ANNA UNIVERSITY, CHENNAL AFFILIATED INSTITUTIONS

R - 2013

B. E. CIVIL ENGINEERING

I TO VIII SEMESTERS CURRICULUM & SYLLABUS

SEMESTER I

SL. No.	COURSE	COURSE TITLE	L	Т	Р	С
THE	ORY					
1.	HS6151	Technical English - I	3	1	0	4
2.	MA6151	Mathematics – I	3	1	0	4
3.	PH6151	Engineering Physics – I	3	0	0	3
4.	CY6151	Engineering Chemistry – I	3	0	0	3
5.	GE6151	Computer Programming	3	0	0	3
6.	GE6152	Engineering Graphics	2	0	3	4
PRA	CTICAL					
7.	GE6161	Computer Practices Laboratory	0	0	3	2
8.	GE6162	Engineering Practices Laboratory	0	0	3	2
9.	GE6163	Physics and Chemistry Laboratory - I	0	0	2	1
		TOTAL	17	2	11	26

SEMESTER II

SL. No.	COURSE	COURSE TITLE	L	Т	P	С
THE						
1.	HS6251	Technical English - II	3	1	0	4
2.	MA6251	Mathematics – II	3	1	0	4
3.	PH6251	Engineering Physics – II	3	0	0	3
4.	CY6251	Engineering Chemistry – II	3	0	0	3
5.	GE6252	Basic Electrical and Electronics Engineering	4	0	0	4
6.	GE6253	Engineering Mechanics	3	1	0	4
PRA	CTICAL					
7.	GE6261	Computer Aided Drafting and Modeling Laboratory	0	1	2	2
8.	GE6262	Physics and Chemistry Laboratory - II	0	0	2	1
		· TOTAL	19	4	` 4	25

SEMESTER III

SL. No.	COURSE	COURSE TITLE	L	Т	P	С
THE	ORY					
1.	MA6351	Transforms and Partial Differential Equations	3	1	0	4
2.	GE6351	Environmental Science and Engineering	3	0	0	3
3.	CE6301	Engineering Geology	3	0	0	3
4.	CE6302	Mechanics of Solids	3	1	0	4
5.	CE6303	Mechanics of Fluids	3	0	0	.3
6.	CE6304	Surveying I	3	0	0	3
PRA	CTICAL					
7.	CE6311	Survey Practical I	0	0	4	2
8.	CE6312	Computer Aided Building Drawing	0	0	4	2
		TOTAL	18	2	8	24

SEMESTER VII

SL. No.	COURSE	COURSE TITLE	L	T	Р	С
THEO	RY					
1.	CE6701	Structural Dynamics and Earthquake Engineering	3	0	0	3
2.	CE6702	Prestressed Concrete Structures	3	0	0	3
3.	CE6703	Water Resources and Irrigation Engineering	3	0	0	3
4.	CE6704	Estimation and Quantity Surveying	3	0	0	3
5.		Elective II	3	0	0	3
6.		Elective III	3	0	0	3
PRAC	TICAL		3.5			
7.	CE6711	Computer Aided Design and Drafting Laboratory	0	0	4	2
8.	CE6712	Design Project	0	0	4	2
		TOTAL	18	0	8	22

SEMESTER VIII

SL. No.	COURSE	COURSE TITLE	=	L	T	Р	С
THEC	RY						
1.	MG6851	Principles of Management		3	0	0	3
2.		Elective IV		3	0	0	3
3.		Elective V		3	0	0	3
PRAC	TICAL						
4.	CE6811	Project Work		0	0	12	6
			TOTAL	9	0	12	15

TOTAL NO OF CREDITS: 187

LIST OF ELECTIVES

ELECTIVE I

SL. No.	COURSE	COURSE TITLE	L	Т	P	С
1.	CE6001	Hydrology *	3	0	0	3
2.	CE6002	Concrete Technology	3	. 0	0	3
3.	CE6003	Remote Sensing Techniques and GIS	3	0	0	3
4.	CE6004	Architecture	3	0	0	3
5.	GE6075	Professional Ethics in Engineering	3	0	0	3
6.	CE6005	Construction Planning and Scheduling	3	0	0	3

ELECTIVE II

SL. No.	COURSE	COURSE TITLE	L	Т	Р	С
7.	CE6006	Traffic Engineering and Management	3	0	0	3
8.	CE6007	Housing Planning and Management	3	0	0	3
9.	CE6008	Groundwater Engineering	3	0	0	3
10.	CE6009	Water Resources Systems Analysis	3	0	0	3
11.	CE6010	Pavement Engineering	3	0	0	3



