

SCHOOL OF ENGINEERING  
**DEPARTMENT OF CIVIL ENGINEERING**  
ACADEMIC YEAR: 2019-20

YEAR: II

SEMESTER: I

REGULATION: R18

Course Name: **Surveying & Geomatics**

Course Code: **CE301PC**

<b>CO1</b>	Able to <b>Summarize</b> the types of surveying and their measuring techniques of determining the distances and directions..
<b>CO2</b>	Able to <b>Survey</b> for the construction of road, canals and contours by using different types of leveling techniques
<b>CO3</b>	Able to <b>evaluate</b> the areas and volumes using different methods
<b>CO4</b>	Able to <b>extend</b> the knowledge of theodolite in tacheometric surveying and curve setting and understand the advanced surveying like Geodetic surveying, Total Station, GPS and GIS
<b>CO5</b>	Able to <b>explain</b> the concept of Photogrammetry Surveying

Course Name: **Engineering Geology**

Course Code: **CE302PC**

<b>CO1</b>	Able to Explain the difference between physical and mechanical weathering.
<b>CO2</b>	Able to determine the compressive strength of rock granite and other rocks
<b>CO3</b>	Able to evaluate the various types of geo physical methods, geological formations, structures, textures.
<b>CO4</b>	Able to distinguish dykes and sills, folds, faults, weathering and erosion and igneous, sedimentary and metamorphic rocks.
<b>CO5</b>	Able to list out and classify the various types of dams, reservoirs and tunnels.

Course Name: **Strength of Materials-I**

Course Code: **CE303PC**

<b>CO1</b>	Able to <b>determine</b> the stresses and strains in the members subjected to axial and bending loads.
<b>CO2</b>	Able to <b>construct</b> the Shear Force and Bending Moment diagrams for different beams subjected to various loads.
<b>CO3</b>	Able to <b>determine</b> the shear stresses and flexural stresses in structural members.
<b>CO4</b>	Able to <b>determine</b> the principal stresses and strains in structural members
<b>CO5</b>	Able to <b>evaluate</b> the slope and deflection of beams subjected to various loads

Course Name: **Probability & Statistics**

Course Code: **MA304BS**

<b>CO1</b>	Able to <b>Analyze</b> random variables involved in the probability models and apply them for various branches of engineering
<b>CO2</b>	Able to <b>Understand</b> the basic ideas of probability and random variables and various discrete probability distributions and their properties.
<b>CO3</b>	Able to <b>Understand</b> the basic ideas of probability and random variables and various Continuous probability distributions and their properties.
<b>CO4</b>	Able to <b>Understand</b> the basic ideas of statistics including measures of central tendency, correlation and regression.
<b>CO5</b>	Able to <b>calculate</b> mean and proportion (small and large sample) and to make important decisions from few samples which are taken out of unimaginably huge populations which is useful for non circuit branches of engineering.

**Course Name: Fluid Mechanics****Course Code: CE305PC**

<b>CO1</b>	Able to <b>Understand</b> the properties of Fluid Mechanics and apply them for Fluid Statics.
<b>CO2</b>	Able to <b>Classify</b> the fluid flows and use momentum principles in Fluid Dynamics.
<b>CO3</b>	Able to <b>Apply</b> the Bernoulli's equation practically and also Understand the flow over Notches and Weirs
<b>CO4</b>	Able to <b>Understand</b> the concept of flow through pipes and Analyze the pipe Network
<b>CO5</b>	Able to <b>Apply</b> boundary layer theory Concepts for Laminar and Turbulent flows.

**Course Name: Surveying Lab****Course Code: CE306PC**

CO1	Able to <b>Apply</b> the principle of surveying for civil engineering applications.
CO2	Able to <b>Calculate</b> areas using chain and compass survey, plane table and plot them.
CO3	Able to <b>evaluate</b> the levels of grounds using theodolite and perform trigonometrical leveling
CO4	Able to <b>understand</b> the usage of Total station and determine various parameters.

