

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob: 722262724, 7026262725, mail: principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

CO'S OF VARIOUS SUBJECT FOR THE ACADEMIC YEAR- 2022-2023

SEMESTER III	
TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES (21MAT31)	
21MAT31.1	To solve ordinary differential equations using Laplace transform
21MAT31.2	Demonstrate the Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory
21MAT31.3	To use Fourier transforms to analyze problems involving continuous-time signals and to apply Z-Transform techniques to solve difference equations
21MAT31.4	To solve mathematical models represented by initial or boundary value problems involving partial differential equations
21MAT31.5	Determine the extremals of functionals using calculus of variations and solve problems arising in dynamics of rigid bodies and vibrational analysis.

SEMESTER III	
GEODETIC ENGINEERING (21CV32)	
21CV32.1	Execute survey using compass and plane table
21CV32.2	Find the level of ground surface and Calculation of area and volumes
21CV32.3	Operate theodolite for field execution
21CV32.4	Estimate the capacity of reservoir
21CV32.5	Interpret satellite imageries

SEMESTER III	
STRENGTH OF MATERIALS (21CV33)	
21CV33.1	Evaluate the behaviour when a solid material is subjected to various types of forces (namely Compressive, Tensile, Thermal, Shear, flexure, Torque, internal fluid pressure) and estimate stresses and corresponding strain developed.
21CV33.2	Estimate the forces developed and draw schematic diagram for stresses, forces, moments for simple beams with different types of support and are subjected to various types of loads (L3).
21CV33.3	Evaluate the behaviour when a solid material is subjected to Torque and internal fluid pressure and estimate stresses and corresponding strain developed.
21CV33.4	Distinguish the behaviour of short and long column and calculate load at failure & explain the behaviour of spring to estimate deflection and stiffness
21CV33.5	Examine and Evaluate the mechanical properties of various materials under different loading conditions

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)

Affiliated to Visvesvaraya Technological University, Belagavi

Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;

Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

SEMESTER III	
EARTH RESOURCES AND ENGINEERING (21CV34)	
21CV34.1	Apply geological knowledge in different civil engineering practice.
21CV34.2	Students will acquire knowledge on durability and competence of foundation rocks, and confidence enough to use the best building materials.
21CV34.3	competent enough to provide services for the safety, stability, economy and life of the structures that they construct
21CV34.4	Able to solve various issues related to ground water exploration, build up dams, bridges, tunnels which are often confronted with ground water problems
21CV34.5	Intelligent enough to apply GIS, GPS and remote sensing as a latest tool in different civil engineering for safe and solid construction.

SEMESTER III	
COMPUTER AIDED BUILDING PLANNING AND DRAWING (21CV35)	
21CV35.1	Prepare, read and interpret the drawings in a professional set up
21CV35.2	Know the procedures of submission of drawings and Develop working and submission drawings for building.
21CV35.3	Plan and design of residential or public building as per the given requirements

SEMESTER III	
SOCIAL CONNECT & RESPONSIBILITIES (21SCR36)	
21SCR36.1	Understand social responsibility
21SCR36.2	Practice sustainability and creativity
21SCR36.3	Showcase planning and organizational skills

SEMESTER III	
BALAKE KANNADA (KANNADA FOR USAGE) (21KBK39/49)	
21KBK39.1	To understand the necessity of learning of local language for comfortable life
21KBK39.2	To Listen and understand the Kannada language properly
21KBK39.3	To speak, read and write Kannada language as per requirement
21KBK39.4	To communicate (converse) in Kannada language in their daily life with kannada speakers.
21KBK39.5	To speak in polite conversation.

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

SEMESTER III	
BALAKE KANNADA (KANNADA FOR USAGE) (21KBK 37/47)	
21KBK37.1	To understand the necessity of learning of local language for comfortable life
21KBK37.2	To Listen and understand the Kannada language properly
21KBK37.3	To speak, read and write Kannada language as per requirement
21KBK37.4	To communicate (converse) in Kannada language in their daily life with kannada speakers.
21KBK37.5	To speak in polite conversation.

