Id	Program	CourseCode	CourseName	COCode	со
	Mechanical		Elective - (Environmental		Environmental legislation and acts, EMS: ISO
1916	Engineering	6FECE05	Management)	CO4	14000
	Mechanical		Elective - (Environmental		
1916	Engineering	6FECE05	Management)	CO3	Prepare, certify approve and review of EMP
	Mechanical				To understand the importance of
1916	Engineering	6ME06	Communication Skills	CO1	communication skills as an engineer
	Mechanical				To developed skill of effective communication
1916	Engineering	6ME06	Communication Skills	CO3	among society
					To improve concept of technical
	Mechanical				communication as well as skill of
1916	Engineering	6ME06	Communication Skills	CO4	comprehension
	Mechanical				To understand the basic skill of language and
1916	Engineering	6ME06	Communication Skills	CO2	apply this skill in day to day life
	Mechanical				
1916	Engineering	6ME06	Communication Skills	CO5	To face job interviews and group discussions,
	Mechanical				To read and write technical reports, proposals,
1916	Engineering	6ME06	Communication Skills	CO6	research papers scientifically
					Identify environmental attributes to be
	Mechanical		Elective - (Environmental		considered for EIA study and methodology to
1916	Engineering	6FECE05	Management)	CO1	prepare EIA
					Described the components of EMP and
	Mechanical		Elective - (Environmental		pollution effects of disposal off industrial
1916	Engineering	6FECE05	Management)	CO2	effluent formulate EMP
	Mechanical				. Able to understand the superposition
1916	Engineering	6ME04	Theory of Machines-II	CO1	principal, lubrication and its effect on engine.
1916	Mechanical Engineering	4ME05	Machine Design & Drawing-I	CO4	Ability to draw and read production drawings. Also Ability to convert 3D object to its 2D representation. And. Ability to select standard machine elements as per the standards
					Ability to design power transmission
	Mechanical				components such as coupling, clutch, and
1916	Engineering	4ME05	Machine Design & Drawing-I	CO5	brake
1916	Mechanical Engineering	8ME04	Operations Research Techniques	CO4	Ability to understand the Classification, Characteristics, application and problems on Waiting line models and Sequencing.
1916	Mechanical Engineering	8ME04	Operations Research Techniques	CO2	Ability to understand the Classification, Characteristics, application and problems on Transportation Models and Assignment Models.
			· · · · ·	1	Ability to select the materials, cross-section,
	Mechanical			1	configuration & factor of safety to design any
1916	Engineering	4ME05	Machine Design & Drawing-I	CO2	machine elements
	Mechanical Engineering Mechanical	8ME04	Operations Research Techniques	CO1	Ability to understand the Classification, Characteristics, application and problems on Operations Research and Linear Programming. To design a control system or components to
1916	Engineering	6ME03	Control System Engineering	CO6	meet the desired needs
	_			1	Ability to understand the Classification,
	Mechanical			1	Characteristics, application and problems on
1	Engineering	8ME04	Operations Research Techniques	CO3	Network Models.