**Course Name: Strength of Materials Lab****Course Code: CE307PC**

CO1	Able to <b>Determine</b> hardness of metals.
CO2	Able to <b>Classify</b> the materials like steel, concrete, etc. depending upon the strength.
CO3	Able to <b>Find</b> out the compression strength of spring, wood and concrete
CO4	Able to <b>Determine</b> the Elastic Constants of steel by conducting flexural and torsion tests
CO5	Able to <b>Find</b> out the Tensile strength of Materials like steel, etc. by Tension test

**Course Name: Engineering Geology Lab****Course Code: CE308PC**

CO1	Able to <b>Understand</b> the properties of Rocks
CO2	Able to <b>Understand</b> the properties of minerals
CO3	Able to <b>Measure</b> the strike and dip of the bedding planes.
CO4	Able to <b>Interpret</b> the geological maps
CO5	Able to <b>Solve</b> the geological problems.

**YEAR: II**

**SEMESTER: II**

**REGULATION: R18**

**Course Name: BEEE**

**Course Code: EE401ES**

<b>CO1</b>	Able to <b>Recall</b> fundamentals of electrical circuits and outline measuring instruments
<b>CO2</b>	Able to <b>Discuss</b> DC generators and types of DC motors
<b>CO3</b>	Able to <b>Explain</b> the working of transformers and AC machines
<b>CO4</b>	Able to <b>Analyze</b> characteristics of diodes rectifiers and transistors
<b>CO5</b>	Able to <b>Explain</b> construction of cathode ray oscilloscope

**Course Name: BMECE**

**Course Code: CE402PC**

<b>CO1</b>	Able to <b>Distinguish</b> between various engineering materials and understand their applications
<b>CO2</b>	Able to <b>Compare</b> and select various power transmission elements and understand their usage in civil engineering equipment
<b>CO3</b>	Able to <b>Explain</b> the various principles of Thermal engineering and their applications
<b>CO4</b>	Able to <b>classify</b> various manufacturing processes and choose suitable process for civil engineering applications
<b>CO5</b>	Able to <b>Differentiate</b> between various machine tools and select appropriate machine tool based on the requirement.

**Course Name: BMCP**

**Course Code: CE403PC**

<b>CO1</b>	Able to <b>understand</b> the types of building stones and bricks and their composition and characteristics.
<b>CO2</b>	Able to <b>discuss</b> the manufacturing process of timber, aluminum, glass, paints, plastics, cement, different tests on cement and various types of admixtures.
<b>CO3</b>	Able to <b>explain</b> building components like lintels, arches, walls, vaults, stair cases, floors and building services of plumbing, sanitary, ventilation, etc.,
<b>CO4</b>	Able to <b>discuss</b> about mortars, masonry, finishes and formwork.
<b>CO5</b>	Able to <b>understand</b> about building planning and bye-laws.

**Course Name: SoM-II**

**Course Code: CE404PC**

<b>CO1</b>	Able to <b>explain</b> the theory of torsion and springs.
<b>CO2</b>	Able to <b>understand</b> the concept of columns and struts.
<b>CO3</b>	Able to <b>understand</b> the concept of direct and bending stresses.
<b>CO4</b>	Able to <b>Summarize</b> about unsymmetrical bending moment and beams used in the plan.
<b>CO5</b>	Able to <b>distinguish</b> between thin Cylinders and thick Cylinders.

**Course Name: HHM**

**Course Code: CE405PC**

<b>CO1</b>	Able to <b>Compare</b> the types of open channel flows and most economical sections
<b>CO2</b>	Able to <b>Extend</b> the knowledge on non-uniform flow and dynamic equation for Gradually Varied Flow
<b>CO3</b>	Able to <b>Interpret</b> about dimensional analysis, similitude, hydraulic models and numbers
<b>CO4</b>	Able to <b>Distinguish</b> between different types of hydrodynamic forces on jets
<b>CO5</b>	Able to <b>Summarize</b> the different types of turbines and pumps and study their properties in hydropower plant.

Course Name: SA-I

Course Code: CE406PC

CO1	Able to <b>Solve</b> the forces in members for perfect frames
CO2	Able to <b>calculate</b> the deflections of beams using energy theorems and <b>analyze</b> the three hinged arches
CO3	<b>Analyze</b> the propped cantilevers and fixed beams.
CO4	Able to <b>Analyze</b> continuous beams by Clapeyron's three moment theorem and analyze beams, and portal frames using Slope deflection method
CO5	Able to <b>Sketch</b> influence line diagrams for the moving loads.

