DEPARTMENT OF CIVIL ENGINEERING						
ACADEMIC YEAR 2022-2023 ODD SEMESTER						
COURSE OUTCOMES SUMMARY						
Semester : III SEM Autonomous						
S.no	Semester	Course	Course Name	Course Instruct	COURSE OUTCOMES	
					Co No	Course Outcome
1	III	2BS303HS	Mathematics-III	Mr. Rama Krishna	CO1	Find the solution of algebraic and transcendental equations using numerical methods
					CO2	Apply numerical techniques to solve ordinary differential equations and definite integrals
					CO3	Apply numerical methods to interpolate values and fit different curves from given data
					CO4	Find solutions of first order linear and nonlinear partial differential equations.
					CO5	Apply the solution of partial differential equations to physical problems
2	III	2HS302HS	Managerial Economics & Financial	Mr. Shyam Sunder	CO1	Determine the responsibilities & decision making in the organization
					CO2	Describe various factors influencing demand & price in market
					CO3	Explain the principles of accounting and shall be able to prepare & solve problems in journal, ledger, trial balance & final accounts
					CO4	Analyse the financial statement and performance of the company
					CO5	Explain the capital structure & to take decision on selection of projects and long-term investment
3	III	2ES301CS	Programming for problem solving	Mrs. Shaziya Jabeen	CO1	Formulate simple algorithms for arithmetic and logical problem
					CO2	Implement conditional branching, iteration and recursion
					CO3	Decompose a problem into functions and synthesize a compute program using divide and conquer approach
					CO4	Use arrays, pointers, structures and file management to solve real world problems
					CO5	Apply programming to solve matrix addition and multiplication problems and searching and sorting problems
4	III	2PC301CE	Building Materials and Concrete Technology	Ms. P. Jyotsna	CO1	Differentiate between various building materials i.e., both conventional and smart building materials
					CO2	Illustrate the properties of concrete materials and procedures of their physical tests i.e., Cement, Aggregates, Adixtures, Reinforcing steel.
					CO3	Explain the process of plastering, pointing and damp proofing and mortars
					CO4	Demonstrate the properties of fresh Concrete & Hardened Concrete and understand the procedure for testing of concrete materials and on fresh and hardened concrete as per IS code
					CO5	Calculate the concrete mix proportions according to requirements of IS, BIS and ACI codes. Illustrate the characteristics of concrete.

S.no	Semester	Course	Course Name	Course Instruct	COURSE OUTCOMES	
					Co No	Course Outcome
5	III	2PC302CE	Solid Mechanics	Mr. P. Srikanth	CO1	APPLY the fundamental concepts of stress and strain in the analysis and design of axially loaded members
					CO2	ANALYSE the determinate beams to construct SFD and BMD
					CO3	DETERMINE the bending and shear stress distribution in beams and also the stresses in members subjected to combined axial and bending stresses.
					CO4	ANALYSE the compound stresses at a point and evaluate principal stress and EVALUTE stresses in cylindrical pressure vessels
					CO5	EVALUATE the stresses of circular members subjected to torsion and analyze different types of springs.
6	III	2PC303CE	Surveying	Mr. Shaik Mohammad Imran	CO1	Explain the concepts, working principles involved in basic as well as modern surveying equipments & technologies and also defines the concepts of horizontal and vertical curves.
					CO2	Apply the knowledge of surveying & levelling in calculating lengths, bearings, areas, Volumes, reduced levels, elevation differences, plot of a ground & scale of photographs.
					CO3	Apply the knowledge of theodolite and trigonometry in finding horizontal and vertical angles, heights of inaccessible points
					CO4	Make use of knowledge of curves concept in surveying, in setting out both horizontal and vertical curves for the purpose of roadway and railway alignment
					CO5	Analyse the amount of closing error of a traverse after finding out the omitted measurements in traverse and compute the missing data
7	III	2MC302HS	Essence of Indian Traditional	Mrs. Deepthi	CO1	Understand the concepts of Indian culture and Traditions and their importance
					CO2	Distinguish the Indian languages and literature
					CO3	Learn the philosophy of ancient, medieval and modern India.
					CO4	Acquire the information about the fine arts in India
					CO5	Know the contribution of scientists of different eras, interpret the concepts and the importance to protect intellectual property of the nation
8	III	2ES351CS	Programming for Problem Solving Laboratory	Mrs. Shaziya Jabeen	CO1	Choose appropriate data type for implementing programs in C language
					CO2	Design and implement modular programs involving output operations, decision making and looping constructs
					CO3	Apply the concept of arrays, pointers for implementing programs and string handling
					CO4	Design and implement programs to store data in structures and files
					CO5	Develop confidence for self education and ability for lifelog learning need for computer languages

