



Department of Mechanical Engineering

DIGITAL LINK OF NPTEL VIDEO LECTURES OF UG COURSES

ENGINEERING THERMODYNAMICS

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-----------------------------------------------|--------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Introduction to Fundamentals Concepts | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 2 | Different kind of Energy & first law-I | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 3 | First law - III | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 4 | Second law & its Corollaries-II | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 5 | Second law & its Corollaries-IV | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 6 | Second law & Available Energy-II | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 7 | Thermodynamics Property Relation-I | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 8 | Thermodynamics of Multi-Component systems-III | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 9 | Gas Power cycle-III | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |
| 10 | Vapors power cycle-III | IIT Kharagpur - Prof. S.K. Som | Thermodynamics | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Basic%20Thermodynamics/112105123 |

DESIGN OF MACHINE ELEMENT

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-------------------------------------------|--------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Design of Brakes-II | IIT Kharagpur - Prof. G. Chakraborty | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 2 | Design of cylinders & Pressure Vessels-II | IIT Kharagpur - Prof. G. Chakraborty | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 3 | Design for Strength | IIT Kharagpur - Prof. B. Maiti | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 4 | Design of Springs | IIT Kharagpur - Prof. B. Maiti | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 5 | Design of Welded Joints-II | IIT Kharagpur - Prof. G. Chakraborty | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |



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| 6 | Design of Power Screw | IIT Kharagpur - Prof. G. Chakraborty | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 7 | Design of Keys & Splines | IIT Kharagpur Prof. G. Chakraborty | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 8 | Design Philosophy | IIT Kharagpur - Prof. B. Maiti | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 9 | Simple Stresses in Machine Elements | IIT Kharagpur - Prof. B. Maiti | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |
| 10 | Engineering Materials | IIT Kharagpur - Prof. B. Maiti | Design of Machine Elements-I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Design%20of%20Machine%20Elements%20I/112105124 |

DYNAMICS OF MACHINE

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Vibration measurement: Types of Pickups | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 2 | Vibration of Beams: Approximate Methods | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 3 | Design of vibration Absorbers; Free vibration of Multiple Degrees of Freedom systems; Orthogonality of Normal Modes. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 4 | Rigid Body Motion | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 5 | Space Motion of Rigid Bodies: Inertia Tensor & Angular Momentum. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 6 | Balancing machines & Field Balancing of Rotating Discs. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 7 | Turning moment diagram | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 8 | Approximate method of vibration analysis: Rayleigh method. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 9 | Vibration of Continuous systems: Longitudinal Vibration of Prismatic Bars. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |
| 10 | Free Vibration of Multiple Degrees of Freedom system: Flexibility matrix & Influence coefficients. | IIT Kanpur - Prof. Amitabha Ghosh | Dynamics of Machine | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Dynamics%20of%20Machine/112104114 |



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OPERATION RESEARCH

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Inventory models- Discount models, constrained Inventory problem, Lagrangean multipliers, Conclusion | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 2 | Dynamic programming- Examples to solve linear & Integer programming problems | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 3 | Dynamic programming- Example Involving discrete. | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 4 | Assignment problem- Hungarian Algorithm | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 5 | Transportation problem- Optimal solution | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 6 | Sensitivity Analysis Transportation problem (Introduction) | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 7 | Dual variables and The Simplex tables, Dual simplex Algorithm | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 8 | Introduction to Duality | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 9 | Simplex Algorithm- Initialization and Iteration. | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |
| 10 | Linear programming formulation (Continued) | IIT Madras - Prof. G. Srinivasan | Fundamental of Operation Research | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Fundamentals%20of%20Operations%20Research/112106134 |

HEAT TRANSFER

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-----------------------------------|-----------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Introduction to Mass Transfer - 3 | IIT Bombay - Prof. U.N. Gaitonde | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 2 | Boiling and Condensation | IIT Bombay - Prof. S. P. Sukhatme | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 3 | Heat Exchangers - 4 | IIT Bombay - Prof. S. P. Sukhatme | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 4 | Natural Convection | IIT Bombay - Prof. | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |



TULSIRAMJI GAIKWAD-PATIL College of Engineering and Technology

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| Sr. No. | Topic | Faculty | Subject | Link |
|---------|------------------------------|-----------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | Forced Convection - 4 | IIT Bombay - Prof. U.N. Gaitonde | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 6 | Review of Fluid mechanics- 2 | IIT Bombay - Prof. U.N. Gaitonde | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 7 | Thermal Radiation - 6 | IIT Bombay - Prof. S. P. Sukhatme | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 8 | Heat Conduction - 6 | IIT Bombay - Prof. S. P. Sukhatme | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 9 | Heat Conduction - 3 | IIT Bombay - Prof. S. P. Sukhatme | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |
| 10 | Forced Convection - 2 | IIT Bombay - Prof. U.N. Gaitonde | Heat & Mass Transfer | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Heat%20and%20Mass%20Transfer/112101097 |