Course Name: CAD/CED Lab

Course Code: CE407PC

CO1	Able to <b>explain</b> and use the Autocad commands for drawing 2D & 3D building drawings required for different civil engineering applications.
CO2	Able to Plan and <b>construct</b> the Civil Engineering Buildings as per aspect and orientation
CO3	Able to <b>present</b> drawings as per user requirements and preparation of technical report

Course Name: BEEE LAB

Course Code: EE409ES

CO1	Able to <b>analyze</b> and <b>solve</b> electrical circuits using network laws and theorems.
CO2	Able to <b>understand</b> and <b>analyze</b> basic Electric and Magnetic circuits
CO3	Able to <b>study</b> the working principles of Electrical Machines
CO4	Able to <b>understand</b> components of Low Voltage Electrical Installations
CO5	Able to <b>identify</b> and characterize diodes and various types of transistors.

Course Name: HHM Lab

Course Code: CE409PC

CO1	Able to <b>Describe</b> the basic measurement techniques of fluid mechanics and its appropriate application.
CO2	Able to <b>Interpret</b> the results obtained in the laboratory for various experiments
CO3	Able to <b>Discover</b> the practical working of Hydraulic machines- different types of Turbines, Pumps, and other miscellaneous hydraulics machines
CO4	Able to <b>Compare</b> the results of analytical models introduced in lecture to the actual behavior of real fluid flows and draw correct and sustainable conclusions

**YEAR: III**

**SEMESTER: I**

**REGULATION: R16**

**Course Name: Concrete Technology**

**Course Code: CE501PC**

<b>CO1</b>	Able to <b>compare</b> the types of cement, admixtures and aggregates and can identify their usage.
<b>CO2</b>	Able to <b>explain</b> workability of fresh concrete and tests conducted to determine it.
<b>CO3</b>	Able to <b>understand</b> the concept of the hardened concrete.
<b>CO4</b>	Able to <b>design</b> mix proportions for different grades of concretes using different methods
<b>CO5</b>	Able to <b>understand</b> the properties of various special concretes

**Course Name: DRCS**

**Course Code: CE502PC**

<b>CO1</b>	Able to <b>Design</b> RC Structural elements
<b>CO2</b>	Able to <b>Design</b> the Reinforced Concrete beams using limit state
<b>CO3</b>	Able to <b>Design</b> Reinforced Concrete slabs
<b>CO4</b>	Able to <b>Design</b> the Reinforced Concrete Columns and footings Design structures for serviceability
<b>CO5</b>	Able to <b>Design</b> staircases and canopy

**Course Name: WRE**

**Course Code: CE503PC**

<b>CO1</b>	Able to <b>explain</b> about hydrological cycle, types of formation of precipitation, rain gauges, and runoff
<b>CO2</b>	Able to <b>define</b> hydrograph analysis, limitations and applications. S-hydrograph, synthetic unit hydrograph
<b>CO3</b>	Able to <b>examine</b> the ground water occurrence, porosity, specific yield, permeability, transmissivity and storage coefficient
<b>CO4</b>	Able to <b>understand</b> the necessity and importance of irrigation, advantages and its effects
<b>CO5</b>	Able to <b>classify</b> the canals and design by Kennedy's and lacey's theories

**Course Name: FoM**

**Course Code: SM504MS**

<b>CO1</b>	Able to <b>Understand</b> the significance of management in their profession
<b>CO2</b>	Able to <b>Define</b> and <b>summarize</b> the importance of planning and decision making techniques
<b>CO3</b>	Able to <b>Describe</b> the organizational structures and effective utilization of Human resources in the organization.
<b>CO4</b>	Able to <b>identify</b> Importance of leadership and motivation to reach the organizational goals
<b>CO5</b>	Able to <b>Define</b> controlling and enlist its features, process and different controlling techniques

**Course Name: NCPG**

**Course Code: EE511OE**

<b>CO1</b>	Able to <b>explain</b> renewable energy sources and systems.
<b>CO2</b>	Able to <b>apply</b> engineering techniques to build solar, wind, tidal,geothermal,biofuel,fuel cell, hydrogen and sterling engine.
<b>CO3</b>	Able to <b>analyze</b> and <b>evaluate</b> the implication of renewable energy, concepts in solving numerical problems pertaining to solar radiation geometry and wind energy systems.
<b>CO4</b>	Able to <b>demonstrate</b> self learning capability to design and establish renewable energy systems.
<b>CO5</b>	Able to <b>conduct</b> experiments to assess the performance of solar PV, solar thermal and biodiesel systems.