S.no	Semester	Course	Course Name	Course Instruct	COURSE OUTCOMES	
					Co No	Course Outcome
	III	2PC351CE	Surveying Laboratory	Mr. Shaik Mohammad Imran	CO1	Demonstrate the working principles and handling procedures of basic surveying instruments like chain, cross staff in finding out linear measurements
					CO2	Demonstrate the levelling instruments and apply the knowledge of levelling in finding out the reduced levels of ground
					CO3	Demonstrate the working principles and handling procedures of theodolite, total station and Hand-held GPS
					CO4	Make use of surveying equipment in computing lengths, areas & bearings of given field work
					CO5	Apply the knowledge of trigonometrical levelling in finding out reduced levels of elevated objects which are both accessible and inaccessible points
10	III	2PC352CE	Concrete Technology Laboratory	Mrs. P. Prasanna Kumari & Mr. P. Srikanth	CO1	Determine the properties of cement of given cement sample and assess its suitability for use in construction
					CO2	Determine the properties of F.A. and C.A. samples to assess their suitability for use in construction works
					CO3	Determine the properties of C.A. samples to assess their suitability for use in construction work
					CO4	Measure the workability of concrete and recommend its suitability for structural works
					CO5	Determine the compressive strength of concrete cubes
					CO6	Conduct destructive and non-destructive tests to evaluate the quality and strength of concrete

DEPARTMENT OF CIVIL ENGINEERING						
ACADEMIC YEAR 2022-2023 EVEN SEMESTER						
COURSE OUTCOMES SUMMARY						
Semester : IV SEM Autonomous						
S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
1	IV	2HS403HS	Human Values and Professional Ethics	Mrs. A. L. Jayashree	CO1	Understand the significance of value inputs in a classroom and start applying them in their. life and profession.
					CO2	Assess their own ethical values and the social context of problems.
					CO3	Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual etc.
					CO4	Understand the role of a human being in ensuring harmony in society and nature.
					CO5	Distinguish between ethical and unethical practices and start working out the strategy to actualize a harmonious environment wherever they work.
2	IV	2ES403CS	Python Programming	Dr. Shaik Khaleel Ahamed	CO1	Examine Python syntax and semantics and be fluent in the use of python flow control and functions.
					CO2	Demonstrate proficiency in handling strings and file systems
					CO3	Create, run and manipulate python programs using core data structures like lists, tuples and dictionaries
					CO4	Interpret the concepts of object-oriented programming as used in python
					CO5	Created and animate a variety of shapes and develop an application with graphical user interface (GUI)
					CO6	Implement exemplary applications related to network programming, web services and databases in python
3	IV	2PC404CE	anics of Materials and Structures	Mr. P. Srikanth	CO1	Calculate the deflections of determinate beams due to transverse loads by various methods
					CO2	Evaluate the buckling/critical load of column for various end conditions using different theories.
					CO3	Analyse the beams subjected to unsymmetrical bending and compute the location of shear center for various sections.
					CO4	Determine the static and kinematic indeterminacy of indeterminate structures and analyse propped cantilever, fixed and continous beams usinf force method of analysis.

