COURSE OUTCOMES - 2022 SCHEME

3rd SEMESTER

Subject:	Strength of materials		
Subject Code:	BCV301	NBA Code:	CV201
CO1	Appraise the basic concepts of stresses and strains for different materials and strength of structural elements.		
CO2	Determine the bending moment and shear forces induced due to loads on structural elements and schematic representation of the same.		
CO3	Evaluate the behavior of bending, shear stresses and torsion in beams and suggest most economical section.		
CO4	Analyse the stresses in Thin and Thick cylinders and Compound Stresses		
CO5	Estimate the behavior of columns and struts and evaluate the slope and deflections of beams.		

Subject:	Engineering survey		
Subject Code:	BCV302	NBA Code:	CV202
CO1	Summarize various types of surveying and carry out distance measurement using various equipment.		
CO2	Illustrate the use and applications of levelling and theodolite.		
CO3	Plot contours, longitudinal and cross sections for construction projects.		
CO4	Set curves for construction works and carry out estimation of areas and volumes.		
CO5	Demonstrate the necessary skills to carry out GPS and DRONE Surveying.		

Subject:	Engineering geology		
Subject Code:	BCV303	NBA Code:	CV203
CO1	Apply geological knowledge in different civil engineering practice.		
CO2	Acquire knowledge on durability and competence of foundation rocks, and will be able to use the best building materials.		
CO3	Students will become competent enough for the safety, stability, economy and life of the structures that they construct		
CO4	Able to solve various issues related to ground water exploration, build up dams, bridges, tunnels which are often confronted with ground water problems		
CO5	Students will become Intelligent enough to apply GIS, GPS and remote sensing as a latest tool in different civil engineering for safe and solid construction.		

Subject:	Water supply & waste water engineering		
Subject Code:	BCV304	NBA Code:	CV204
CO1	Estimate the average and peak water demand for a community.		
CO2	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system.		
CO3	Design the different units of water treatment plant.		
CO4	Design the various units of wastewater treatment plant.		
CO5	Design of various AOPs and low cost treatment units.		

Subject:	Computer aided building planning & drawing		
Subject Code:	BCV305	NBA Code:	CV205
CO1	Prepare, read and interpret the drawings in a professional set up		
CO2	Know the procedures of submission of drawings.		
CO3	Develop working and submission drawings for building.		
CO4	Plan of residential building as per the given requirements.		
CO5	Plan of public building as per the given requirements.		

Subject:	Fire safety in buildings		
Subject Code:	BCV306D	NBA Code:	CV206
CO1	Understand types of fire, combustion process and fire resistance		
CO2	Plan for fire safety and design of lifts		
CO3	Design flow network in buildings		
CO4	Design of electrical systems and maintenance		
CO5	Perform health evaluation of buildings and suggest remedies		

Subject:	Social connect & responsibility		
Subject Code:	BSCK307	NBA Code:	CV207
CO1	Communicate and connect to the surrounding		
CO2	Create a responsible connection with the society.		
CO3	Involve in the community in general in which they work.		
CO4	Notice the needs and problems of the community and involve them in problem solving.		
CO5	Develop among themselves a sense of social & civic responsibility & utilize their knowledge in finding practical solutions to individual and community problems.		
CO6	Develop competence required for group-living and sharing of responsibilities & gain skills in mobilizing community participation to acquire leadership qualities and democratic attitudes.		

Subject:	Problem solving with python		
Subject Code:	BCVL358C	NBA Code:	CV208
CO1	Understand 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	Represent compound data using Python lists, tuples, strings, and dictionaries.		
CO4	Read and write data from/to files in Python programs.		

COURSE OUTCOMES - 2022 SCHEME

4th SEMESTER

Subject:	Analysis of structures		
Subject Code:	BCV401	**NBA Code:**	CV210
CO1	Identify the different forms of structural systems and analyse the trusses.		
CO2	Evaluate the slope and deflections in beams, frames and trusses by using moment area method and energy principle		
CO3	Analyse and determine the stress resultants inarches and cables.		
CO4	Analyse the indeterminate structures and construct BMD AND SFD using slope deflection methods.		
CO5	Analyse the indeterminate structures and construct BMD AND SFD using Moment Distribution Method.		

Subject:	Fluid mechanics and hydraulics		
Subject Code:	BCV402	**NBA Code:**	CV211
CO1	Explain the fundamental properties of fluids and solve problems on fluid pressure and hydrostatics.		
CO2	Apply the principles of kinematics and dynamics of fluid flow to solve problems on velocity and pressure.		
CO3	Compute the discharge through pipes, notches and weirs.		
CO4	Design the turbines and open channels of different sections and to estimate the energy loss in hydraulic jump.		
CO5	Able to interpret the experimental results of discharge, efficiency based on the test conducted in the laboratory.		

Subject:	Transportation engineering		
Subject Code:	BCV403	**NBA Code:**	CV212
CO1	Explain the basic principles of geometric design in the context of transportation engineering and planning.		
CO2	Select the appropriate pavement materials for construction and design the pavement as per standard practices.		
CO3	Conduct traffic studies and analyse traffic data for practical applications.		
CO4	Identify the Components parts of Railway Track and design the suitable runway for an Airport.		
CO5	Able to interpret the experimental results of highway materials based on laboratory tests and design the pavement as per IRC guidelines.		

Subject:	Building material testing laboratory		
Subject Code:	BCV404	NBA Code:	CV213
CO1	To apply knowledge of mathematics and engineering in calculating mechanical properties of structural materials.		
CO2	To estimate the strength of MS and CI in Compression and Tension		
CO3	To evaluate strength in Bending, Torsion and shear of MS, Wood		
CO4	To analyse the strength of MS under Impact under Charpy and Izod test.		
CO5	To assess the hardness of Ferrous and Non- Ferrous metals		

Subject:	Watershed management		
Subject Code:	BCV405D	NBA Code:	CV214
CO1	Discuss surface and ground water resources system and, human influences.		
CO2	Integrate water resources system in arid and semi-arid regions and explain watershed aquifer for management.		
CO3	Analyse water resources related issues for conservation and synthesize augmentation of water resources.		
CO4	Design integrated watershed management system.		
CO5	Apply modern tools in watershed management.		

Subject:	GIS with Quantum GIS		
Subject Code:	BCV456B	NBA Code:	CV215
CO1	Use open-source software for civil engineering applications.		
CO2	Various tools in QGIS software.		
CO3	Create thematic layers with attribute data.		
CO4	Generate maps for decision making.		

Subject:	Biology for engineers		
Subject Code:	BBOK407	NBA Code:	CV216
CO1	Elucidate the basic biological concepts via relevant industrial applications and case studies.		
CO2	Evaluate the principles of design and development, for exploring novel bioengineering projects		
CO3	Corroborate the concepts of biomimetics for specific requirements		
CO4	Think critically towards exploring innovative biobased solutions for socially relevant problems		

Subject:	Universal human value course		
Subject Code:	BUHK408	NBA Code:	CV217
CO1	Ethical human conduct		
CO2	Socially responsible behaviour and holistic vision of life		
CO3	Environmentally responsible work		
CO4	Having Competence and Capabilities for Maintaining Health and Hygiene		
CO5	Appreciation and aspiration for excellence (merit) and gratitude for all		