

**Yenepoya Institute of Technology**  
**Department of Mechanical Engineering**  
**Details of Online Classes**

Academic Year: 2020-2021		Semester: VII		Course: Energy Engineering		Course Code: 17ME71	
Serial No:	Date	Module	Topics Covered	Material link (Video/ppt/Notes/ Question Bank)			
1	December-I Week	Module -4	Properties of wind, availability of wind energy in India, wind velocity and power from wind;	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a> <a href="https://www.youtube.com/watch?v=GExTwRNkQBg">https://www.youtube.com/watch?v=GExTwRNkQBg</a>			
2			Major problems associated with wind power	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a>			
3			wind machines; Types of wind machines and their characteristics, horizontal axis wind turbines	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a> <a href="https://www.youtube.com/watch?v=NmL3qsfR8II">https://www.youtube.com/watch?v=NmL3qsfR8II</a>			
4			vertical axis wind mills, coefficient of performance of a wind mill rotor-problem	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a> <a href="https://www.youtube.com/watch?v=b6n1RboeWL8&amp;list=PL956E674A528CAD77">https://www.youtube.com/watch?v=b6n1RboeWL8&amp;list=PL956E674A528CAD77</a>			
5			Tidal Power: Tides and waves as energy suppliers and fundamentals	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a>			
6			Tidal energy conversion systems- single basin and double basin	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a>			
7			Wave energy and its	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a>			

			characteristics	4ODU4/details
8			Wave energy conversion systems	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3NzY4NTY4ODU4/details</a>
9	December-III Week	Module -5	Introduction; Photosynthesis Process; Bio-fuels; Biomass Resources	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a>
10			Biomass conversion technologies; Urban waste to energy conversion	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a>
11			Biomass gasification. Green Energy:	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a>
12			Introduction: Fuel cells: Overview; Classification of fuel cells	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a> <a href="https://www.youtube.com/watch?v=L2VSOccUrSk">https://www.youtube.com/watch?v=L2VSOccUrSk</a>
13			Operating principles; Fuel cell thermodynamics Nuclear, ocean, MHD	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a>
14			thermoelectric and geothermal energy applications; Origin and their types	<a href="https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details">https://classroom.google.com/c/MTUyODU4NzEzMTQ0/m/MjM3Nzc2MjYwNzU4/details</a>
15			December-IV Week	Working principles, Zero energy Concepts

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<b>Academic Year: 2020-2021</b>		<b>Semester: VII</b>		<b>Course: Fluid Power System</b>		<b>Course Code: 17ME72</b>	
<b>Serial No:</b>	<b>Date</b>	<b>Module</b>	<b>Topics Covered</b>	<b>Material link (Video/ppt/Notes/ Question Bank)</b>			
1	December- Week-I	Module -3	Components:Classification of control valves, Directional Control Valves-symbolic representation, constructional features of poppet, sliding spool,	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>			
2			Rotary type valves solenoid and pilot operated DCV, shuttle valve, and check valves. Pressure control valves - types, direct operated types and pilot operated types.	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>			
3			Flow Control Valves - compensated and non-compensated FCV, needle valve, temperature compensated, pressure compensated, pressure and temperature compensated FCV, symbolic representation. Hydraulic Circuit	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>			
				<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>			
4	December- Week-II		Design:Control of single and Double -acting hydraulic cylinder, regenerative circuit, pump unloading circuit, double pump hydraulic system, counter balance valve	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>			

5			Application hydraulic cylinder sequencing circuits, cylinder synchronizing circuit using different methods, hydraulic circuit for force multiplication; speed control of hydraulic cylinder	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>
6			Metering in, metering out and bleed off circuits. Pilot pressure operated circuits. Hydraulic circuit examples with accumulator.	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMTUy/details</a>
7		Module -4	Introduction to Pneumatic systems: Pneumatic power system, advantages, limitations, applications, Choice of working medium.	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>
8			Characteristics of compressed air and air compressors. Structure of pneumatic control System, fluid conditioners-dryers and FRL unit.	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>
9	December-Week-III		Pneumatic Actuators: Linear cylinder –types of cylinders, working, end position cushioning, seals, mounting arrangements, and applications.	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>
				<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>
10	December-Week-IV		Rotary cylinders- types, construction and application, symbols. Pneumatic Control Valves: DCV such as poppet, spool,	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>