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
			Mech		CO5	Apply energy principle and various energy methods to analyse beams, indeterminate trusses and frames to find deflections and redundant forces.
4	IV	2PC405CE	Design of Reinforced Concrete Structures	Mrs. M. Mary Soujanya	CO1	Define the characteristic strength of materials and partial safety factors for load and materials & Explain the design philosophies of working stress method and Limit state method
					CO2	Apply the key concepts, theories and mathematical fundamentals to analyze and design the structural elements.
					CO3	Analyze the moment capacity of structural elements & design the structural elements for flexure, shear and torsion
					CO4	Examine the serviceability of structural elements
					CO5	Design simple structural members to be able to safely resist bending, shear, torsion, deflection and compression within the imposed factors of safety.
5	IV	2PC306CE	Fluid Mechanics	Dr. Bandita Naik	CO1	Illustrate the various properties of fluids and compute pressure using manometers
					CO2	Relate types of flows with the corresponding mathematical equations
					CO3	Apply principles of fluid Statics , dynamics and kinematics to make flow measurement calculations
					CO4	Make use of different fluid flow measuring devices.
					CO5	Apply dimensional analysis and model studies to fluid flow problems.
6	IV	2PC307CE	Hydrology	Ms. SHiphali Pretti Aind	CO1	Explain the interaction among various processes in the hydrologic cycle.
					CO2	Estimate net evaporation rate from waterbodies with free surface bodies
					CO3	Develop the rainfall- runoff relationship
					CO4	Analysis drawdown and yield in aquifers
					CO5	Design the flood for Water Resources Structures
7	IV	2MC403HS	onstitution of India	Ms. Deepthi	CO1	Have a general knowledge and back ground about the Constitution of India and its importance
					CO2	Will distinguish and understand the working of the Central, state and provincial levels of administration.
					CO3	Will be conscious about the fundamental duties, responsibilities and rights as an ideal citizen of India
					CO4	Will be able to perceive and interpret the functioning and distribution of resources between Centre and state.

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
			C		CO5	Have an awareness and relate to the existing hierarchy of the social structure, election process and Grievance redressal in a democracy.
8	IV	2PC453CE	Mechanics of Materials Laboratory	Mrs. M. Mary Soujanya	CO1	Appraise the behaviour of a ductile material under direct tension test, in addition to gaining knowledge on elastic properties of the material.
					CO2	Identify the hardness of various metals like brass, copper, aluminum etc
					CO3	Assess the flexural properties of beams (simply supported, cantilever and fixed) of different materials like wood, steel, copper, aluminum etc
					CO4	Interpret the application of tension and compression springs in practice to understand the properties like stiffness, capacity, shear modulus etc. of the springs
					CO5	Examine the impact properties of the materials and also energy absorption.
9	IV	2PC454CE	Building Drawing and Drafting Laboratory	Mr. Mohd Shahed Ali/ Ms. P. Jyotsna	CO1	Illustrate the basic principles of building planning and drawings as per codal provisions.
					CO2	Apply the tools of AUTOCAD software to prepare structural drawings of various building components.
					CO3	Develop plan, elevation and sectional drawings of residential buildings in AutoCAD software.
					CO4	Develop isometric views of Single storey.
					CO5	Develop isometric views of Double storey residential buildings.
10	IV	2ES453CE	Python Programming Lab	Dr. Shaik Khaleel Ahamed	CO1	Develop solutions to simple computational problems using Python programs
					CO2	Solve problems using conditionals and loops in Python
					CO3	Develop Python programs by defining functions and calling them
					CO4	Use Python lists, tuples and dictionaries for representing compound data
					CO5	Develop Python programs for GUI applications

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2022-2023 ODD SEMESTER

COURSE OUTCOMES SUMMARY

Semester : V SEM

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
1	V	PC409CE	Theory of Structures	Mr. P. Srikanth	CO1	DIFFERENTIATE the difference between statically determinate and indererminate structures.
					CO2	ANALYSE the given continous beam using slope deflection method, moment distribution method and Kani's method.
					CO3	ANALYSE the given portal frame using slope deflection method, moment distribution method and Kani's method.
					CO4	ANALYSE the given structure to draw SFD and BMD.
					CO5	ANALYSE the INFLUENCE LINE DIAGRAMS for the given simple beam with constant loading.
					CO6	ANALYSE the INFLUENCE LINE DIAGRAMS for the given simple beam and trusses with moving loads.
2	V	PC410CE	Soil Mechanics	Ms. M. Madhuri	CO1	Classify the soil and interpret their index properties.
					CO2	Explain capillarity and laboratory procedure to determine the permiablility parameters. Calculate the capillarity and permeability parameters of soils.
					CO3	Explain the stresses in the soil and draw to flow net to compute the seepage quantity in soils.
					CO4	Illustrate the mechanisms of the process of compaction and consolidation of soils, and the laboratory procedures to determine their characteristics
					CO5	Analyse the soils for their shear strength and predict the stability of slopes.
					CO6	Explain the concept of Quick Sand Phenomena and its remedial measures
3	V	PC411CE	Concrete Technology	Mrs. Mary Soujanya	CO1	Explain the properties of cement and admixtures as per IS code.
					CO2	Explain the properties of aggregates as per IS code
					CO3	Illustrate the properties of fresh Concrete.
					CO4	Examine the properties of Hardened Concrete
					CO5	Use the codal provisions for the preparing required concrete mix.
					CO6	Demonstrate specific application of special concretes
4	V	PC412CE	Water Resource Engineering	Dr. Bandita Naik	CO1	Illustrate different types of storage works , fixation of different levels of reservoirs and evaporation reduction techniques (LWL, FRL, MWL).
					CO2	Distinguish between the types of dams, irrigation tanks, spillways and spillway crest gates
					CO3	Design different types of Storage works Applying
					CO4	Analyze the structural stability of different storage works
					CO5	Apply the Design of regulatory systems
					CO6	Select the factors leading to the assessment of waterpower potential and layout of a hydel plant
			al		CO1	Identify the sources of water and estimate the water quality

