

Pedagogical Initiatives 2023-2024

S.No.	Name of the Faculty	Year/ Sem	Course Code	Name of the Course	Date	Course Topic	Pedagogical Method Followed	Addressed Course Outcome (COs)	Impact on Pedagogical Initiatives
1	Mr. S Venkat Raman & Mr. P Kalaivanan	IV/VII	U21CE702	Estimation and Quantity Surveying	22.07.2023	Estimation and Quantity Surveying	Expert Talk	To prepare detailed estimates of various items of work.	The students will be able to prepare a detailed estimate for different types of structures. The students will be able to estimate of quantities for residential building and calculate the quantities for various items of work.
2	Dr. R. Saravanakumar & Mr. S. Elavarasan	III/V	U21CE501	Design of Reinforced concrete structures	22.07.2023	Introduction to limit state method	Expert Talk	CO 1 : Students able to apply usage of IS codes in design of reinforced concrete structures	Students able to understand fundamental concepts and principles of limit state method
3	Dr.K.S.Elango & Dr.S.Anandaraj	III/V	U21CE502	Structural Analysis I	24.07.2023	Analysis of Continuous Beam	Peer to Peer Learning	Examine the continuous beams and rigid frame analysis by slope deflection method.	Peer to Peer learning practice makes students to solve the problems in collaborative approach that would help in effective knowledge sharing.
4	R.Kavitha	III/V	U21CEP03	Prefabricated Structures	25.07.2023	Comparison of precast construction method and in-situ method	Sole activity	To compare the precast construction method and in-situ method.	To compare the precast construction method and in-situ method.
5	Dr.K.S.Elango & Dr.S.Anandaraj	III/V	U21CE502	Structural Analysis I	28.07.2023	Arches	Analytical Race Activity	Identify and analyze different types of arches.	Analytical race activity between student teams helps in solving tricky problems in competitive approach that improves the writing practice skill
6	Mrs.C.Vinodhini	III / V	U19CEX05	Disaster Management	31.07.2023	Effects of disaster	Seminar Presentation	To learn the effects of disaster - To realize Human vale CO1	Students able to understand and overcome the situations of disaster
7	R.Kavitha	III/V	U21CEP03	Prefabricated Structures	28.08.2023	Economical cross section of prefabricated structures	Flipped classroom activity	To design the cross section of structural elements based on efficiency of material used	Students able to design the economical cross section of prefabricated structures by flipped classroom activity
8	Mr. S. Logeswaran & S. Bharani	III / V	U19CEX05	Disaster Management	August 2nd week	“Disaster Mitigation and Management”	Collaborative learning	CO5: To know about various disaster management techniques	Holistic and Practical approach towards disaster mitigation and management
9	Mr. S. Logeswaran	III / V	U21CEP22	Railways, Airports and Harbour Engineering	August 2nd week	“Airport passenger facilities and services”	Flipped classroom activity	CO4: Interpret the requirements of air transport management	Understanding towards the concept of airport operations , planning and management
10	P. Indhiradevi	IV/VII	U19CE19	Traffic engineering and Management	August 2nd week	Traffic Volume Survey	Fishbowl activity	To understand the concept of Traffic engineering and Traffic Surveys	The fishbowl activity is an interactive and participatory method where a small group of participants engages in a discussion or activity while the larger group observes. Here are some potential impacts of incorporating a fishbowl activity into a traffic volume survey course:
11	Dr.K.S.Elango & Dr.S.Anandaraj	III/V	U21CE502	Structural Analysis I	06.09.2023	Analysis of Frames	Demo through Software	Analyze the continuous beams and rigid frames by moment distribution method.	Gained knowledge on behavior of beam and column members when subjected to different conditions of loading
12	Dr. R. Saravanakumar & Mr. S. Elavarasan	III/V	U21CE501	Design of Reinforced concrete structures	08.09.2023	Detailing of reinforcements in beams and slabs	Demonstration through models	CO 2 : Identify the types and design of beams and slabs	Students able to identify the optimal reinforcement arrangements and detailing configurations
13	Mrs. B. S. Meenakshi	II/III	U21CE307	Computer Aided Drafting Laboratory	12.09.2023	Infrastructure Development	Model Making	To prepare drawings with proper drafting standards. To draw the plan, elevation and section of the different types of the building.	CAD models provide a clear visual representation of the design concept, making it easier for stakeholders to understand and visualize the final product. This improves communication between designers, engineers, and clients.