11			Suspended seat type slide valve, pressure control valves, flow control valves, types and construction, use of memory valve	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>
12			Quick exhaust valve, time delay valve, shuttle valve, twin pressure valve, symbols,	<a href="https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details">https://classroom.google.com/u/1/c/MTUyODgwNDUwMDgx/m/MjM4MDEyODgxMjc3/details</a>

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**Details of Online Classes**

Academic Year: 2020-2021		Semester: VII		Course: Control Engineering		Course Code: 17ME73	
Serial No:	Date	Module	Topics Covered	Material link (Video/ppt/Notes/ Question Bank)			
1	December-I Week	Module -3	Steady state analysis for general block dia. for a control system,.	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
2			steady state characteristics, equilibrium in a system	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
3			Transient response of unit step input, general operational representation for differential equation control system	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
4			GOR for repeated and complex conjugate zero	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
5			Numericals on RH criteria	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
6			Root locus method – significance , angle and magnitude condition	<a href="https://www.youtube.com/watch?v=sUDoTw_LIbk">https://www.youtube.com/watch?v=sUDoTw_LIbk</a> <a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
7			Break away points, angle of departure and arrival, lead and lag compensation	<a href="https://www.youtube.com/watch?v=o3bRqh4IICA">https://www.youtube.com/watch?v=o3bRqh4IICA</a> <a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>			
8			Construction of root locus using general rules	<a href="https://www.youtube.com/watch?v=4cMHfTsPz3M&amp;list=PLgwJf8NK-2e78NzXFirvPmyRzH_JE53tW">https://www.youtube.com/watch?v=4cMHfTsPz3M&amp;list=PLgwJf8NK-2e78NzXFirvPmyRzH_JE53tW</a>			
9			December-II Week	Numericals on root locus	<a href="https://www.youtube.com/watch?v=ww9rHEAwTnE">https://www.youtube.com/watch?v=ww9rHEAwTnE</a> <a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>		

10			Numericals on root locus	<a href="https://www.youtube.com/watch?v=MaZLSmUdV0s">https://www.youtube.com/watch?v=MaZLSmUdV0s</a>
11	December-III Week	Module -5	Series and feedback compensation	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>
12			Introduction to state concepts , state equations of continus data system	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a> <a href="https://www.youtube.com/watch?v=BgaTRpitlGY">https://www.youtube.com/watch?v=BgaTRpitlGY</a>
13			Matrix representation of state equation	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a> <a href="https://www.youtube.com/watch?v=xajgSUci9zs">https://www.youtube.com/watch?v=xajgSUci9zs</a>
14	Matrix representation of controllability		<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>	
15	System compensation and state variable		<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a> <a href="https://www.youtube.com/watch?v=KwRNIJgUzYA">https://www.youtube.com/watch?v=KwRNIJgUzYA</a>	
16	Matrix representation of observability		<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>	
17	December-IV Week		Kalman and gilbert test	<a href="https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w">https://drive.google.com/drive/folders/1DiSX8PQAU19AFNSTBKbJvuXFjAnlEv3w</a>

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**Department of Mechanical Engineering**  
**Details of Online Classes**

Academic Year: 2020-2021		Semester: VII		Course: Tribology		Course Code: 17ME742	
Serial No:	Date	Module	Topics Covered	Material link (Video/ppt/Notes/ Question Bank)			
1	December Week-I	Module 4	<b>Plane Slider Bearings With Fixed/Pivoted Shoe:</b> Pressure Distribution, Load Carrying Capacity	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a> <a href="https://www.youtube.com/watch?v=6gVpC-PgcZg">https://www.youtube.com/watch?v=6gVpC-PgcZg</a>			
2			Coefficient Of Friction, Frictional Resistance In A Fixed/Pivoted Shoe Bearing, Center Of Pressure,	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>			
3			Numerical Examples	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>			
4			Numerical Examples	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>			
5	December-Week-II	Module 4	<b>Hydrostatic Lubrication:</b> Introduction To Hydrostatic Lubrication	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a> <a href="https://www.youtube.com/watch?v=wdUsD77pN5M">https://www.youtube.com/watch?v=wdUsD77pN5M</a>			
6			Hydrostatic Step Bearings, Load Carrying Capacity	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgi0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>			