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
5	V	PC413CE	Environment Engineering	Ms. Shipali Preeti Aind	CO2	Determine the water demand for different cities and Design the water supply network
					CO3	Use the basic information in desiging the components of water treatment plant
					CO4	Determine the sewage flow using various approaches
					CO5	Explain the knowledge on Self purification of streams, BOD and COD
					CO6	Apply the basic concepts to design of septic tank, activated sludge tank and its components
6	V	PC414CE	Construction Engineering and Management	Mrs. Prasanna Kumari	CO1	Understand the Construction industry, construction practices and management systems to construction projects
					CO2	Apply various network theories such as PERT and CPM in construction management to construction projects
					CO3	Analyze cost time analysis, resource optimization techniques and apply project management software for resouce optimization in construction projects.
					CO4	Understand various types of contract documents, tenders, detailed project reports and labour acts in construction practice.
					CO5	Apply optimization techniques and linear programming in construction practice.
7	V	PC455CE	Soil Mechanics Lab	Mr. D. Bharath Naik	CO1	Determine the Index properties of Soil
					CO2	Determine the Atterberg's limits of fine grained Soil
					CO3	Identify and classify the soil
					CO4	Calculate the Permeability of Soils
					CO5	Determine the Engineering properties of Soil
					CO6	Determine the Shear Parameters of Soil by Direct Shear Test
8	V	PC456CE	Concrete Technology Lab	Mrs. Shaista Begum & Mrs. Mary Soujanya	CO1	Outline the importance of cement,aggregates and their properties
					CO2	Evaluate the different properties of cement
					CO3	Assess the different properties of Fine Aggregate
					CO4	Assess the different properties of Coarse Aggregate
					CO5	Evaluate the workabilty on fresh concrete
					CO6	Analyze the compressive strength of hardened concrete
9	V	PC457CE	Environmental Engineering Lab	Dr. K. Santosh Kumar & Ms. Shipali Preeti Aind	CO1	Determine physical, chemical and biological characteristics of water and wastewater
					CO2	Outline the procedure for preparations of stock and standard solutions,their handling and storage
					CO3	Determine break - point chlorination
					CO4	Assess the suitability of water for drinking, irrigation purpose and concreting works
					CO5	Determine the BOD, COD and bacterial density of portable water
					CO6	Assess the quality of water and wastewater

