



DR.T.THIMMAIAH INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING

F.No:DrTTIT/IQAC/2020-21/075L

Semester: 3

Course1: Transform Calculus, Fourier series and Numerical Techniques

Course1 Code: 18MAT31

Course Outcomes: After studying this course, the students will be able to:

CO 1	Use Laplace transforms and inverse Laplace transforms in solving differential/ Integral equation arising in network analysis, control systems and other field of engineering
CO 2	Demonstrate Fourier series to study the behavior of periodic functions and their applications in system communication, digital signal processing and field theory
CO 3	Make use of Fourier transform and Z transform to illustrate discrete/ continuous function arising in wave and heat propagation, signals and systems
CO 4	Solve I and II order ODE's arising in engineering problems using single and multi step numerical methods.
CO 5	Determine the extremals of functional using calculus of variations and solve problems arising in dynamics of rigid bodies and vibrational analysis.

Course Instructor: *Shailaja*

Signature *M. Maneela*

Course2: Strength of Materials

Course2 Code: 18CV32

Course Outcomes: After studying this course, the students will be able to:

CO 1	To evaluate the basic concepts of the stresses and strains for different materials and strength of structural elements.
CO 2	To evaluate the development of internal forces and resistance mechanism for one dimensional and two-dimensional structural elements.
CO 3	To analyses different internal forces and stresses induced due to representative loads on structural elements
CO 4	To evaluate slope and deflections of beams.
CO 5	To evaluate the behavior of torsion members, columns and struts.

Course Instructor: *M. MANEELA*

Signature- *M. Maneela*


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Course3: Fluid Mechanics**Course3 Code: 18CV33**


Course Outcomes: After studying this course, the students will be able to:

CO 1	Possess a sound knowledge of fundamental properties of fluids and fluid Continuum
CO 2	Compute and solve problems on hydrostatics, including practical applications
CO 3	Apply principles of mathematics to represent kinematic concepts related to fluid flow
CO 4	Apply fundamental laws of fluid mechanics and the Bernoulli's principle for practical applications
CO 5	Compute the discharge through pipes and over notches and weirs

Course Instructor: **MANJUNATHA SINGH**Signature **Course4: Building Materials and construction****Course4 Code: 18CV34**

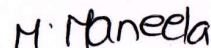
Course Outcomes: After studying this course, the students will be able to:

CO 1	Select suitable materials for buildings and adopt suitable construction techniques.
CO 2	Decide suitable type of foundation based on soil parameters
CO 3	Supervise the construction of different building elements based on suitability
CO 4	Exhibit the knowledge of building finishes and form work requirements

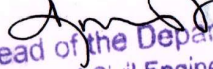
Course Instructor: **Sonamma**Signature **Course5: Basic Surveying****Course5 Code: 18CV35**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Possess a sound knowledge of fundamental principles Geodetics
CO 2	Measurement of vertical and horizontal plane, linear and angular dimensions to arrive at solutions to basic surveying problems
CO 3	Capture geodetic data to process and perform analysis for survey problems]
CO 4	Analyze the obtained spatial data and compute areas and volumes. Represent 3D data on plane figures as contours

Course Instructor: **Manuela. M**Signature  **M. Maneela**


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Course6: Engineering Geology**Course6 Code: 18CV36**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor:

Dr. K. Ramesh

Signature

*[Signature]***Course7: Computer aided building planning and drawing****Course7 Code: 18CVL37**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Prepare, read and interpret the drawings in a professional set up
CO 2	Know the procedures of submission of drawings and development working and submission drawings for buildings
CO 3	Planned design residential or public building as per the given requirements

Course Instructor:

Praveen. k

Signature

*[Signature]***Course8: Building Material testing Laboratory****Course8 Code: 18CVL38**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Reproduce the basic knowledge of mathematics and engineering in finding the strength in tension, compression, shear and torsion.
CO 2	Identify, formulate and solve engineering problems of structural elements subjected to flexure.
CO 3	Evaluate the impact of engineering solutions on the society and also will be aware of contemporary issues regarding failure of structures due to unsuitable materials

Course Instructor:

Manjunatha Singh

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Semester: 4th

Course1: Complex Analysis, Probability and Statistical Methods Course1 Code: 18MAT41

Course Outcomes: After studying this course, the students will be able to:

CO 1	Use the concept of analytic functions and complex potential to solve the problems arising in electromagnetic field theory
CO 2	Utilize conformal transformation and complex integral arising in aerofoil theory
CO 3	Apply discrete and continuous probability distributions arising in engineering fields.
CO 4	Make use of correlation regression analysis to fit suitable mathematical module for the statistical data.
CO 5	Construct joint probability distribution and demonstrate validity of testing the hypothesis.