				1	Design of an annuariate machine alament like
					Design of an appropriate machine element like
					Shafts, Power screw, Springs, Flywheel,
					Leavers, Mechanical Joints, Pressure Vessels
					etc. by static and dynamic criterion, allowable
	Mechanical				load (under the given operating conditions),
1916	Engineering	4ME05	Machine Design & Drawing-I	CO3	manufacturing considerations
	Mechanical				Able to Understanding of engine Force analysis,
1016		CNIE04	Theory of Machines II	CO 2	
1910	Engineering	6ME04	Theory of Machines-II	CO2	dynamic equivalent system of connecting rod.
1010	Mechanical				Ability to design rolling contact bearings and
1916	Engineering	4ME05	Machine Design & Drawing-I	CO6	sliding contact bearings
					Ability to understand the Classification,
	Mechanical				Characteristics, application and problems on
1916	Engineering	8ME04	Operations Research Techniques	CO5	Replacement models and Simulation.
	Mechanical				To apply the knowledge of Static & dynamic
1916	Engineering	6ME04	Theory of Machines-II	CO5	Balancing of Machine parts.
					Able to understand vibration and its types. The
	Mechanical				balancing of Rotating masses, single cylinder
1916	Engineering	6ME04	Theory of Machines-II	CO4	engine and multi cylinder engine.
					Ability to understand the Classification,
	Mechanical				Characteristics, application and problems on
1916	Engineering	8ME04	Operations Research Techniques	CO6	Dynamic Programming.
	Mechanical				Able to Student must understand the
1916	Engineering	6ME04	Theory of Machines-II	соз	gyroscopic effects and vehicle dynamics.
		0.01201			Ability to understand the basic knowledge of
					flow diagram for steam power plant with basic
	Mechanical				units such as steam generator, turbine,
1016		414502		602	_
1910	Engineering	4ME03	Energy Conversion-I	CO2	condenser and pump
					Ability to understand and analyze the
	Mechanical		Elective - Refrigeration & Air		thermodynamics of refrigeration, air
1916	Engineering	8ME02	conditioning	CO3	conditioning and cryogenics systems.
	Mechanical				
1916	Engineering	4ME03	Energy Conversion-I	CO1	Ability to understand Properties of Steam
	Mechanical		Elective - Refrigeration & Air		Ability to design the air duct system as per the
1916	Engineering	8ME02	conditioning	CO4	requirement of air conditioning application.
		0.11202			Ability to learn the function and principle of
	Mechanical		Elective - Refrigeration & Air		various components and controls of
1010	Engineering	8ME02	_	CO5	
1910	LURINGELIUR	OIVIEUZ	conditioning	0.05	refrigeration and air conditioning systems.
	Maahanisal				Ability to understand fuel & ash handling
1010	Mechanical	414502		602	system and steam nozzle and basic knowledge
1919	Engineering	4ME03	Energy Conversion-I	CO3	of steam power plant
					To incorporate working principle of steam
					condensers and its other functioning units
					applying its basic knowledge in efficiency
	Mechanical				calculations and analysis of cogeneration
1916	Engineering	4ME03	Energy Conversion-I	CO4	concept
	Mechanical				Ability to identify and differentiate between
1916	Engineering	8ME03	I.C. Engines	CO1	various types of engines and their applications.
1,10	LIGHICCHING				To formulate nozzle efficiency, critical pressure
					ratio, maximum discharge in context with
4040	Mechanical	414500		607	nozzles and diffusers used in power generation
1916	Engineering	4ME03	Energy Conversion-I	CO5	domain

1916 Engineering BME03 I.C. Engines CO2 parameters affecting performance of engine in turbines graphically and understanding efficiency calculations 1916 Engineering 4ME03 Energy Conversion-I CO6 Adulty and understanding efficiency calculations 1916 Engineering BME03 I.C. Engines CO3 systems and sub-systems of engine. Mechanical Mechanical Manufacturing Process - II CO3 systems and sub-systems of engine. Mechanical Mechanical Manufacturing Process - II CO3 Milling M/c and Boring M/c operation Mechanical Mechanical Control System Engineering CO2 markines Able to understand various time response anal and understand technique of compensation system response. Mechanical Mechanical Manufacturing Process - II CO2 markines 1916 Engineering AME04 Manufacturing Process - II CO2 markines 1916 Engineering GME03 Control System Engineering CO1 the system Able to convert physical model into physic system and then formulating the approprime mathematical model and converting mathematical model into block diagram /s flow graph and then find transfer function mathematical model into block diagram /s		1				
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1916 Engineering 6ME03 Control System Engineering CO3 analysis of system. Select an appropriate grinding and super						Able to understand the concept of root locus
Select an appropriate grinding and super		Mechanical	1			BODE plots Nyquist plots for design and
	1916	Engineering	6ME03	Control System Engineering	CO3	analysis of system.
						Select an appropriate grinding and super
I prechanical I		Mechanical	1			finishing operation to obtain required precision
1916 Engineering 4ME04 Manufacturing Process - II CO4 and accuracy	1916	Engineering	4ME04	Manufacturing Process - II	CO4	and accuracy
Mechanical Elective - (Basic Building activities at the time Examine various		Mechanical				activities at the time Examine various
1916 Engineering 5FECE05 Construction) CO2 construction of actual execution.	1916	Engineering	5FECE05		CO2	construction of actual execution.