DEPARTMENT OF CIVIL ENGINEERING
ACADEMIC YEAR 2022-2023 EVEN SEMESTER
COURSE OUTCOMES SUMMARY

Semester : VI SEM

S.no	Semester	Course	Course	Course	COURSE OUTCOMES	
					Co No	Course Outcome
1	VI	HS104BM	Professional Practice Ethics	Mrs. Rubina Sultana	CO1	Explain the concepts, roles ,norms,bodies,regulations,contract Act and standards of Professional Practice.
					CO2	Apply the knowledge of professional,Business,Corporate, Engineering,Personal,Code of Ethics ,Professionalism,Gift vs Bribery, Whistle blowing.
					CO3	Apply the knowledge of the Arbitration ,Agreements,Types,Challenge,Court assistance,Conciliation,Lok Adalats.
					CO4	Make use of knowledge of Labour ,Related Laws,Sub contract,Industrial Dispute Act,Workmen's Compensation Act,RERA Act.
					CO5	Explain the conceptsof Intellectual property,Copyrights,Trademarks,Patents and Design ,Law and policy considerations.
2	VI	PC415CE	Design of Steel Structures	Mrs. Shaista Begum	CO1	Explain the composition of structural steel and IS codal provisions and load combinations implemented in the design codes for steel structures
					CO2	Analyze and design simple connections between structural members including riveted and welded connections.
					CO3	Analyze and Designof tension members
					CO4	Analyze and Design of compression members and beams
					CO5	Design of Gusset base and column bases
					CO6	Evaluate the loading on roof trusses and design of purlins
3	VI	PC416CE	Transportation Engineering	Ms. M. Madhuri	CO1	Demonstrate the basics elements of Highway, Pavement, Railway and airport engineering
					CO2	Explain geometric design of highways, flexible pavements, rigid pavemnts, railways and airport as per standard code books
					CO3	Demonstrate and Identify the traffic parameters and pavement material properties by conducting experiments.
					CO4	Explain design principles of highways, intersections, traffic signals, parking studies, pedestrian facilities, airport components
					CO5	Explain about airport layout, runway and taxiways, design and construction of permanent way of railways
					CO6	Analyze different stress conditions in rigid pavements

S.no	Semester	Course	Course	Course	COURSE OUTCOMES	
					Co No	Course Outcome
4	VI	PE501CE	Structural Analysis	Mr. P. Srikanth	CO1	**Analyse** the Arches, cables and suspension bridges for static and moving loads.
					CO2	**Analyse** the structure using flexibility matrix method to calculate redundant forces and sketch BMD and SFD.
					CO3	**Analyse** the structure using stiffness matrix method to calculate redundant forces and sketch BMD and SFD.
					CO4	**Develop** stiffness matrix using direct element method for indeterminate structures.
					CO5	**Demonstrate** the Structural analysis software packages.
					CO6	**Analyse** the frames using approximate method of analysis.
5	VI	PE506CE	Foundation Engineering	Mr. Shaik Mohammad Imran	CO1	**Define** theories related to stress distribution of soil, types of foundations and their various bearing capacities as well as settlements
					CO2	**Explain** Safe bearing capacity of shallow foundations, sinking and stability of well foundations
					CO3	**Explain** necessity, types, methods and suitability of pile foundations, caissons, coffer dams, geotechnical investigations and dewatering techniques
					CO4	**Make use of** theories and field tests to calculate vertical stresses and safe bearing capacity of shallow foundations
					CO5	**Make use of** load tests and formulae to calculate load carrying capacities & efficiency of pile and pile groups
					CO6	**Analyse** and calculate different settlements of shallow foundations using settlement analysis
6	VI	PE512CE	Infrastructure Engineering	Mr. Mohd Shahed Ali	CO1	**Defining** infrastructure engineering, economic zone and Compare urban infrastructure and
					CO2	**Explain** Infrastructure Privatization, Compare public and private sector role in infrastructure
					CO3	**Explaining** infrastructure planning and implementation, Identifing Risks related to
					CO4	**Asses** the Social & Environmental impacts due to infrastructure Projects. List the
					CO5	**Identify** the strategies for successful Infrastructure project implementation, Risk Management
					CO6	**Explain** Role of Government in infrastructure implementation.
7	VI	OE601EG	Soft Skills & Interpersonal Skills	Mr. M. L. Murty	CO1	To train the students in effective listening skills required for comprehending and performing the required tasks in Professional Communication
					CO2	To enable the students to develop the required speaking skills as per the necessary
					CO3	To equip the students with appropriate reading, comprehending & summarizing
					CO4	To develop professional writing & publishing varieties of documents and required skills
					CO5	5. To empower the students with the Right Attitude and Coping Techniques
					CO6	To inculcate potential skills in the learners to prepare them to deal with the external
		CE	ation g Lab	nth & canth	CO1	Identify the grade & properties of bitumen
					CO2	Create the awareness about various traffic studies in the field