**Course Name: CT LAB****Course Code: CE505PC**

<b>CO1</b>	Able to <b>understand</b> the properties of cement.
<b>CO2</b>	Able to <b>understand</b> the workability and other fresh concrete properties.
<b>CO3</b>	Able to <b>understand</b> the properties of hardened concrete.
<b>CO4</b>	Able to <b>understand</b> the tests on the self compacting concrete.
<b>CO5</b>	Able to <b>Perform</b> the Non Destructive tests of concrete.

**Course Name: GIS LAB****Course Code: CE506PC**

<b>CO1</b>	Able to <b>study</b> the toposheets and cadastral maps.
<b>CO2</b>	Able to <b>develop</b> the GIS interface to field problems through geofencing
<b>CO3</b>	Able to <b>explain</b> the digitization and GIS Coordination.
<b>CO4</b>	Able to <b>explain</b> the usage of GIS software with a case example.

**Course Name: HHM LAB****Course Code: CE507PC**

<b>CO1</b>	Able to <b>Analyze</b> the performance of Pelton wheel, Francis turbine and Kaplan turbine by drawing its performance curves.
<b>CO2</b>	Able to <b>Analyze</b> the performance of centrifugal pump and reciprocating pump by drawing its performance curves.
<b>CO3</b>	Able to <b>Study</b> of the flow in open channel and find the discharge using various weirs.
<b>CO4</b>	Able to <b>Understand</b> the evaluation of the impact of jet on vanes.

**YEAR: III**

**SEMESTER: II**

**REGULATION: R16**

**Course Name: DSS**

**Course Code: CE601PC**

<b>CO1</b>	Able to <b>Design</b> the bolted, welded connections and tension members
<b>CO2</b>	Able to <b>Design</b> the compression members for column splice and column base
<b>CO3</b>	Able to <b>Extend</b> the knowledge of plastic moment of beams and design them
<b>CO4</b>	Able to <b>Design</b> the eccentric connections for unstiffened and stiffened seated connections
<b>CO5</b>	Able to <b>Interpret</b> the knowledge of beams on welded plate girder and connections between flange and splice.

**Course Name: EE**

**Course Code: CE602PC**

<b>CO1</b>	Able to <b>Acquire</b> the knowledge of the water borne diseases
<b>CO2</b>	Able to <b>Acquire</b> the knowledge of sources of water
<b>CO3</b>	Able to <b>Develop</b> skills in designing the water treatment plant
<b>CO4</b>	Able to <b>Develop</b> skills in control of Air pollution
<b>CO5</b>	Able to <b>Develop</b> an understanding of sources of water and water supply.

**Course Name: Soil Mechanics**

**Course Code: CE603PC**

<b>CO1</b>	Able to <b>Interpret</b> the basic and index properties of the soils.
<b>CO2</b>	Able to <b>Explain</b> the properties and factors affecting permeability and demonstrate the properties of flow nets and its uses
<b>CO3</b>	Able to <b>Understand</b> the concept of compaction and stress distribution in soils.
<b>CO4</b>	Able to <b>explain</b> the concepts of consolidation & analyze the Terzaghi's one dimensional consolidation theory.
<b>CO5</b>	Able to <b>understand</b> the concept and <b>Determine</b> the shear strength of soil.

**Course Name: ERDSS**

**Course Code: CE614PC**

<b>CO1</b>	Able to <b>Describe</b> the behavior of natural and engineered soil slopes under various weather and engineering conditions.
<b>CO2</b>	Able to <b>Explain</b> the factors that may affect the stability of slopes
<b>CO3</b>	Able to <b>Select</b> an appropriate slope stability analysis method subject to geometry of slope, material properties, and uncertainty of observations
<b>CO4</b>	Able to <b>Assess</b> the potential landslide risk of slopes.
<b>CO5</b>	Able to <b>Design</b> earth and rock fill dams, get familiarity with slope stability Calculations and prevention techniques for slope failures.