Mechanical To analyze the exhaust pollutants, its caus		Mechanical				To analyze the exhaust pollutants, its causes
1916 Engineering 8ME03 I.C. Engines CO6 and describe methods to reduce them.	1916	Engineering	8ME03	I.C. Engines	CO6	
						To analyze the stability of systems using Root
1916 Engineering 6ME03 Control System Engineering CO4 Locus and Bode Plots			c			

					To classify the various types of unconventional
	Mechanical				machining processes and to describe their
1916	Engineering	4ME04	Manufacturing Process - II	CO6	working principle and application
	Mechanical		Elective - (Basic Building		Know the properties of various construction
1916	Engineering	5FECE05	Construction)	CO3	materials
	Mechanical		Elective - (Basic Building		Identify and select the quality materials for
1916	Engineering	5FECE05	Construction)	CO4	construction activities.
	Mechanical		,		To describe the concept of transient response
1916	Engineering	6ME03	Control System Engineering	CO5	and steady state error.
	Mechanical				Ability to define various failure modes of
1916	Engineering	4ME05	Machine Design & Drawing-I	CO1	machine elements
					Ability to understand the various systems and
	Mechanical				mechanisms used for special / single purpose
1916	Engineering	7ME01	Machine Design & Drawing-II	CO1	machines.
	Mechanical				Ability to apply the principles of signal
1916	Engineering	5ME03	Measurement Systems	CO3	conditioning to measurement instruments
	<u> </u>		, ,		5
					Ability to identify various types of
					measurement systems, to understand their
					characteristics, to apply the principles of
					uncertainty to data analysis from instrument
					measurement of a variety of properties and
	Mechanical				analyze the response of instruments that are
1916	Engineering	5ME03	Measurement Systems	CO1	zero, first and second order systems.
					To describe the working principle and
	Mechanical				application of various welding processes and
1916	Engineering	3ME05	Manufacturing Process-I	CO6	surface treatment processes.
	Mechanical		-		
1916	Engineering	3ME05	Manufacturing Process-I	CO5	To Explain various joining processes.
	Mechanical				To describe working principle and application
1916	Engineering	3ME05	Manufacturing Process-I	CO4	of various deforming processes.
					To explain the causes and remedies of casting
	Mechanical				defects, inspection and testing of casting
1916	Engineering	3ME05	Manufacturing Process-I	CO3	process.
	Mechanical				To design and analyze the performance of heat
1916	Engineering	5ME02	Heat Transfer	CO6	exchangers using NTU and LMTD methods
	Mechanical				To Explain various melting furnaces and other
1916	Engineering	3ME05	Manufacturing Process-I	CO2	casting processes
					To apply Laplace Transformation to special
	Mechanical				functions & solve second order differential
1916	Engineering	3ME01	Mathematics-III	CO2	equation with constant coefficients
					To predict heat transfer coefficients for forced
	Mechanical				and free convection heat transfer applied to
1916	Engineering	5ME02	Heat Transfer	CO5	internal and external flow conditions
					To describe the concept of pattern, pattern
	Mechanical				materials, pattern making allowances and
1916	Engineering	3ME05	Manufacturing Process-I	CO1	terminology of sand casting process.
	Mechanical				Be conversant with basics of compressible fluid
1916	Engineering	3ME04	Engineering Thermodynamics	CO6	flow
	0 0				
	0 0				Ability to understand the heat exchangers their
	Mechanical				Ability to understand the heat exchangers their practical application, design and performance