SEMESTER III	
CONSTITUTION OF INDIA AND PROFESSIONAL ETHICS (CIP) (21CIP37/47)	
21CIP37.1	Have constitutional knowledge and legal literacy
21CIP37.2	Understand Engineering and Professional ethics and responsibilities of Engineers

SEMESTER III	
MICROSOFT EXCEL AND VISUAL BASIC FOR APPLICATIONS (21CV382)	
21CV382.1	Solve Trigonometric, Logarithmic, Exponential, Statistical problems and perform Matrix operations
21CV382.2	Solve civil engineering problems using VB as a tool
21CV382.3	Design structural elements by integrating excel and VB

SEMESTER IV	
FLUID MECHANICS AND HYDRAULICS (21CV42)	
21CV42.1	Understand fundamental properties of fluids and solve problems on Hydrostatics
21CV42.2	Apply Principles of Mathematics to represent Kinematics and Bernoulli's principles
21CV42.3	Compute discharge through pipes, notches and weirs
21CV42.4	Design of open channels of various cross sections
21CV42.5	Design of turbines for the given data and understand their operation characteristics

SEMESTER IV	
PUBLIC HEALTH ENGINEERING (21CV43)	
21CV43.1	Estimate average and peak water demand for a community

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

21CV43.2	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system.
21CV43.3	Design the different units of water treatment plant
21CV43.4	Understand and design the various units of wastewater treatment plant
21CV43.5	Acquire capability to conduct experiments and estimate the concentration of different parameters and compare the obtained results with the concerned guidelines and regulations.

SEMESTER IV	
ANALYSIS OF STRUCTURES (21CV44)	
21CV44.1	Evaluate slope and deflections in beams using geometrical methods.
21CV44.2	Determine deflections in trusses and frames using energy principles.
21CV44.3	Analyse arches and cables for stress resultants
21CV44.4	Apply slope deflection method in analysing indeterminate structures and construct bending moment diagram.
21CV44.5	Analyse continuous beams, frames and trusses using stiffness matrix method of analysis

SEMESTER IV	
EARTH RESOURCES AND ENGINEERING LABORATORY (21CVL46)	
21CVL46.1	Comprehend the relations between minerals and rocks based on their physical properties
21CVL46.2	Assess the suitability of materials used in building construction
21CVL46.3	Differentiate geological investigations necessary for the construction of dams, bridges, and tunnels
21CVL46.4	Describe the groundwater investigation using resistivity methods
21CVL46.5	Understand the applications of Geospatial technology in Civil Engineering.

SEMESTER IV	
GREEN BUILDINGS (21CV485)	
21CV485.1	Understand the Definition, Concept & Objectives of the terms cost effective construction and green building
21CV485.2	Apply cost effective techniques in construction
21CV485.3	Apply cost effective Technologies and Methods in Construction
21CV485.4	Understand the Problems due to Global Warming
21CV485.5	State the Concept of Green Building
21CV485.6	Understand Green Buildings

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

SEMESTER IV	
UNIVERSAL HUMAN VALUES-II: UNDERSTANDING HARMONY and ETHICAL HUMAN CONDUCT (21UHV49)	
21UHV49.1	Holistic vision of life
21UHV49.2	Socially responsible behaviour
21UHV49.3	Environmentally responsible work
21UHV49.4	Ethical human conduct
21UHV49.5	Having Competence and Capabilities for Maintaining Health and Hygiene
21UHV49.6	Appreciation and aspiration for excellence (merit) and gratitude for all

SEMESTER V	
CONSTRUCTION MANAGEMENT AND ENTREPRENEURSHIP (18CV51)	
18CV51.1	Prepare a project plan based on requirements and prepare schedule of a project by understanding the activities and their sequence
18CV51.2	Understand labour output, equipment efficiency to allocate resources required for an activity / project to achieve desired quality and safety
17CV51.3	Analyze the economics of alternatives and evaluate benefits and profits of a construction activity based on monetary value and time value
17CV51.4	Establish as an ethical entrepreneur and establish an enterprise utilizing the provisions offered by the federal agencies.

SEMESTER V	
ANALYSIS OF INDETERMINATE STRUCTURES (18CV52)	
18CV52.1	Determine the moment in indeterminate beams and frames having variable moment of inertia and subsidence using slope deflection method
18CV52.2	Determine the moment in indeterminate beams and frames of no sway and sway using moment distribution method
18CV52.3	Construct the bending moment diagram for beams and frames by Kani's method
18CV52.4	Construct the bending moment diagram for beams and frames using flexibility method
18CV52.5	Analyze the beams and indeterminate frames by system stiffness method.

SEMESTER V	
DESIGN OF RC STRUCTURAL ELEMENTS (18CV53)	
18CV53.1	Understand the design philosophy and principles
18CV53.2	Solve engineering problems of RC elements subjected to flexure, shear and torsion

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

18CV53.3	Demonstrate the procedural knowledge in designs of RC structural elements such as slabs, columns and footings
18CV53.4	Owens professional and ethical responsibility.