Course Instructor: *Shailaja*

Signature *M. Monreela*

Course2: Analysis of determinate structures

Course2 Code: 18CV42

Course Outcomes: After studying this course, the students will be able to:

CO 1	Identify different forms of structural systems.
CO 2	Construct ILD and analyses the beams and trusses subjected to moving loads
CO 3	Understand the energy principles and energy theorems and its applications to determine the deflections of trusses and beams
CO 4	Determine the stress resultants in arches and cables.

Course Instructor: *Prashanthi.C.S*

Signature *[Signature]*

Course3: Applied Hydraulics

Course3 Code: 18CV43

Course Outcomes: After studying this course, the students will be able to:

CO 1	Apply dimensional analysis to develop mathematical modeling and compute the parametric values in prototype by analyzing the corresponding model
CO 2	Design the open channels of various cross sections including economical channel sections
CO 3	Apply Energy concepts to flow in open channel sections, Calculate Energy dissipation,
CO 4	Compute water surface profiles at different conditions
CO 5	Design turbines for the given data, and to know their operation characteristics under different operating conditions

Course Instructor: *Manjunatha Singh*

Signature *[Signature]*

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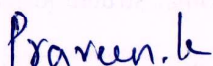
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Course4:Concrete Technology**Course4 Code: 18CV44**

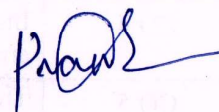
Course Outcomes: After studying this course, the students will be able to:

CO 1	Relate material characteristics and their influence on microstructure of concrete.
CO 2	Distinguish concrete behavior based on its fresh and hardened properties
CO 3	Illustrate proportioning of different types of concrete mixes for required fresh and hardened properties using professional codes
CO 4	Adopt suitable concreting methods to place the concrete based on requirement.
CO 5	Select a suitable type of concrete based on specific application

Course Instructor:



Signature

**Course5:Advanced surveying****Course5 Code:18CV45**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Apply the knowledge of geometric principles to arrive at surveying problems
CO 2	Use modern instruments to obtain geo-spatial data and analyse the same to appropriate engineering problems
CO 3	Capture geodetic data to process and perform analysis for survey problems with the use of electronic instruments;
CO 4	Design and implement the different types of curves for deviating type of alignments

Course Instructor:

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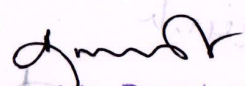
Course6: Water supply and treatment Engineering**Course6 Code: 18CV46**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Estimate average and peak water demand for a community.
CO 2	Evaluate available sources of water, quantitatively and qualitatively and make appropriate choice for a community
CO 3	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system.
CO 4	Design a comprehensive water treatment and distribution system to purify and distribute water to the required quality standards.

Course Instructor: Sonamma

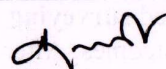
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Course7: Engineering Geology laboratory**Course7 Code: 18CVL47**

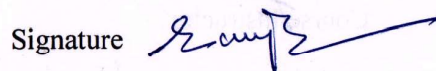
Course Outcomes: After studying this course, the students will be able to:

CO 1	The students able to identify the minerals, rocks and utilize them effectively in civil engineering practices
CO 2	The students will interpret and understand the geological conditions of the area for implementation of civil engineering project
CO 3	The students will interpret subsurface information such as thickness of soil, weathered zone, depth of hard rock and saturated zone by using geophysical methods.
CO 4	The students will learn the techniques in the interpretation of LANDSAT Imageries to find out the lineaments and other structural features for the given area.
CO 5	The students will be able to identify the different structures in the field.