S.no	Semester	Course	Course	Course	COURSE OUTCOMES	
					Co No	Course Outcome
8	VI	PC458C	Transportation Engineering	Mr. R. Srika Mr. P. Srik	CO3	Find out peak hour traffic & peak time for a given location on the road
					CO4	Find design speed, maximum speed & minimum speed limits of a location through spot speed
					CO5	Identify engineering properties of aggregate
					CO6	Explain mix design of bitumen and CBR test etc
9	VI	PC459CE	Computer Applications Laboratory	Mrs. Shaista Begum	CO1	Understand the application of software's in civil engineering.
					CO2	Development of programs for Design of Structural elements uding Excel
					CO3	Use of software knowledge for solving Geo technical related problems
					CO4	Use of software knowledge for solving Hydraulic Engineering problems
					CO5	Analyze and Design two span continuous beam using STAADPRO
					CO6	Analyze and Design two storied frame using STAADPRO

DEPARTMENT OF CIVIL ENGINEERING
ACADEMIC YEAR 2022-2023 ODD SEMESTER
COURSE OUTCOMES SUMMARY

Semester : VII SEM

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
1	VII	PC401CE	Construction Engineering and Management	Mrs. S. Deva Samyuktha	CO1	**Identify** and report the importance and necessity of construction management
					CO2	**Employ** bar charts, networks to determine the critical path and alter the construction schedules accordingly.
					CO3	**Interpret** the terms related to costs and time, and there by solve problems on crashing of networks.
					CO4	**Categorize** various construction contracts, acts and examine various documents related to construction.
					CO5	**Interpret** the concept of Linear Programming in Construction, and solve problems on Graphical and Simplex methods.
2	VII	PC402CE	Prestressed Concrete	Mrs. Shaista Begum	CO1	**Explain** the concept of prestressing methods and techniques and recognize the importance of materials used in PSC work
					CO2	**Explain** the behavior of a PSC beam section under given prestress and loads and assess the losses in prestressing
					CO3	**Analyse** the indeterminate PSC members
					CO4	**Extend** the knowledge of analysis to Design a PSC beam section for the given conditions.
					CO5	**Analyze** the Shear failure and deflections of a PSC beam for safe design of PSC beams
					CO6	**Assess** the extent of bursting tension in the end block of a PSC beam and Develop the method of strengthening the end block
3	VII	PE404CE	Disaster Management	Mr. D. Bharath Naik	CO1	Explain the terms and concepts of disaster management
					CO2	Summarize the catergories of disasters and their characteristics
					CO3	Discuss the framework and measures of pre-disaster , during disaster, post- disaster measures
					CO4	Interpret the Indian Disaster Management acts and it's framework
					CO5	Describe the application of various technologies to disaster management.
					CO6	Differentiate the various mitigative measures and implement them accordingly.
4	VII	PE408CE	GIS & Remote Sensing	Mr. Shiak Mohammad Imarn (Sec- A) & Ms. M. Madhuri(Sec-B)	CO1	**Illustrate** basics of remote sensing, energy interactions with earth surface features and their spectral properties
					CO2	**Classify** different types of satellites, sensors and sensor characteristics in remote sensing
					CO3	**Demonstrate** the basic concepts of GIS
					CO4	**Demonstrate** the basic concepts of Map Projections
					CO5	**Explain** data models and spatial data creation in GIS
					CO6	**Explain** the various operations in spatial data analysis & terrain modelling

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
5	VII	OE701ME	Startup & Entrepreneurship	Dr. M. Uday Kumar	CO1	Understand Indian Industrial Environment, Entrepreneurship and Economic growth, Small and Large Scale Industries, Types and forms of enterprises.
					CO2	Identify the characteristics of entrepreneurs, Emergence of first generation entrepreneurs, Conception and evaluation of ideas and their sources.
					CO3	Practice the principles of project formulation, Analysis of market demand, Financial and profitability analysis and Technical analysis.
					CO4	Apply the concepts of Project Management during construction phase, project organization, project planning and control using CPM, PERT techniques
					CO5	Understand the Behavioral aspects of entrepreneurs, Time Management,Various approaches of time management, their strengths and weakness. The urgency addiction and time management matrix
6	VII	PR401CE	Seminar	Mr. Shaik Mohammad Imran	CO1	**Explain** techniques, processes and tools used in the industry
					CO2	**Discuss** the current needs of the industry in his/her area of interest
					CO3	**Explain** the practical knowledge acquired in the chosen area/work done.
					CO4	**Summarize** and prepare a technical report on internship completed at industry
					CO5	**Adapt** to work in a team or as an individual effectively
7	VII	PW401CE	Project Work- I	Dr. Bandita Naik(Sec-B) & Ms. M. Madhuri (Sec- A)	CO1	Summarize in written form the literature study carried out with relevant data analysis, interpretation and problem identification for the selected project topic.
					CO2	Analyse the specific problem using engineering knowledge to arrive at a solution methodology
					CO3	Formulate an investigation procedure and analyze, interpret and synthesise the obtained data using a laboratory procedure and/or modern engineering software and tools.
					CO4	Draw valid conclusions and engineering solutions including design, recommendations or estimations, keeping in view the safety norms and regulations in codes of practice.
					CO5	Discuss and communicate in oral and written forms, the technical contents of the project, observing professional ethical principles of documentation.
					CO6	Demonstrate individual and teamwork skills in carrying out and managining the project work