CIVIL ENGINEERING

COURSE MAPPING CHART

COURSE NAME: HS6151 TECHNICAL ENGLISH I

COUP	RSE NAME: HS6151 TECHNICAL ENGLISH I							YEAR	& SE	MESTE	R: 18	41	
B.E CIVIL	CO Statement At the end of the course, the students will	PO1(k3)	PO2(k4)	PO3(K5)	PO4(k5)	PO5 (k3,5,6)	904	P07	P08	PO9	p10	P11	P12
	CO1: Communicate and share a broad range of information.[K3]	3	2	1	1	11.5		-	-	- 1	-	-	-
	CO2: Develop reading and speaking skills.[K3]	3	2	1	1	-	-	-	-	-		-	
Ξ	CO3: Develop English language competency. [K3]	3	2	1	1			-	-	-	-		
ENGLISI	CO4: Identify & rectify mistakes on reading and writing.[K3]	3	2	1	1		-	-	-	1	-	-	-
NICAL	CO5: Relate the usage of direct & indirect questions.[K2]	2	1	-	-	-	-			-	-	-	-
HS6151 - TECHNICAL ENGLISH I	CO6: Rephrase comprehensive passages & newspaper descriptions including dialogue and conversations.[K2]	2	1	-	-	-	-	-	-	-	-	1	
HS6151	CO7: Understand the functions of essays and development of the vocabularies.[K2]	2	1	-	-		-		-	-		-	
	CO8: Write personal letter, official letter, email and articles.[K2]	2	1		-	-	-	-	-	-		-	
	CO9: Participate in the conversation in order to acquire oral & listening skills.[K4]	3	3	2	2	-	-	-	-				
	Average	2.6	1.7	0.67	0.67					0.11	- 1	0.11	

NAME OF THE STAFF: S.AMMU

Head of Department,

Civil Engineering.

Mount Zion College of Engg. & Tech

Pudukkottai - 622 507.

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF CIVIL B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO1: Define limit of a fuction.	K1
		CO2: Apply the concept of derivative rules in maxima and minima.	K3
		CO3: Explain the concept of partial differential equation.	K2
		CO4: Explain the concept of maxima and minima of two functions.	K2
MA6151	MATHEMATICS-I	CO5: Apply the concept of integration by parts.	K3
		CO6: Apply the concept of partial fraction methods.	K3
		CO7: Solve the double integrals.	K3
	46.7	CO8: Apply the concept of trible integrals.	K3
		CO9: Solve the differential equation with constant coefficients.	K3
		CO10: Solve the Euler's and Legender's type.	K3

CO-PO MAPPING

CO-							Pos	S					
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6				9			
C3O1.1	K1	1	-	-	-	1	-	-	-	-	-	-	-
C3O1.2	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.3	K2	2	1	-	-		-	-	-	-	-	-	-
C3O1.4	K2	2	1	-	-	-	-	-	-	-	-	-	-
C3O1.5	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.6	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.7	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.8	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.9	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.10	K3	3	2	1	1	1	-	-	-	-	-	-	-

NAME OF THE STAFF: S.MANIMEKALAI

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome (CO) Students will be able to	Knowledge Level
		CO01: Interpret the fundamental knowledge of Physics and its applications in engineering and technology.	K2
		CO02: Apply the concept of depression/ elevation of the beam and get expertise through experimental evidence.	K3
	CSI	CO03: Analyze the properties of lasers for low and high energy application.	K3
PH6151	ENGINEERING PHYSICS I	CO04: Apply the total internal reflection properties of light in the optical fiber to find out the physical parameters like variation in temperature, pressure and displacement using FOC.	К3
HA	ERI	CO05: Identify the mode of heat transfer in heat Exchangers.	К3 •
	GINE	CO06: Make use of the thermal properties of thermal insulating material in a wide range of applications.	К3
	ENG	CO07: Summarize the drawback of Classical Physics and overcome these drawbacks by quantum theory concept.	K2
		CO08: Make use of quantum theory concept to study the working of Scanning Tunneling Microscope technique and its Benefits.	К3
		CO09: Infer the basics of crystals and its structures.	K2
		CO10: Outline the different crystals growth techniques, and its advantages and disadvantages.	K2

CO-PO MAPPING

COs		POs														
COS		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
		K3	K4	K5	K5	K3/K5/K6	K4	K2	K3	K3	K2	K3	K3			
CO1	K2	2	1				-	-	-	-	-		-			
CO2	K3	3	2	1	1	-		-			-					
CO3	K3	3	2	1	1	•				-	-	-	-			
CO4	K3	3	2	1	1	•						-				
CO5	K3	3	2	1	1	-			-	-	-	-	-			
CO6	K3	3	2	1	1	•	-		-	-	-					
CO7	K2	2	1								-					
CO8	K3	3	2	1	1	•										
CO9	K2	2	1		-				-		-	-				
CO10	K2	2	1	-	-	-	-	-	-	-			-			