	Mechanical				Be acquainted with analysis of Gas power
1916	Engineering	3ME04	Engineering Thermodynamics	CO5	cycles, including Otto, Diesel, and Dual cycles
	Mechanical				Ability to Gain knowledge of thermodynamic
1916	Engineering	3ME04	Engineering Thermodynamics	CO4	properties of steam.
					Ability to understand a mathematical approac
	Mechanical				to analyze and solve the numerical on comple
1916	Engineering	5ME02	Heat Transfer	CO3	heat transfer phenomena's.
	Mechanical				To design and analyze the hydraulic
1916	Engineering	3ME03	Fluid Power-I	CO5	performance of the piping system
					Appreciate the understanding that how
	Mechanical				thermodynamic relations are used in
1916	Engineering	3ME04	Engineering Thermodynamics	CO2	evaluation of thermodynamic properties
					Ability to understand the concept and
					mechanism of forced, natural convection,
					radiation and also the various empirical
	Mechanical				correlations used in different fluid flow
1916	Engineering	5ME02	Heat Transfer	CO2	situations.
	Mechanical				Ability to know thermodynamic properties of
1916	Engineering	3ME04	Engineering Thermodynamics	CO3	ideal gases mixtures
					Ability to understand basic modes of heat
					transfer conduction with and without internal
					heat generation, critical thickness of insulation
	Mechanical				and extended surfaces with the practical
1916	Engineering	5ME02	Heat Transfer	CO1	utilities.
					Ability to understand the basic laws of
	Mechanical				thermodynamics and their applications to
1916	Engineering	3ME04	Engineering Thermodynamics	CO1	thermodynamics systems
	Mechanical				To determine impact of jet and apply theory t
1916	Engineering	3ME03	Fluid Power-I	CO6	design turbines.
	Mechanical				Use of appropriate measuring devices for fluid
1916	Engineering	3ME03	Fluid Power-I	CO4	flow through duct, pipes and reservoirs
					To develop understanding of laws of static
	Mechanical				fluid, kinematics and dynamics of fluid in
1916	Engineering	3ME03	Fluid Power-I	CO3	motion
	Mechanical				To apply dimensional analysis technique to
1916	Engineering	3ME03	Fluid Power-I	CO2	fluid flow problems
					To analyze and design structural members
					subjected to tension, compression, torsion,
					bending and combined stresses using the
	Mechanical				fundamental concepts of stress, strain and
1916	Engineering	3ME02	Mechanics of Materials	CO6	elastic behavior of materials
	Macharita				To apply basic laws of fluid mechanics and use
1010	Mechanical Engineering	214502	Eluid Power I	CO1	various measurement techniques in fluid flow
1916	Engineering	3ME03	Fluid Power-I	.01	system
	Mechanical				Ability to calculate stresses and deformation of
1916	Engineering	3ME02	Mechanics of Materials	CO5	a torsional bar, pressure vessels.
					Ability to understand Stability and buckling
	Mechanical				phenomena for a slender member under an
	Engineering	3ME02	Mechanics of Materials	CO4	axial compressive force.

		1		1	1
1916	Mechanical Engineering	3ME02	Mechanics of Materials	CO3	Ability to develop shear-moment diagrams of a beam and find the maximum moment/ shear and their locations, how to calculate normal and shear stresses on any cross-section of a beam and how to calculate deflections of a beam under combined loads
					Ability to calculate stresses and deformation due to an axial loading and combined loading,
	Mechanical				use of Mohr's circle to calculate principal
1916	Engineering	3ME02	Mechanics of Materials	CO2	stresses and angles in plane stress cases
					To use Gradient of a scalar point function,
1916	Mechanical Engineering	3ME01	Mathematics-III	CO6	Divergence and Curl of a vector point function and their physical meaning, Stokes and Divergence theorem.