SEMESTER V	
BASIC GEOTECHNICAL ENGINEERING (18CV54)	
18CV54.1	Ability to plan and execute geotechnical site investigation program for different civil engineering projects
18CV54.2	Understanding of stress distribution and resulting settlement beneath the loaded footings on sand and clayey soils
18CV54.3	Ability to estimate factor of safety against failure of slopes and to compute lateral pressure distribution behind earth retaining structures
18CV54.4	Ability to determine bearing capacity of soil and achieve proficiency in proportioning shallow isolated and combined footings for uniform bearing pressure
18CV54.5	Capable of estimating load carrying capacity of single and group of piles

SEMESTER V	
MUNICIPAL WASTEWATER ENGINEERING (18CV55)	
18CV55.1	Select the appropriate sewer appurtenances and materials in sewer network.
18CV55.2	Design the sewers network and understand the self-purification process in flowing water.
18CV55.3	Design the various physic- chemical treatment units
18CV55.4	Design the various biological treatment units
18CV55.5	Design various AOPs and low cost treatment units.

SEMESTER V	
HIGHWAY ENGINEERING (18CV56)	
18CV56.1	Acquire the capability of proposing a new alignment or re-alignment of existing roads, conduct necessary field investigation for generation of required data
18CV56.2	Evaluate the engineering properties of the materials and suggest the suitability of the same for pavement construction
18CV56.3	Design road geometrics, structural components of pavement and drainage
18CV56.4	Evaluate the highway economics by few select methods and also will have a basic knowledge of various highway financing concepts.

SEMESTER V	
SURVEYING PRACTICE (18CVL57)	

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

18CVL57.1	Apply the basic principles of engineering surveying and for linear and angular measurements.
18CVL57.2	Comprehend effectively field procedures required for a professional surveyor.
18CVL57.3	Use techniques, skills and conventional surveying instruments necessary for engineering practice.

SEMESTER V	
CONCRETE AND HIGHWAY MATERIALS LABORATORY (18CVL58)	
18CVL58.1	Able to interpret the experimental results of concrete and highway materials based on laboratory tests
18CVL58.2	Determine the quality and suitability of cement.
18CVL58.3	Design appropriate concrete mix Using Professional codes
18CVL58.4	Determine strength and quality of concrete
18CVL58.5	Evaluate the strength of structural elements using NDT techniques
18CVL58.6	Test the soil for its suitability as sub grade soil for pavements

SEMESTER V	
ENVIRONMENTAL STUDIES (18CIV59)	
18CIV59.1	Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
18CIV59.2	Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment
18CIV59.3	Demonstrate ecology knowledge of a complex relationship between biotic and a biotic components
18CIV59.4	Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

SEMESTER VI	
DESIGN OF STEEL STRUCTURAL ELEMENTS (18CV61)	
18CV61.1	Possess knowledge of Steel Structures Advantages and Disadvantages of Steel structures, steel code provisions and plastic behaviour of structural steel
18CV61.2	Understand the Concept of Bolted and Welded connections
18CV61.3	Understand the Concept of Design of compression members, built-up columns and columns splices
18CV61.4	Understand the Concept of Design of tension members, simple slab base and gusseted base
18CV61.5	Understand the Concept of Design of laterally supported and un-supported steel beams

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob: 722262724, 7026262725, mail: principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

SEMESTER VI	
APPLIED GEOTECHNICAL ENGINEERING (18CV62)	
18CV62.1	Ability to plan and execute geotechnical site investigation program for different civil engineering projects
18CV62.2	Understanding of stress distribution and resulting settlement beneath the loaded footings on sand and clayey soils
18CV62.3	Ability to estimate factor of safety against failure of slopes and to compute lateral pressure distribution behind earth retaining structures
18CV62.4	Ability to determine bearing capacity of soil and achieve proficiency in proportioning shallow isolated and combined footings for uniform bearing pressure
18CV62.5	Capable of estimating load carrying capacity of single and group of piles

SEMESTER VI	
HYDROLOGY AND IRRIGATION ENGINEERING (18CV63)	
18CV63.1	Understand the importance of hydrology and its components.
18CV63.2	Measure precipitation and analyze the data and analyze the losses in precipitation
18CV63.3	Estimate runoff and develop unit hydrographs
18CV63.4	Find the benefits and ill-effects of irrigation.
18CV63.5	Find the quantity of irrigation water and frequency of irrigation for various crops.
18CV63.6	Find the canal capacity, design the canal and compute the reservoir capacity

SEMESTER VI	
SOLID WASTE MANAGEMENT (18CV642)	
18CV642.1	Analyse existing solid waste management system and to identify their drawbacks.
18CV642.2	Evaluate different elements of solid waste management system
18CV642.3	Suggest suitable scientific methods for solid waste management elements.
18CV642.4	Design suitable processing system and evaluate disposal sites.