Course Instructor: *Dr. Ramesh*

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Course8: Fluid mechanics and hydraulics mechanics laboratory**Course8 Code: 18CVL48**

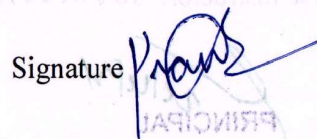
Course Outcomes: After studying this course, the students will be able to:

CO 1	Properties of fluids and the use of various instruments for fluid flow measurement.
CO 2	Working of hydraulic machines under various conditions of working and their characteristics.

Course Instructor: *Manjunatha Singh*

 Signature
Semester: 5**Course1: Construction Management and Entrepreneurship****Course1 Code: 18CV51**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Prepare a project plan based on requirements and prepare schedule of a project by understanding the activities and their sequence
CO 2	Understand labor output, equipment efficiency to allocate resources required for an activity / project to achieve desired quality and safety
CO 3	Analyze the economics of alternatives and evaluate benefits and profits of a construction activity based on monetary value and time value
CO 4	Establish as an ethical entrepreneur and establish an enterprise utilizing the provisions offered by the federal agencies

Course Instructor: *Praveen*

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Course2: Analysis of indeterminate structures**Course2 Code: 18CV52**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Determine the moment in indeterminate beams and frames having variable moment of inertia and subsidence using slope deflection method
CO 2	Determine the moment in indeterminate beams and frames of no sway and sway using moment distribution method
CO 3	Construct the bending moment diagram for beams and frames by Kani's method
CO 4	Construct the bending moment diagram for beams and frames using flexibility method
CO 5	Analyze the beams and indeterminate frames by system stiffness method

Course Instructor: Prashanthi C.S

Signature

Course3: Design of RC structural elements**Course3 Code: 18CV53**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Understand the design philosophy and principles
CO 2	Solve engineering problems of RC elements subjected to flexure, shear and torsion
CO 3	Demonstrate the procedural knowledge in designs of RC structural elements such as slabs, columns and footings
CO 4	Owns professional and ethical responsibility

Course Instructor: Sonamma

Signature

Course4: Basic Geotechnical Engineering**Course4 Code: 18CV54**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor: M. Maneeela

Signature M. Maneeela


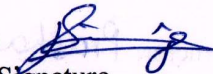
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Course5: Municipal waste water Engineering**Course5 Code: 18CV55**


Course Outcomes: After studying this course, the students will be able to:

CO 1	Select the appropriate sewer appurtenances and materials in sewer network.
CO 2	Design the sewers network and understand the self-purification process in flowing water
CO 3	Design the various physic- chemical treatment units
CO 4	Design the various biological treatment units
CO 5	Design various AOPs and low cost treatment units.

Course Instructor: Signature **Course6: Highway Engineering****Course6 Code: 18CV56**

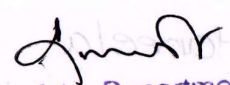
Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor: Signature **Course7: Surveying Practice****Course7 Code: 18CVL57**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor: **M. Maneela**Signature **M. Maneela**
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Course8: Concrete and Highway Materials Laboratory Course8 Code: 18CVL58

Course Outcomes: After studying this course, the students will be able to:

CO 1	Able to interpret the experimental results of concrete and highway materials based on laboratory tests
CO 2	Determine the quality and suitability of cement.
CO 3	Design appropriate concrete mix Using Professional codes.
CO 4	Determine strength and quality of concrete.
CO 5	Evaluate the strength of structural elements using NDT techniques.
CO 6	Test the soil for its suitability as sub grade soil for pavements

Course Instructor:

Manjunatha Singh

Signature



Semester: 6

Course1: Design of steel structural elements

Course1 Code: 18CV61

Course Outcomes: After studying this course, the students will be able to:

CO 1	Possess knowledge of Steel Structures Advantages and Disadvantages of Steel structures, steel code provisions and plastic behavior of structural steel
CO 2	Understand the Concept of Bolted and Welded connections
CO 3	Understand the Concept of Design of compression members, built-up columns and columns splices
CO 4	Understand the Concept of Design of tension members, simple slab base and gusseted base.
CO 5	Understand the Concept of Design of laterally supported and un-supported steel beams.