					Ability to understand basic concepts of stress,
					strain and their relations based on linear
	Mechanical				elasticity, Material behaviors due to different
1916	Engineering	3ME02	Mechanics of Materials	CO1	types of loading.
					To apply numerical methods to obtain
	Mechanical				approximate solutions of mathematical
1916	Engineering	3ME01	Mathematics-III	CO5	problems
					To apply the fundamental concepts of Ordinary
	Mechanical				Linear Differential Equation by different
1916	Engineering	3ME01	Mathematics-III	CO1	methods
					To apply CR conditions, Cauchy's Integral
	Mechanical				Theorem, Singularity, expansion of function by
1916	Engineering	3ME01	Mathematics-III	CO4	using Taylor's and Laurent's Series
					To solve first higher order Partial Differential
1010	Mechanical	204504		CO 2	Equations, Lagrange's Equation, Statistics and
1916	Engineering	3ME01	Mathematics-III	CO3	Probability Distributions
	Maahaniaal				To compare the various tachometers and
1016	Mechanical	5ME03	Manager amont Systems	CO6	measure speed of motors or rotating shafts by
1910	Engineering Mechanical	SIVIEUS	Measurement Systems	006	using tachometers.
1016	Engineering	7ME01	Machine Design & Drawing-II	CO4	To design spur, helical, bevel and worm gears.
1910	Mechanical	7101201		04	Ability to identify and classify different types of
1916	Engineering	8ME01	Elective - Automobile Engineering	CO1	automobiles.
	21181110011118	0.01201		001	Ability to operate instruments and
					measurement systems to measure the
	Mechanical				properties of Temperature, viscosity, pressure,
1916	Engineering	5ME03	Measurement Systems	CO2	flow, strains etc.
	Mechanical		· ·		To design I.C. Engine parts Cylinder, Piston,
1916	Engineering	7ME01	Machine Design & Drawing-II	CO5	Connecting rod and Crank.
		1		1	Ability to work in team to analyze
	Mechanical				measurements and to use software and
1916	Engineering	5ME03	Measurement Systems	CO5	hardware for automated Data acquisition.
	Mechanical				Ability to understand the selection of hydraulic
1916	Engineering	7ME01	Machine Design & Drawing-II	CO3	/ pneumatic drive and electrical control system.
					Ability to analyze the various components of
	Mechanical				mechanisms on basis of machine design
1916	Engineering	7ME01	Machine Design & Drawing-II	CO2	principles.

		1	Γ	1	Ability to write reports describing experimental
	Mechanical				setups, data collection, data analysis and data
	Engineering	5ME03	Measurement Systems	CO4	Presentation.
1910	Linginieering	SIVIEUS		04	
	Mechanical				To understand design and drawing procedure
	Engineering	7ME01	Machine Design & Drawing-II	CO6	of Governor ((Parts and Assembly).
1910	Linginieering	7101201		000	
					Ability to understand the concept of various
	Mashaniaal				Ability to understand the concept of various
	Mechanical		Due du etie a Techa e le su	c01	types of Quality, Normal distribution curve,
1916	Engineering	5ME01	Production Technology	CO1	sampling plan, universe and population.
	Marahan ing I				To apply knowledge of fluid mechanics, to
	Mechanical				understand effect of hydrodynamic force on
1916	Engineering	6ME01	Fluid Power-II	CO1	various types of vanes.
					Ability to understand the basic principle,
	Mechanical				working and construction of angular and gear
1916	Engineering	5ME01	Production Technology	CO2	measurement.
					Ability to understand the working of various
	Mechanical				automobile sub-systems such as engines,
1916	Engineering	8ME01	Elective - Automobile Engineering	CO2	transmission, suspension, braking etc.
	Mechanical				Ability to understand and apply basic principle
1916	Engineering	5ME01	Production Technology	CO4	of work study.
					Ability to understand the concepts of various
					old and eco-friendly refrigerants with their
					environmental impact and select the most
	Mechanical				appropriate to design the cooling system for
1916	Engineering	7ME02	Energy Conversion-II	CO2	particular application.
	Mechanical				Ability to understand the principle working of
1916	Engineering	5ME01	Production Technology	CO5	various types of comparators.
	Mechanical				Student understand the basic knowledge of gas
1916	Engineering	7ME02	Energy Conversion-II	CO3	turbine and nuclear power
	Mechanical				Ability to understand the standards of
1916	Engineering	5ME01	Production Technology	СОЗ	measurements.
	0 0				To prepare the graduate with knowledge of
	Mechanical				industrial based reciprocating air compressor
	Engineering	7ME02	Energy Conversion-II	CO1	and rotary compressor.
	Mechanical				Knowledge about the emission norms, and
1916	Engineering	8ME01	Elective - Automobile Engineering	CO3	passenger safety in automobiles
1010	2118111001118	0111201			Applying acquired knowledge to design and
	Mechanical				performance characteristics of hydraulic
	Engineering	6ME01	Fluid Power-II	CO2	turbines.
	Mechanical	SIVILUI		0.02	To explain working of gas Turbine power plants
	Engineering	7ME02	Energy Conversion-II	CO4	and jet propulsion methods.
	Mechanical			04	To describe different types of gauge used in
		EME01	Production Technology	CO6	
	Engineering	5ME01	Production Technology	CO6	quality control department
	Mechanical	014504		CO 1	Knowledge about the recent advancements in
	Engineering	8ME01	Elective - Automobile Engineering	CO4	automobiles.