SEMESTER VI	
OCCUPATIONAL HEALTH AND SAFETY (18CV653)	
18CV653.1	Identify hazards in the workplace that pose a danger or threat to their safety or health, or to others
18CV653.2	Control unsafe or unhealthy hazards and propose methods to eliminate the hazard.

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

18CV653.3	Present a coherent analysis of a potential safety or health hazard both verbally and in writing, citing the occupational Health and Safety Regulations as well as supported legislation
18CV653.4	Discuss the role of health and safety in the workplace pertaining to the responsibilities of workers, managers, supervisors
18CV653.5	Identify the decisions required to maintain protection of the environment, workplace as well as personal health and safety

SEMESTER VI	
SUSTAINABILITY CONCEPTS IN CIVIL ENGINEERING (18CV654)	
18CV654.1	Learn the sustainability concepts; understand the role and responsibility of engineers in sustainable development
18CV654.2	Quantify sustainability, and resource availability, Rationalize the sustainability based on scientific merits.
18CV654.3	Understand and apply sustainability concepts in construction practices, designs, product developments and processes across various engineering disciplines
18CV654.4	Make a decision in applying green engineering concepts and become a lifelong advocate of sustain ability in society

SEMESTER VI	
SOFTWARE APPLICATION LABORATORY (18CVL66)	
18CVL66.1	use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work

SEMESTER VI	
ENVIRONMENTAL ENGINEERING LABORATORY (18CVL67)	
18CVL67.1	Acquire capability to conduct experiments and estimate the concentration of different parameters
18CVL67.2	Compare the result with standards and discuss based on the purpose of analysis
18CVL67.3	Determine type of treatment, degree of treatment for water and waste water
18CVL67.4	Identify the parameter to be analyzed for the student project work in environmental stream

SEMESTER VI	
EXTENSIVE SURVEY PROJECT (18CVEP68)	
18CVEP68.1	Apply Surveying knowledge and tools effectively for the projects
18CVEP68.2	Understanding Task environment, Goals, responsibilities, Task focus, working in Teams towards common goals, Organizational performance expectations,

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

	technical and behavioral competencies.
18CVEP68.3	Application of individual effectiveness skills in team and organizational context, goal setting, time management, communication and presentation skills
18CVEP68.4	Professional etiquettes at workplace, meeting and general
18CVEP68.5	Establishing trust based relationships in teams & organizational environment
18CVEP68.6	Orientation towards conflicts in team and organizational environment, Understanding sources of conflicts, Conflict resolution styles and techniques

SEMESTER VII	
QUALITY SURVEYING AND CONTRACT MANAGEMENT (18CV71)	
18CV71.1	Taking out quantities and work out the cost and preparation of abstract for the estimated cost for various civil engineering works
18CV71.2	Prepare detailed and abstract estimates for various road works, structural works and water supply and sanitary works
18CV71.3	Prepare the specifications and analyze the rates for various items of work
18CV71.4	Assess contract and tender documents for various construction works.
18CV71.5	Prepare valuation reports of buildings

SEMESTER VII	
DESIGN OF RCC AND STEEL STRUCTURES (18CV72)	
18CV72.1	Students will acquire the basic knowledge in design of RCC and Steel Structures
18CV72.2	Students will have the ability to follow design procedures as per codal provisions and skills to arrive at structurally safe RC and Steel members

SEMESTER VII	
AIR POLLUTION AND CONTROL (18CV732)	
18CV732.1	Identify the major sources of air pollution and understand their effects on health and environment.
18CV732.2	Evaluate the dispersion of air pollutants in the atmosphere and to develop air quality models
18CV732.3	Ascertain and evaluate sampling techniques for atmospheric and stack pollutants.
18CV732.4	Choose and design control techniques for particulate and gaseous emissions.

SEMESTER VII	
EARTHQUAKE ENGINEERING (18CV741)	
18CV741.1	Acquire basic knowledge of engineering seismology

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

18CV741.2	Develop response spectra for a given earthquake time history and its implementation to estimate response of a given structure
18CV741.3	Understanding of causes and types of damages to civil engineering structures during different earthquake scenarios
18CV741.4	Analyze multi-storied structures modeled as shear frames and determine lateral force distribution due to earthquake input motion using IS-1893 procedures.
18CV741.5	Comprehend planning and design requirements of earthquake resistant features of RCC and Masonry structures thorough exposure to different IS-codes of practices.