Course Instructor:

Prasanthi C.S

Signature



Course2: Applied Geotechnical Engineering

Course2 Code: 18CV62

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor:

M. Maneela

Signature

M. Maneela

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Course3: Hydrology and Irrigation Engineering**Course3 Code: 18CV63**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor:

Course4: Solid waste Management

Signature

Course4 Code: 18CV642

Course Outcomes: After studying this course, the students will be able to:

CO 1	Analyze existing solid waste management system and to identify their
CO 2	Evaluate different elements of solid waste management system.
CO 3	Suggest suitable scientific methods for solid waste management elements.
CO 4	Design suitable processing system and evaluate disposal sites.

Course Instructor:

Signature

Course5: Alternate building Materials**Course5 Code: 18CV643**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Solve the problems of Environmental issues concerned to building materials and cost-effective building technologies
CO 2	Select appropriate type of masonry unit and mortar for civil engineering constructions; also, they are able to Design Structural Masonry Elements under Axial Compression.
CO 3	Analyze different alternative building materials which will be suitable for specific climate and in an environmentally sustainable manner. Also capable of suggesting suitable agro and industrial wastes as a building material.
CO 4	Recommend various types of alternative building materials and technologies and design a energy efficient building by considering local climatic condition

Course Instructor:

Signature

M. Mareeda

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Course6: Software application Laboratory**Course6 Code: 18CVL66**

Course Outcomes: After studying this course, the students will be able to:

CO 1	use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work
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Course Instructor: Sowmya L

Signature

Course7: Environmental Engineering Laboratory**Course7 Code: 18CVL67**

Course Outcomes: After studying this course, the students will be able to:

CO 1	use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work
CO 2	Compare the result with standards and discuss based on the purpose of analysis.
CO 3	Determine type of treatment, degree of treatment for water and waste water.
CO 4	Identify the parameter to be analyzed for the student project work in environmental stream

Course Instructor: Silviya L

Signature

Course8: Extensive survey project**Course8 Code: 18CVEP68**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Apply Surveying knowledge and tools effectively for the projects
CO 2	Understanding Task environment, Goals, responsibilities, Task focus, working in Teams towards common goals, Organizational performance expectations,
CO 3	Application of individual effectiveness skills in team and organizational context, goal setting, time management, communication and presentation skills.
CO 4	Professional etiquettes at workplace, meeting and general
CO 5	Establishing trust-based relationships in teams & organizational environment
CO 6	Orientation towards conflicts in team and organizational environment, Understanding sources of conflicts, Conflict resolution styles and techniques

Course Instructor: Manjunatha Singh

Signature

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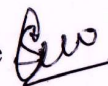
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Course4: Water supply and treatment Engineering**Course4 Code: 17CV64**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Estimate average and peak water demand for a community.
CO 2	Evaluate available sources of water, quantitatively and qualitatively and make appropriate choice for a community
CO 3	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system
CO 4	Design a comprehensive water treatment and distribution system to purify and distribute water to the required quality standards.

Course Instructor: *Sonamma*Signature **Course5: Solid Waste Management****Course5 Code: 17CV651**


Course Outcomes: After studying this course, the students will be able to:

CO 1	Analyze existing solid waste management system and to identify their drawbacks
CO 2	Evaluate different elements of solid waste management system.
CO 3	Suggest suitable scientific methods for solid waste management elements
CO 4	Design suitable processing system and evaluate disposal sites.

Course Instructor: *Silviya C*Signature **Course6: Alternate Building Materials****Course6 Code: 17CV653**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Solve the problems of Environmental issues concerned to building materials and cost-effective building technologies
CO 2	Suggest appropriate type of masonry unit and mortar for civil engineering constructions; also, they are able to Design Structural Masonry Elements under Axial Compression
CO 3	Analyze different alternative building materials which will be suitable for specific climate and in an environmentally sustainable manner. Also capable of suggesting suitable agro and industrial wastes as a building material
CO 4	Recommend various types of alternative building materials and technologies and design a energy efficient building by considering local climatic condition and building material


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Course Instructor:

Signature

Course7: Software Application Lab

Course7 Code: 17CVL67

Course Outcomes: After studying this course, the students will be able to:

CO 1	use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work
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Course Instructor: Sowmya.L