	Mechanical	L			To describe the working of nuclear power plant
1916	Engineering	7ME02	Energy Conversion-II	CO5	and its components.
					To explain various renewable energy sources
					like solar, wind, biomass, MHD, Geothermal
	Mechanical				etc. and their importance for present energy
1916	Engineering	7ME02	Energy Conversion-II	CO6	scenario.

					
					Get knowledge about entrepreneurship, traits
	Mechanical		Industrial Management and		and competencies for the same and the factors
1916	Engineering	7ME03	Costing	CO4	affecting entrepreneurial growth.
	Mechanical				Understand the different laws of electric and
1916	Engineering	4ME01	Basic Electrical Drives & Control	CO1	magnetic circuits
	Mechanical		Industrial Management and		Get knowledge about the steps involved in
1916	Engineering	7ME03	Costing	CO5	setting up a business.
	Mechanical		Industrial Management and		Understand the functions of personnel
1916	Engineering	7ME03	Costing	CO2	management and the related legislations
		7101203		002	Know the different types of production system
	Mechanical		Industrial Management and		and the concept of production planning and
1916	Engineering	7ME03	Costing	CO3	control
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Get knowledge about evolution of
	Mechanical		Industrial Management and		management thoughts and the principles of
1916	Engineering	7ME03	Costing	CO1	scientific management.
	Mechanical	////203		001	Understand displacement velocity and
1016	Engineering	5ME04	Theory of Machines-I	CO2	acceleration analysis of planar linkages.
1510	Mechanical	5101204		02	Drives wide range of availability and their
1016	Engineering	4ME01	Basic Electrical Drives & Control	CO4	importance in Mechanical Engineering
1910	Engineering	4111201	Basic Electrical Drives & Control	04	Ability to understand the FMS systems in
	Mechanical				industry and Group Technology, process
1016	Engineering	7ME04	Automation Engineering	CO3	planning
1910	Mechanical	7101E04	Automation Engineering	COS	
1016			Theory of Machines I	CO1	Understand Kinematic pair, diagrams and inversion of mechanism.
1910	Engineering	5ME04	Theory of Machines-I	CO1	
1010	Mechanical	714504		604	Student must have the knowledge of CIM
1910	Engineering	7ME04	Automation Engineering	CO4	wheel.
1010	Mechanical	414501	Desis Flastrical Drives & Control	COL	To describe the construction, principle and
1910	Engineering	4ME01	Basic Electrical Drives & Control	CO5	function of various instruments
					Evaluin the exerction of stearing evaluation and
	Mechanical				Explain the operation of steering system and
1016		9N/E01	Elective Automobile Engineering	COF	braking systems, also apply the knowledge for
1910	Engineering	8ME01	Elective - Automobile Engineering	CO5	Fault finding and maintenance of brakes.
					Make use of concept of similitude and model
					testing for hydraulic machine Outline of
1010	Mechanical	CN 4504		605	hydraulic and pneumatic circuit to control and
1910	Engineering	6ME01	Fluid Power-II	CO5	effective use of fluid energy.
1010	Mechanical	714504		600	Student must have the knowledge of NC/CNC
1916	Engineering	7ME04	Automation Engineering	CO2	programming and used of robots in industry
					Learn and understand construction, principle,
					applications and performance evaluation
	Mechanical	40.000			methods of transformer, D.C. Machine,
1916	Engineering	4ME01	Basic Electrical Drives & Control	CO2	Induction Motor
	Mechanical				To describe working of miscellaneous water
1916	Engineering	6ME01	Fluid Power-II	CO4	lifting devices
	Mechanical		Industrial Management and		Get overview of the marketing function and the