**Course Name: Fabrication Process**

**Course Code: ME623OE**

<b>CO1</b>	Able to <b>understand</b> casting process and <b>interpret</b> foundry practices and inspection of defects.
<b>CO2</b>	Able to <b>select</b> appropriate joining process to join work piece.
<b>CO3</b>	Able to <b>differentiate</b> various metals forming process.
<b>CO4</b>	Able to <b>classify</b> different plastic deformation of extrusion of metals
<b>CO5</b>	Able to <b>understand</b> the different forging operations, principles, tools and forging methods

**Course Name: SM LAB**

**Course Code: CE604PC**

<b>CO1</b>	Able to <b>Perform</b> Atterberg limits test and sieve analysis for quality control
<b>CO2</b>	Able to <b>Analyze</b> the behavior of soil by CBR test and tri-axial test
<b>CO3</b>	Able to <b>Interpret</b> Direct shear test , Vane shear strength parameters and unconfined compression
<b>CO4</b>	Able to <b>Conduct</b> Constant head and variable head test for permeability.
<b>CO5</b>	Able to <b>Conduct</b> One Dimensional consolidation Test and compaction Test

**Course Name: CAD –II LAB**

**Course Code: CE605PC**

<b>CO1</b>	<b>Sketch</b> the reinforcement in different types of beams
<b>CO2</b>	<b>Sketch</b> the reinforcement in Columns & footings
<b>CO3</b>	<b>Sketch</b> the reinforcement in different types of Slabs
<b>CO4</b>	<b>Sketch</b> the bolted and welded connections of steel
<b>CO5</b>	<b>Sketch</b> different steel members

**Course Name: AECS LAB**

**Course Code: EN606HS**

<b>CO1</b>	Able to <b>Acquire</b> vocabulary and use it contextually
<b>CO2</b>	Able to <b>Use</b> Listening and speaking skills effectively
<b>CO3</b>	Able to <b>Develop</b> proficiency in academic reading and writing
<b>CO4</b>	Able to <b>Increase</b> possibilities of Job prospects
<b>CO5</b>	Able to <b>Communicate</b> confidently in formal and informal contexts.



**YEAR: IV**

**SEMESTER: I**

**REGULATION: R16**

**Course Name: Transportation Engineering**

**Course Code: CE701PC**

<b>CO1</b>	Able to <b>Explain</b> about Highway development and planning and evaluate the highway cross section elements
<b>CO2</b>	Able to <b>Construct</b> the different types of Curves, Gradients, Super elevation and extra widening for highways.
<b>CO3</b>	Able to <b>Understand</b> the Traffic Parameters, Traffic signs, Road markings and Traffic signal phasing timings
<b>CO4</b>	Able to <b>Define</b> Intersections and choose the intersections for controlling of traffic in pavements
<b>CO5</b>	Able to <b>Explain</b> about Highway materials and maintenance for the construction of Highways

**Course Name: EQSV**

**Course Code: CE702PC**

<b>CO1</b>	Able to <b>estimate</b> the quantities of buildings using the two standard methods and calculate the cost.
<b>CO2</b>	Able to <b>estimate</b> the quantities for roads and earth works
<b>CO3</b>	Able to <b>determine</b> the different kinds of analysis of rates.
<b>CO4</b>	Able to <b>develop</b> Bar Bending Schedule for different kinds of bars.
<b>CO5</b>	Able to <b>evaluate</b> the buildings which are helpful for the Revenue Department

**Course Name: FE**

**Course Code: CE723PE**

<b>CO1</b>	Able to <b>Analyze</b> the need and methods of soil exploration and to learn the field test and soil investigation
<b>CO2</b>	Able to <b>Apply</b> knowledge for stability of slopes of earth dams under different conditions
<b>CO3</b>	Able to <b>interpret</b> the earth pressure theories and design of retaining walls
<b>CO4</b>	Able to <b>explain</b> the theory of shallow foundation and to understanding the concept of pile foundation
<b>CO5</b>	Able to <b>Describe</b> the properties of pile and well foundation and their functions

**Course Name: GIT**

**Course Code: CE733PE**

<b>CO1</b>	Able to <b>understand</b> the basic concepts of Ground Improvement Techniques
<b>CO2</b>	Able to <b>explain</b> the concept of mechanical and hydraulic modifications
<b>CO3</b>	Able to <b>explain</b> the concept of physical and chemical modifications
<b>CO4</b>	Able to <b>explain</b> the concept of modification by inclusions and confinement.
<b>CO5</b>	Able to <b>identify</b> the suitable ground improvement techniques for specific project and its implications.