SEMESTER VII	
DESIGN CONCEPT OF BUILDINGSERVICES (18CV742)	
18CV742.1	Describe the basics of house plumbing and waste water collection and disposal.
18CV742.2	Discuss the safety and guidelines with respect to fire safety
18CV742.3	Describe the issues with respect to quantity of water, rain water harvesting and roof top harvesting.
18CV742.4	Understand and implement the requirements of thermal comfort in buildings.

SEMESTER VII	
DESIGN OF HYDRAULIC STRUCTURES (18CV744)	
18CV744.1	Check the stability of gravity dams and design the dam.
18CV744.2	Estimate the quantity of seepage through earth dams
18CV744.3	Design spillways and aprons for various diversion works.
18CV744.4	Select particular type of canal regulation work for canal network.

SEMESTER VII	
COMPUTER AIDED DETAILING OF STRUCTURES (18CVL76)	
18CVL76.1	students will be able to Prepare detailed working drawings

SEMESTER VII	
GEOTECHNICAL ENGINEERING LABORATORY (18CVL77)	
18CVL77.1	Physical and index properties of the soil
18CVL77.2	Classify based on index properties and field identification
18CVL77.3	To determine OMC and MDD, plan and assess field compaction program
18CVL77.4	Shear strength and consolidation parameters to assess strength and deformation characteristics
18CVL77.5	In-situ shear strength characteristics (SPT-Demonstration)

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

SEMESTER VIII	
DESIGN OF PRE-STRESSED CONCRETE (18CV81)	
18CV81.1	Understand the requirement of PSC members for present scenario.
18CV81.2	Analyse the stresses encountered in PSC element during transfer and at working
18CV81.3	Understand the effectiveness of the design of PSC after studying losses
18CV81.4	Capable of analyzing the PSC element and finding its efficiency.
18CV81.5	. Design PSC beam for different requirements

SEMESTER VIII	
REHABILITATION AND RETROFITTING (18CV824)	
18CV824.1	Identify the causes for structural (Concrete) deterioration
18CV824.2	Assess the type and extent of damage and carry out damage assessment of structures through various types of tests
18CV824.3	Recommend maintenance requirements of the buildings and preventive measures against influencing factors.
18CV824.4	Select suitable material and suggest an appropriate method for repair and rehabilitation.

SEMESTER VIII	
PAVEMENT DESIGN (18CV825)	
18CV825.1	Systematically generate and compile required data's for design of pavement (Highway & Airfield).
18CV825.2	Analyze stress, strain and deflection by boussinesq's, bur mister's and westergaard's theory.
18CV825.3	Design rigid pavement and flexible pavement conforming to IRC58-2002 and IRC37-2001.
18CV825.4	Evaluate the performance of the pavement and also develops maintenance statement based on site specific requirements

SEMESTER VIII	
PROJECT WORK PHASE-2 (18CVP83)	
18CVP83.1	Describe the project and be able to defend it
18CVP83.2	Develop critical thinking and problem solving skills.
18CVP83.3	Learn to use modern tools and techniques
18CVP83.4	Communicate effectively and to present ideas clearly and coherently both in written and oral forms.
18CVP83.5	Develop skills to work in a team to achieve common goal.
18CVP83.6	Develop skills of project management and finance

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)
Affiliated to Visvesvaraya Technological University, Belagavi
Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NBA (ECE & CSE)


Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka Ph: 08258-262725;
Mob:722262724,7026262725,mail:principalaiet08@gmail.com

DEPARTMENT OF CIVIL ENGINEERING

18CVP83.7	Develop skills of self-learning, evaluate their learning and take appropriate actions to improve it
18CVP83.8	Prepare them for life-long learning to face the challenges and support the technological changes to meet the societal needs

SEMESTER VIII	
TECHNICAL SEMINAR (18CVS84)	
18CVS84.1	Develop knowledge in the field of Civil Engineering and other disciplines through independent learning and collaborative study.
18CVS84.2	Identify and discuss the current, real-time issues and challenges in engineering & technology.
18CVS84.3	Develop written and oral communication skills
18CVS84.4	Explore concepts in larger diverse social and academic contexts.
18CVS84.5	Apply principles of ethics and respect in interaction with others.
18CVS84.6	Develop the skills to enable life-long learning.

SEMESTER VIII	
INTERNSHIP /PROFESSIONAL PRACTICE (18CVI85)	
18CVI85.1	Enable students to get the field exposure and experience


H.O.D.
 Dept. of Civil Engineering
 Alva's Institute of Engg. & Technology
 Mijar, Moodbidri - 574 225