1916	Engineering	7ME03	Costing	CO6	various sources of finance.
					Ability to understand the concept of Data base
	Mechanical				management system (DBMS), Relational
1916	Engineering	6ME02	Computer Software Applications	CO1	Databases, Database design and the E-R model
	Mechanical				Student must know the importance of
1916	Engineering	7ME04	Automation Engineering	CO1	automation in modern industry and its types

	Mechanical				Can understand the Implementing concept of
	Engineering	4ME01	Basic Electrical Drives & Control	CO3	Drive
1510	Lingineering	4101201		05	To design and evaluate performance
	Mechanical				characteristics of centrifugal and reciprocating
	Engineering	6ME01	Fluid Power-II	CO3	
	Mechanical	OIVILUI		05	pump
			Desis Electrical Drives & Control	coc	To classify the various duty cycles for different
	Engineering	4ME01	Basic Electrical Drives & Control	CO6	industrial applications
	Mechanical				Dimensional synthesis for motion, path and
1916	Engineering	5ME04	Theory of Machines-I	CO3	function generation
					Understand special purpose mechanism,
					dynometer and friction in bearings, clutch and
	Mechanical				brakes Cam profile synthesis. Gears and gear
1916	Engineering	5ME04	Theory of Machines-I	CO4	trains.
					Describe the Suspensions and Lubrication in
					Automobile, and apply knowledge for solving
	Mechanical				Engine lubrication troubles and suggesting
1916	Engineering	8ME01	Elective - Automobile Engineering	CO6	remedies.
					Understand the fundamentals of various
	Mechanical				engineering materials and their crystal
1916	Engineering	4ME02	Engineering Metallurgy	CO1	structure
	Mechanical		Elective - Non Conventional Energy		List and describe the primary renewable energy
1916	Engineering	7ME05	Sources	CO1	sources, their feasibility and challenges.
	Mechanical		Elective - Non Conventional Energy		Perform elementary mathematical analysis for
1916	Engineering	7ME05	Sources	CO2	designing of different solar thermal collectors
	Mechanical				To implement the basics of SQL and various
	Engineering	6ME02	Computer Software Applications	CO4	SQL operations.
	0 0				
	Mechanical				To select appropriate gears for transmitting the
	Engineering	5ME04	Theory of Machines-I	CO6	power for required power and gear ratio.
	Mechanical				Understand the basic knowledge of Modeling
	Engineering	6ME02	Computer Software Applications	CO3	and Simulation
	88	0			Explain the composition, microstructure,
	Mechanical				properties and application of alloy steel, tool
	Engineering	4ME02	Engineering Metallurgy	CO4	steel and cast iron
1510	Lingineering	4101202		04	
					Interpret and explain the equilibrium diagram
	Mechanical				and make use of this knowledge to illustrate
1016	Engineering	4ME02	Engineering Metallurgy	CO2	the Iron carbide equilibrium diagram
1910	Mechanical	4101202		02	Understand special purpose of Structured
1016	Engineering	6ME02	Computer Software Applications	CO2	Query Language (SQL)
		UNILUZ		002	To design the cam profile and to select proper
	Mechanical		Theory of Machines	COF	
	Engineering	5ME04	Theory of Machines-I	CO5	cam and follower mechanism
	Mechanical	414500	For size a science b (t. 1).	602	Realize the significance and general procedure
1916	Engineering	4ME02	Engineering Metallurgy	CO3	of heat treatment processes
					Describe different types and components of
					wind energy conversion systems and can
	Mechanical		Elective - Non Conventional Energy		analyze wind speed data and wind turbine
1916	Engineering	7ME05	Sources	CO3	performance in a given wind regime
	Mechanical				To explain features of relational design along
1916	Engineering	6ME02	Computer Software Applications	CO5	with various types of dependencies.
	Mechanical				Understand the fundamentals of various non-
	Engineering			CO5	ferrous alloys and powder metallurgy

					Ability to understand the concepts of various old and eco-friendly refrigerants with their environmental impact and select the most
	Mechanical		Elective - Refrigeration & Air		appropriate to design the cooling system for
1916	Engineering	8ME02	conditioning	CO1	particular application.
					Describe components and principles of other
					renewable systems like biomass, biogas, ocean
	Mechanical		Elective - Non Conventional Energy		energy conversion systems, geothermal
1916	Engineering	7ME05	Sources	CO4	systems etc
	Mechanical				To explain the methods of surface hardening
1916	Engineering	4ME02	Engineering Metallurgy	CO6	and process of powder metallurgy
					Ability to analyze the psychometric processes &
					carry out heat load calculations for designing
	Mechanical		Elective - Refrigeration & Air		the air conditioning system of a specific
1916	Engineering	8ME02	conditioning	CO2	problem.
	Mechanical				To explain the models, languages, packages &
1916	Engineering	6ME02	Computer Software Applications	CO6	modeling and simulation techniques.