14	R.Kavitha	III/V	U21CEP03	Prefabricated Structures	21.09.2023	Prefabricated connections	Quiz activity	Students learn the connections of prefabricated structures by quiz activity	Through this quiz activity we can assess student knowledge. Students are engaged in fun learning methods and enhance general knowledge in connections
15	Dr. S. Kanmani, Mr.S.Vinoth & K. Maruthi Venkatesh	IV/VII	U19CEX02	Waste Management	26.09.2023	Municipal Solid Waste Management	Expert Talk	To provide adequate information on waste management practices.	Upon the visit, the student will be able to understand the various functions involved in the collection, treatment and disposal methods of municipal solid wastes. Also, they gained knowledge on the 4R principle through the visit.
16	Dr.R.Dharmaraj	III/V	U21CE301	Concrete Technology	22.12.2023	The Future of Concrete	Expert Talk	To learn the characteristics on various concrete making materials as per IS codal provisions and to understand their properties.	Students were educated on various aspects of cement, including its types, chemical composition, and testing procedures. Additionally, they gained knowledge about the classification and characteristics of aggregates, as well as the quality of water suitable for use in concrete
17	Dr.V.Rajeshkumar	II/IV	U21CE304	Engineering survey	25.12.2023	Drone Survey	One credit course	Students able to learn the basics of the drone usage, setup, reading and output as a drawing.	1. To determine the angle, distance, and coordinate measurement. 2. To survey the given area using drone instruments. 3. To prepare report of the surveyed area.
18	Dr.V.Rajeshkumar	III/V	U21CEP16	Safety Engineering	26.12.2023	Site safety work	Site visit	Students able to learn the safety process to be carried before starting any construction work.	1. Fall prevention and fall protection 2. Safety work procedures
19	Dr.S.Anandakumar	II / IV	U21CE302	Fluid Mechanics	December 1st week	“Major losses and minor losses in pipelines”	On-site learning	To demonstrate the working principle of major losses and minor losses in pipes	Learning experience on working models through laboratory experiments
20	Dr.S.Anandakumar	III/ VI	U21CEP12	Irrigation Engineering	December 1st week	“Infiltration Gallery”	On-site learning	To summarize the concept and working methods of infiltration galleries	Understanding working concepts on perforated pipes which is laid below the water table and collects ground water
22	Mr. S. Vinoth	III / V	U21CEP18	Building Services	19.01.2024	Electrical layout Installations and Drawings	Hands-on-training	CO2 - 2. To know the various types of mechanical and electrical services	Upon successful completion of this course, the student will be able to: 1. understand the various types of building services. 2. outline the electrical services requirements for a given building.
23	Mr. D. Vivek	III / VI	U21CEP23	Traffic Engineering and Management	31.01.2024	Road accident	Flipped classroom activity	Summarize the impact of traffic on environment	Students learned about the causes of road accidents and methods to mitigate the same
24	R.Kavitha	III/VI	U21CE603	Design of steel structures	31.01.24	Field visit	Skylight roof truss	Students witnessed the real-world application of theoretical knowledge gained in the classroom, particularly in the context of designing and constructing skylight roof trusses.	The site visit provided students with hands-on, experiential learning opportunities that complement traditional classroom instruction. This approach encourages active engagement and deeper understanding of complex concepts.