				<a href="https://www.youtube.com/watch?v=YBxAa2fOWqk">https://www.youtube.com/watch?v=YBxAa2fOWqk</a>
7			Oil Flow Through The Hydrostatic Step Bearing, Numerical	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgj0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgj0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>
8			Numerical Examples	<a href="https://drive.google.com/drive/folders/1zdhkTVNTxuxhgj0ibgTNAJcAWX_jaduW?usp=sharing">https://drive.google.com/drive/folders/1zdhkTVNTxuxhgj0ibgTNAJcAWX_jaduW?usp=sharing</a> <a href="https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing">https://drive.google.com/drive/folders/1FA_yV4dPVvUAYeqvR3Fzc6iEwJtCP5PD?usp=sharing</a>
9	December-Week-III	Module 2	<b>Friction:</b> Origin, Friction Theories	<a href="https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing">https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing</a> <a href="https://www.tribonet.org/wiki/friction/">https://www.tribonet.org/wiki/friction/</a> <a href="https://www.youtube.com/watch?v=nk5gG1XP00w">https://www.youtube.com/watch?v=nk5gG1XP00w</a>
10			Measurement Methods, Friction Of Metals And Non-Metals	<a href="https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing">https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing</a> <a href="https://www.toppr.com/guides/chemistry/materials-metals-and-non-metals/metals-and-non-metals/">https://www.toppr.com/guides/chemistry/materials-metals-and-non-metals/metals-and-non-metals/</a> <a href="https://www.youtube.com/watch?v=M95rTLomCIU">https://www.youtube.com/watch?v=M95rTLomCIU</a>
11			<b>Wear:</b> Classification And Mechanisms Of Wear	<a href="https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing">https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing</a> <a href="https://professional.mit.edu/course-catalog/tribology-friction-wear-and-lubrication">https://professional.mit.edu/course-catalog/tribology-friction-wear-and-lubrication</a> <a href="https://www.youtube.com/watch?v=kZ3lJH-9p70">https://www.youtube.com/watch?v=kZ3lJH-9p70</a>
13	December-Week-IV		Delamination Theory, Debris Analysis	<a href="https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing">https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing</a> <a href="https://www.youtube.com/watch?v=VbJaPpH_zlU">https://www.youtube.com/watch?v=VbJaPpH_zlU</a> <a href="https://www.youtube.com/watch?v=yQ_GP5K_AXs">https://www.youtube.com/watch?v=yQ_GP5K_AXs</a>
14			Testing Methods And Standards. Related Case Studies.	<a href="https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing">https://drive.google.com/drive/folders/1mvlrDNwEUMW1cFAjfu-WnNRKitjfeXv9?usp=sharing</a>

**Yenepoya Institute of Technology**  
**Department of Mechanical Engineering**  
**Details of Online Classes**

<b>Academic Year: 2020-2021</b>		<b>Semester: VII</b>		<b>Course: Mechatronics</b>		<b>Course Code: 18ME753</b>	
<b>Serial No:</b>	<b>Date</b>	<b>Module</b>	<b>Topics Covered</b>	<b>Material link (Video/ppt/Notes/ Question Bank)</b>			
1	December- Week-I	Module -4	Mechanical actuation systems: Mechanical systems, types of motion	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
2			Cams, Gear trains, Ratchet & Pawl	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
3			belt and chain drives, mechanical aspects of motor selection	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
4			Electrical actuation systems: Electrical systems	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
5			Mechanical switches, Solenoids	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
6			Relays, DC-AC Motors	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
7			Principle of Stepper Motors	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
8			Servomotors	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
9	December- Week-II	Module -5	Pneumatic and hydraulic actuation systems: Actuating systems, Pneumatic and hydraulic systems	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
10			Classifications of Valves, Pressure relief valves	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
11			Pressure regulating-reducing valves	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			
12			Cylinders and rotary actuators.	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>			

			143UNTXHDB36EmBzHt3cCtWbK1h
13	December- Week-IV	DCV & FCV: Principle & construction details	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>
14		types of sliding spool valve,solenoid operated	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>
15		Symbols of hydraulic elements, components of hydraulic system, functions of various units of hydraulic system	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>
16		Design of simple hydraulic circuits for various applications.	<a href="https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h">https://drive.google.com/drive/folders/1_B2M-143UNTXHDB36EmBzHt3cCtWbK1h</a>