INDUSTRIAL ENGINEERING

| Sr. No. | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|---------|----------------------------------------|-------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Industrial Engineering - | IIT Roorkee - Prof. Inderdeep singh | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 2 | Working conditions light & Vibrations- | IIT Roorkee - Dr. D.K. Dwivedi | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 3 | Statistical process control part | IIT Roorkee & Prof. Pradeep Kumar | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 4 | Product Design & Development | IIT Roorkee - prof. P.K. Jain | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 5 | Reliability | IIT Roorkee - Prof. Inderdeep singh | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 6 | Metabolism & Organization at work | IIT Roorkee - Dr. D.K. Dwivedi | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 7 | Production planning and Control | IIT Roorkee - prof. P.K. Jain | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 8 | Value Engineering | IIT Roorkee - Prof. Inderdeep singh | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 9 | Ergonomic | IIT Roorkee - Dr. D.K. Dwivedi | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |
| 10 | Quality Concepts | IIT Roorkee - Prof. Inderdeep singh | Industrial Engineering | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Industrial%20Engineering/112107143 |



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KINEMATIC OF MACHINE

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|------------------------------------|--------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Velocity and Acceleration Analysis | IIT Kanpur – Prof. A.K. Mallik | Kinematics of Machines | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Kinematics%20of%20Machines/112104121 |
| 2 | Epicyclic Gear Train | IIT Kanpur – Prof. A.K. Mallik | Kinematics of Machines | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Kinematics%20of%20Machines/112104121 |
| 3 | Steering Mechanisms | IIT Kanpur – Prof. A.K. Mallik | Kinematics of Machines | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Kinematics%20of%20Machines/112104121 |

MANUFACTURING PROCESSES-I

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-------------------------------------------|----------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Reaction in weld Region & Welding Defects | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 2 | Resistance welding process | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 3 | Tungsten Inert Gas Welding | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 4 | Gas Metal ARC welding | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 5 | Submerged ARC welding | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 6 | Shielded Metal ARC welding | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 7 | ARC welding power source | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 8 | Brazing Soldering & Braze Welding | IIT Roorkee - Dr. D.K. Dwivedi | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
| 9 | Metal Casting | IIT Roorkee - Dr. D.B. Karunakar | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |



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| 10 | Powder Metallurgy | IIT Roorkee - Dr. Prof. inderdeep singh | Manufacturing Processes - I | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20I/112107145 |
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MANUFACTURING PROCESSES- II

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Configuration, Kinematic system, working principle & Application of shaping planning & slotting machines. | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 2 | Instructional Objectives | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 3 | EBM + LBM | IIT Kharagpur - Prof. S. Paul | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 4 | Ultrasonic Machining | IIT Kharagpur - Prof. S. Paul | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 5 | Super finishing Processes | IIT Kharagpur - Prof. A.K. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 6 | Mounting of jobs & Cutting Tools in Machine Tools (contd.) | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 7 | Conventional Cutting Tool Maths | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 8 | Analytical and Experimental | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 9 | Mechanism of Chip Formation | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |
| 10 | On tool Geometry | IIT Kharagpur - Prof. A.B. Chattopadhyay | Manufacturing Processes - II | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Manufacturing%20Processes%20II/112105126 |

MECHANICAL MEASUREMENT & METROLOGY

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|-------------------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | General issues in Mechanical measurement. | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |



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| 2 | Measurement of Gas composition and smoke | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 3 | Measurement of Viscosity | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 4 | Flow Measuring Devices | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 5 | Laser Doppler velocimetry and ultrasonic Methods | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 6 | Transient response of Pressure transducers | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 7 | Prometry (Continued), Gas temperature measurement and measurement of pressure. | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |
| 8 | Errors in Temperature measurement. | IIT Madras - Prof S.P. Venkateshan | Mechanical Measurement and Metrology | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Mechanical%20Measurements%20and%20Metrology/112106138 |

REFRIGERATION AND AIR CONDITIONING

| SR. NO | NAME OF TOPIC | NAME OF FACULTY | SUBJECT | LINK |
|--------|------------------------|-----------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Space Air distribution | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |



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|----|--------------------------------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Cooling & Heating Load calculation | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 3 | Psychometric | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 4 | Refrigeration system Components: Condensers & Evaporators | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 5 | Refrigeration system components: Compressor (Contd.) | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 6 | Worked out Example -I | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 7 | Vapour Compression refrigeration system (Contd.) | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 8 | Air Cycle refrigeration system | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 9 | Review of Fundamentals 2. Thermodynamics | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |
| 10 | Refrigeration compressors & Development | IIT Kharagpur - Prof. M. Ramgopal | Refrigeration and Air Conditioning | http://172.16.200.201/file-man/?dir=KM-DISK/Data-Bank/NPTEL/Mech%20-%20Refrigeration%20and%20Air%20Conditioning/112105128 |