25	Dr.S.Anandakumar	III / VI	U21CEX05	Environment and Agriculture	5.02.2024	Environmental pollution	conceptual learning using ICT tools	understand the various aspects of ecology	The learning of concept that includes the biodiversity and wildlife from its root cause of extinction to the methods to make it protect and conserve through pictorial representation and graphical statistics.
26	Dr.K.S.Elango & Dr.S.Anandaraj	III/VI	U21CE602	Structural Analysis II	12.02.2024	ILD for Indeterminate Structures	Group Activity & Peer Learning	Analyze the continuous beams and Propped Cantilever beam	Gained knowledge on behavior of beam and column members when subjected to different conditions of loading

27	Mr.S.Logeswaran	II / IV	U21CE404	HIGHWAY ENGINEERING	01.03.2024	Route alignment survey using GIS	Hands-on-training	CO1: Determine highway planning and alignment	Students learned the route establishment and alignment survey through the modern method using GIS software. Also, they understand how to fix points to establish the route fixation and cordon points.
28	Mr.S.Logeswaran / Dr.S.Anandakumar	II / IV	U21CEX01	Environmental and Social Impact Assessment	01.03.2024	Economical evaluation of environmental impacts and cost benefit analysis	Experiential learning	CO4: Evaluate Socio-Economic Reports of Environmental Impacts	Seminar on economic valuation of environmental impacts enhance critical thinking by engaging students directly with complex valuation methods, improve collaborative skills through peer teaching and group discussions, and foster practical understanding by applying theoretical concepts to real-world environmental
29	Mr.S.Logeswaran / Dr.S.Anandakumar	II / IV	U21CEX01	Environmental and Social Impact Assessment	01.03.2024	Baseline monitoring	Flipped classroom activity	CO2: Infer the scope and screening of EIA developmental projects	Seminar on economic valuation of environmental impacts enhance critical thinking by engaging students directly with complex valuation methods, improve collaborative skills through peer teaching and group discussions, and foster practical understanding by applying theoretical concepts to real-world environmental
30	Mr.S.Logeswaran	II / IV	U21CE404	HIGHWAY ENGINEERING	06.03.2024	Bitumen and its types	On-Site learning	CO4: Identify various materials used	Students learned about the types of bitumen and its characteristics through field visit to Experience Engineering. Also, learned how to use different grade of bitumen under different climate conditions.
31	P.Indhiradevi	II/IV	U21CE402	Applied Hydraulic and Hydraulic Machinery	09.3.2024	Turbines	Field Visit to Bhavani Sagar Dam	Design and study the performance of various types of turbines	Hands-on demonstrations provide practical insights into turbine and pumps operation, design, and efficiency, fostering critical thinking and problem-solving skills
32	P.Indhiradevi	II/IV	U21CE402	Applied Hydraulic and Hydraulic Machinery	18.03.2024	Pumps	Field Visit to Ekki Pumps	Design and study the performance of various types of pumps	Hands-on demonstrations provide practical insights into turbine and pumps operation, design, and efficiency, fostering critical thinking and problem-solving skills
33	Dr.K.S.Elango & Dr.S.Anandaraj	I/II	U21CE202	Building Materials	21.03.2024 & 30.05.2024	Types of Construction Materials and its Properties	Laboratory Based Learning, L&T Experience Engineering	CO1: Understand the properties of stones, bricks and concrete blocks. CO2: Identify the ingredients to be used in manufacture of concrete along with its properties	Laboratory based teaching effectively helps students to understand the testing procedure of bricks, aggregates, cement and concrete which helps them to express well in written examination. Learning through experience engineering Centre helps students to have touch and feel experience about different types of
34	Mr. S. Ealavarasan	III / VI	U21CE401	Strength of materials II	23.03.2024	Structural columns	Expert talk	CO 3 : Students able to evaluate the load carrying capacity of columns and stresses induced in columns	Students learnt the importance of structural columns in the context of building stability and functionality
35	Mr. S.Vinoth	III / VI	U21CE605	Computer Aided Analysis and Design Laboratory	26.03.2024	Analysis and design of Multi-storey building using ETABS	Hands on Training in Lab	CO3 - Analysis and design of Multi-storey building	1. Apply structural engineering principles to design and analyze multi-storey buildings using industry-standard software (ETABS). 2. Develop a comprehensive understanding of multi-storey building behavior under various loading conditions through ETABS modeling.