**Course Name: Traffic Engineering**

**Course Code: CE714PE**

<b>CO1</b>	Able to <b>Understand</b> the basic principles of Traffic engineering
<b>CO2</b>	Able to <b>analyze</b> parking data and model accidents.
<b>CO3</b>	Able to <b>explain</b> the Capacity and LOS.
<b>CO4</b>	Able to <b>design</b> signals considering various parameters.
<b>CO5</b>	Able to <b>explain</b> the transportation system management

**Course Name: TE LAB****Course Code: CE703PC**

<b>CO1</b>	Able to <b>determine</b> the properties of Aggregate by applying loads gradually and suddenly. Aggregate Impact test, Aggregate Crushing test and Abrasion test
<b>CO2</b>	Able to <b>Demonstrate</b> Shape tests and find Elongation and flakiness index
<b>CO3</b>	Able to <b>Illustrate</b> Penetration, Ductility, Softening, flash and fire point tests.
<b>CO4</b>	Able to <b>determine</b> strength of bitumen by means of Marshall stability test.
<b>CO5</b>	Able to <b>conduct</b> the traffic volume counting and speed of vehicles by means of modern equipment.

**Course Name: EE LAB****Course Code: CE704PC**

<b>CO1</b>	Able to <b>Quantify</b> the water and wastewater pollutant.
<b>CO2</b>	Able to <b>Measure</b> the concentration of air pollutants
<b>CO3</b>	Able to <b>Analyze</b> the characteristics of water
<b>CO4</b>	Able to <b>Analyze</b> the characteristics of wastewater
<b>CO5</b>	Able to <b>Study</b> the growth of microorganism and its quantification

**Course Name: MINI PROJECT****Course Code: CE705PC**

<b>CO1</b>	Able to <b>Apply</b> the basic principles in Civil Engineering to fulfill the requirements.
<b>CO2</b>	Able to <b>Explain</b> technical ideas, strategies and methodologies in an optimum manner
<b>CO3</b>	Able to <b>Demonstrate</b> the outputs in an efficient manner.

**Course Name: SEMINAR****Course Code: CE706PC**

<b>CO1</b>	<b>Identify</b> the relevant topics related to Civil Engineering Subjects.
<b>CO2</b>	<b>Evaluate</b> the topics in a planned manner.
<b>CO3</b>	<b>Defend</b> the presentations with a suitable answers.

**YEAR: IV**

**SEMESTER: II**

**REGULATION: R16**

**Course Name: Organizational Behavior**

**Course Code: EE833OE**

<b>CO1</b>	Able to <b>understand</b> the concept of organizational behavior.
<b>CO2</b>	Able to <b>analyze</b> the Job satisfaction levels and motivational theories.
<b>CO3</b>	Able to <b>evaluate</b> the decision making techniques on organizational behavior
<b>CO4</b>	Able to <b>analyze</b> the importance of group versus teams
<b>CO5</b>	Able to <b>examine</b> the level of performances in Organizational behavior.

**Course Name: Pavement Design**

**Course Code: CE852PE**

<b>CO1</b>	Able to <b>Characterize</b> the response characteristics of soil, aggregate, asphalt, and asphalt mixes
<b>CO2</b>	Able to <b>Analyze</b> flexible pavements
<b>CO3</b>	Able to <b>Analyze</b> rigid pavements
<b>CO4</b>	Able to <b>Design</b> a flexible pavement using IRC, Asphalt Institute, and AASHTO methods
<b>CO5</b>	Able to <b>Design</b> a rigid pavement using IRC and AASHTO methods

**Course Name: IWWT**

**Course Code: CE864PE**

<b>CO1</b>	Able to <b>identify</b> the characteristics of industrial waste water.
<b>CO2</b>	Able to <b>describe</b> pollution effects of disposal of industrial effluent.
<b>CO3</b>	Able to <b>identify</b> and <b>design the</b> treatment options for industrial waste water.
<b>CO4</b>	Able to <b>formulate</b> environmental management plan.
<b>CO5</b>	Able to <b>understand</b> the characteristics and composition of industries.

**Course Name: MAJOR PROJECT**

**Course Code: CE801PC**

<b>CO1</b>	Able to <b>Apply</b> the basic principles in Civil Engineering to fulfill the requirements.
<b>CO2</b>	Able to <b>Explain</b> technical ideas, strategies and methodologies in an optimum manner
<b>CO3</b>	Able to <b>Demonstrate</b> the outputs in an efficient manner.