                              |
| 22                                 | 128106032 | ACM Winter School on Design, Implementation and Verification of Computer Systems                |
| 23                                 | 128106033 | Topics In Theoretical Computer Science (2023)                                                   |
| 24                                 | 128108017 | ACM India Summer School on Algorithms for Data Science (2023)                                   |
| 25                                 | 128108018 | ACM India Summer School on Cybersecurity for Women                                              |
|                                    |           |                                                                                                 |
| <b>Law (10 Video Courses)</b>      |           |                                                                                                 |
|                                    |           |                                                                                                 |
| 1                                  | 129106001 | NOC:Right to Information and Good Governance                                                    |
| 2                                  | 129106002 | NOC:Constitution of India and Environmental Governance: Administrative and Adjudicatory Process |
| 3                                  | 129106003 | NOC:Constitutional Studies                                                                      |
| 4                                  | 129105004 | NOC:Introduction to Law on Electricity                                                          |
| 5                                  | 129105005 | NOC:Legal and Regulatory Issues in Biotechnology                                                |
| 6                                  | 129105006 | NOC:New Labour Codes of India                                                                   |
| 7                                  | 129106006 | NOC:Advanced Contracts, Tendering and Public Procurement                                        |
| 8                                  | 129105007 | NOC:IP Management and Technology Transfer                                                       |
| 9                                  | 129105008 | NOC:Biodiversity Protection, Farmers and Breeders Rights                                        |
| 10                                 | 129106008 | NOC:Conflict Management through Mediation                                                       |
|                                    |           |                                                                                                 |
| <b>Economics (8 Video Courses)</b> |           |                                                                                                 |
|                                    |           |                                                                                                 |
| 1                                  | 130106001 | NOC:Introduction to Econometrics                                                                |
| 2                                  | 130106113 | NOC:Environmental and Resource Economics                                                        |
| 3                                  | 130104114 | NOC:Microfoundations of Macroeconomics                                                          |
| 4                                  | 130104115 | NOC:Introduction to Microeconomics in Hindi and without Calculus                                |
| 5                                  | 130104116 | NOC:Economics of Banking and Finance Markets                                                    |
| 6                                  | 130106115 | NOC:Spatial Statistics and Spatial Econometrics                                                 |
| 7                                  | 130106117 | NOC:Economics of Innovation                                                                     |
| 8                                  | 130106118 | NOC:Principles of Economics                                                                     |