36	Mr. S.Vinoth	III / VI	U21CEP19	Sustainable and Lean Construction	28.03.2024	Built a Sustainable Building with Lean Construction Principles	Hands on Training in Lab	CO3 - Understand the core concepts of lean construction tools and techniques and their importance in achieving productivity with quality and safety	1. Integrate Lean construction principles, tools, and technologies (value stream mapping, Last Planner System, BIM, IPD) to design and manage a sustainable building project. 2. Develop a comprehensive construction plan that minimizes waste, optimizes workflow, and prioritizes sustainable practices
37	Dr.R.Dharmaraj	III/VI	U21CEP36	Principles of Architecture	06.04.2024	Green Building Concepts	On-site learning	Upon the visit, Students analyze the characteristics of climate types and environment response in the building	To understand the fundamental concepts and theories of architecture drafting principles
38	P.Indhiradevi	III/VI	U21CEP21	Urban Planning and management	12.04.2024	Master Plan preparation	SOLE Activity	Summarize the development plans, formulation and evaluation techniques	Students engage in collaborative, internet-based problem-solving, which mirrors real-world urban planning challenges.
39	Dr.V.Rajeshkumar	IV/VIII	U19CEP13	Construction Planning and Scheduling	30.04.2024	Site visit	To know the methods of construction used in site and the material usage with choice of technology.	1. To learn the safety procedure. 2. To understand the safety importance.	

40	Mrs.C.Vinodhini	IV / VII	U19CE701	Construction Project Management	31.07.2024	Project life cycle	Peer to Peer Learning	Co1 - Student will be able to study the Project life cycle in construction	student will understand the project life cycle in construction
41	Mrs.C.Vinodhini	III/ VI	U21CEX08	E- Waste Management	05.04.2024	Electronic waste	Blended Learning	CO5 :Student will be able to Summarize the integrated e-waste management	The Students able to know the Principles for the Responsible and Sustainable Handling of Electronic Waste.
42	Mr. S. Yuvaraj	II/ III	U21CE303	Strength of Materials - I	25.11.2023	Types of beams	Experiential learning - Model making and Staad Pro analysis of beams	CO2: To determine the shear force and bending moment in beams	Students made models of different types of beams with the materials available. Also students have analyzed the beams using Staad Pro software.
43	Mr. S. Yuvaraj	II/IV	U21CE201	Engineering Mechanics	30.05.2024	Centre of Gravity and Moment of inertia	learning - Measuring the real time objects and finding out its centre of gravity and	CO4: Compute centroid and second moment of area of different sections	Students measured the dimensions of the real time objects in order to determine the centre of gravity and moment of inertia of the same.
44	Mr. S. Yuvaraj	II/IV	U21CE403	Soil Mechanics	08.03.2024	Sample collection for shear strength determination	Field visit to KPR Staff Quarters - Soil testing	CO4: Determine the shear strength of the soil specimen	Students clearly understood the process of sample collection at site at different depths and its importance in packing the same for determination of shear strength parameters at laboratory.
45	Mr.K.Maruthi venkatesh Dr.S.Kanmani	III/ VI	U21CE503	Environmental Engineering II	08.02.2024	WASTE WATER TREATMENT PROCESS	on site learning	based on waste water source treatment can be identified to remove particular pollutant	During visit students may able to learn the treatment sequence and treatment process of waste water
46	Mr.D.Vivek	IV / VII	U19CE701	Construction Project Management	31.07.2024	Project life cycle	Peer to Peer Learning	Co1 - Student will be able to study the Project life cycle in construction	student will understand the project life cycle in construction