DEPARTMENT OF CIVIL ENGINEERING
ACADEMIC YEAR 2022-2023 EVEN SEMESTER
COURSE OUTCOMES SUMMARY

Semester : VIII SEM

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
1	VIII	MC	Gender Sensitization	Mrs. J. R. Hepzibha	CO1	Develop a better understanding of important issues related to gender in contemporary India.
					CO2	To change the basic dimensions of the biological. Sociological, psychological and legal aspects of gender through discussions, facts, everyday life, literature and film
					CO3	To analyze how gender discrimination works in our society and how to counter it.
					CO4	To identify and plan better ways of working and living together as equals.
					CO5	To develop a sense of appreciation of women in all walks of life
					CO6	To enable in developing good interpersonal relationships at work places and to develop a sustain interest in gender equality
2	VIII	PE411CE	Principles of Green buildings	Ms. Shiphali Preeti Aind	CO1	Explain the concepts of sustainability and a green building, along with its features and benefits.
					CO2	Describe the criteria and methods used for site selection & planning and in achieving water efficiency in green buildings.
					CO3	Define the terms and explain the methods used for achieving energy efficiency in green buildings.
					CO4	Discuss the various types of building materials and waste management methods for a sustainable built environment.
					CO5	Describe the methods used to maintain indoor environmental quality.
					CO6	List the various Green Building Rating systems applicable in India, and also the standard national and international codes related to green building practices.
3	VIII	PE415CE	Intelligent Transportation Systems	Mr. R. Srikanth	CO1	Demonstrate comprehension of ITS objectives, historical background, and benefits.
					CO2	Recall the data collection techniques used in ITS, including detectors, AVL, AVI, GIS, and video data collection.
					CO3	Utilize the importance of telecommunications in ITS, including information management, TMCs, and vehicle-roadside communication.
					CO4	Demonstrate comprehension of ITS functional areas including ATMS, ATIS, CVO, AVCS, APTS, and ARTS
					CO5	Recall user needs and services of ITS, including travel and traffic management, public transportation management, electronic payment, and emergency management.
					CO6	Utilize concepts of automated highway systems, including vehicles in platoons and global overview of ITS implementations, and understand impact on sustainable mobility and travel demand management.

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	
					Co No	Course Outcome
4	VIII	OE801ME	3D Printing Technologies	Mrs. Shazia Anwar	CO1	Describe the fundamentals of additive manufacturing,classify and explain advantages and disadvantages of3D Printing technologies
					CO2	Describe the operating principles ,capabilities and limitations of liquid based systems.
					CO3	Describe the operating principles ,capabilities and limitations of solid based systems
					CO4	Expalin the operating principles,specifications,advantages and disadvantages of powder based systems.
					CO5	Applying the capabilities of additive manufacturing in different industrial sectors.
5	VIII	PW704CE	Project Work - II	Ms. M. Madhuri and Dr. Bandita Naik	CO1	Summarize in written form the literature study carried out with relevant data analysis, interpretation and problem identification for the selected project topic.
					CO2	Analyse the specific problem using engineering knowledge to arrive at a solution methodology
					CO3	Formulate an investigation procedure and analyze, interpret and synthesise the obtained data using a laboratory procedure and/or modern engineering software and tools.
					CO4	Draw valid conclusions and engineering solutions including design, recommendations or estimations, keeping in view the safety norms and regulations in codes of practice.
					CO5	Discuss and communicate in oral and written forms, the technical contents of the project, observing professional ethical principles of documentation.
					CO6	Demonstrate individual and teamwork skills in carrying out and managining the project work