Signature

Course8: Extensive Survey Project

Course8 Code: 17CVL68

Course Outcomes: After studying this course, the students will be able to:

CO 1	Apply Surveying knowledge and tools effectively for the projects
CO 2	Understanding Task environment, Goals, responsibilities, Task focus, working in Teams towards common goals, Organizational performance expectations, technical and behavioral competencies
CO 3	Application of individual effectiveness skills in team and organizational context, goal setting, time management, communication and presentation skills.
CO 4	Establishing trust-based relationships in teams & organizational environment
CO 5	Orientation towards conflicts in team and organizational environment, Understanding sources of conflicts, Conflict resolution styles and techniques

Course Instructor:

Signature

Semester: 7

Course1: Municipal and industrial waste water Engineering

Course1 Code: 17CV71

Course Outcomes: After studying this course, the students will be able to:

CO 1	Acquires capability to design sewer and Sewerage treatment plant
CO 2	Evaluate degree of treatment and type of treatment for disposal, reuse and recycle
CO 3	Identify waste streams and design the industrial waste water treatment plant.
CO 4	Manage sewage and industrial effluent issues.

Course Instructor:

Signature

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Course2: Design of RCC and steel structures**Course2 Code: 17CV72**

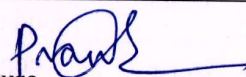
Course Outcomes: After studying this course, the students will be able to:

CO 1	Students will acquire the basic knowledge in design of RCC and Steel Structures
CO 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

Course Instructor:



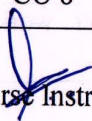
Signature

**Course3: Hydrology and irrigation Engineering****Course3 Code: 17CV73**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor:



Signature

**Course4: Ground water and hydraulics****Course4 Code: 17CV742**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Find the characteristics of aquifers.
CO 2	Estimate the quantity of ground water by various methods
CO 3	Locate the zones of ground water resources.
CO 4	Select particular type of well and augment the ground water storage

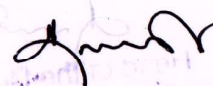
Course Instructor:



Signature




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Course5: Urban Transportation and planning**Course5 Code: 17CV751**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Design, conduct and administer surveys to provide the data required for transportation planning
CO 2	Supervise the process of data collection about travel behavior and analyze the data for use in transport planning
CO 3	Develop and calibrate modal split, trip generation rates for specific types of land use developments
CO 4	Adopt the steps that are necessary to complete a long-term transportation plan

Course Instructor: *Silviya.L*Signature *M. Maneela***Course6: Environmental Engineering laboratory****Course6 Code: 17CVL76**

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor: *Silviya.L*Signature *[Signature]***Course7: Computer aided detailing of structures****Course7 Code: 17CVL77**

Course Outcomes: After studying this course, the students will be able to:

CO 1	Prepare Civil Engineering structural drawings using AutoCAD software.
CO 2	Apply the tools of AUTOCAD software for structural detailing of RCC structural elements
CO 3	Determine type of treatment, degree of treatment for water and waste water.
CO 4	Apply the tools of AUTOCAD software for structural detailing of Steel connections

Course Instructor: *Pranav*Signature *[Signature]*

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Semester: 8

Course1: Quantity Surveying and Contracts Management

Course1 Code: 15CV81

Course Outcomes: After studying this course, the students will be able to:

CO 1	Prepare detailed and abstract estimates for roads and building
CO 2	Prepare valuation reports of buildings
CO 3	Interpret Contract documents of domestic and international construction works

Course Instructor:

Praveen

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Course2: Design of Pre-Stressed Concrete Elements

Course2 Code: 15CV82

Course Outcomes: After studying this course, the students will be able to:

CO 1	Understand the requirement of PSC members for present scenario.
CO 2	Analyze the stresses encountered in PSC element during transfer and at
CO 3	Understand the effectiveness of the design of PSC after studying losses
CO 4	Capable of analyzing the PSC element and finding its efficiency
CO 5	Design PSC beam for different requirements

Course Instructor: *Sonamma*

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Course3: Pavement design

Course3 Code: 15CV833

Course Outcomes: After studying this course, the students will be able to:

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

Course Instructor:

Silviya

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