NAME OF THE STAFF:MR.J.SRINIVAS

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO.1: Boiler troubles-scale and sludges	K2
CY6151 ENGINEERINGCHEMISTRY	CO.2: Desalination of brackish water	K3	
	ENGINEERINGCHEMISTRY	CO.3: Adsorption of solute from solutions	K2
	I	CO.4: Catalytic poison and catalytic promoters	K2
		CO.5:Significance of alloying	K1

CO-PO MAPPING

CO-		POs													
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
		K3	K4	K5	K5	K3/K5/K6									
CO.1	K2	2	1	-	-	2	-	-	-	-	-	-	-		
CO.2	K3	3	2	1	1	3	-	-	-	-	-	-	-		
CO.3	K2	2	1	-	-	2	-	-	-	-	-	-	-		
CO.4	K2	2	1	-	-	2	-	-	-	-	-	-	-		
CO.5	K1	1	-	-	-	1		-	-	-	-	-	-		

Staff name: A. ARASAKUMAR

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY

B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO1: Develop the flowchart symbols and pseudo code for various notations.	K3
		CO2: Develop an algorithm for towers of Hanoi in a given list of data.	K3
		CO3: Execute to exchange the values of the given variables using tuple assignment.	K3
	Commuter	CO4: Demonstrate a program into a recursion function using newton's methodology.	K2
GE6151	Computer Programming	CO5:Decompose a python program in to recursion function for a Fibonacci program	K2
		CO6: Apply the arithmetic operations to manipulate the mathematical representation for the given data using python function.	К3
		CO7: Differentiate the concept of List, Tuples and dictionaries to fetch the given data.	K4
		CO8: Illustrate a program using sorting techniques to perform I/O operations.	К3

CO-PO MAPPING

CO								POs					
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6	K3	K2	K3	K3	K2	K6	K6
CO1	K2	2	1	-	-	2	2	3	2	2	3		-
CO2	K2	2	1	-	-	-	2	3	2	2	3		-
CO3	K3	3	2	1	1	-	3	2	3	3	3	-	-
CO4	K2	2	1	-	-	- T	2	3	2	2	3	-	
CO5	K2	2	1	-	-	2	2	3	2	2	3		-
CO6	K3	3	2	1	1	-	3	2	3	3	3		-
CO7	K3	3	2	1	1	1	3	2	3	3	3		-
CO8	K3	3	2	1	1	1	3	2	3	3	3 ^	-	-

Name of the staff: A.Sangeetha

Signature of HOD

Head of the Department, Civil Engineering,

Mount Zion College of Enga 8 Took Pudukkottai - 622 50



COURSE MAPPING CHART

COURSE NAME: GE 6152 ENGINEERING GRAPHICS

YEAR & SEMESTER: 1 & 1

_	CO Statement	3)	4	2)	2)	(6)					1000		
B.E CIVIL	At the end of the course, the students will	PO1(k3)	PO2(k4)	PO3(K5)	PO4(K5)	PO5 (k3,5,6)	904	P07	P08	P09	P10	P11	P12
	CO1:Know freehand sketching of basic geometrical constructions(K1)	1	-	-	-	-	-	-	-	-	-	-	-
	CO2: Draw orthographic projections of lines and plane surfaces. (K3)	3	2	1	1	-		-	-	-	-	-	-
8	CO3: Develop 3D solid computer models (K3)	3	2	1	1	-					1		
Graphi	CO4: Develop the visualize and to project isometric and perspective sections of simple solids. (K3)	3	2	1	1	-	-	-	-	-	-	-	-
Engineering Graphics	CO5: Apply the knowledge of development of surfaces in manufacturing and Rapid Prototyping Methods (K3)	3	2	1	1	-					1		
2 Engi	CO6: Make use of the fundamentals and standards of Engineering graphics (K3)	3	2	1	1	3	-	-	-	-	-	-	-
GE 6152	CO7: Draw isometric and perspective views of the simple solids. (K3)	3	2	1	1	3							
	CO8: Apply Orthographic projections of real time parts in the Engineering Field. (K3)	3	2	1	1	3	-	-	-	-	1	-	-
	CO9: Project the sectioned solids and true shape of the section.(K4)	3	3	2	2	3							

NAME OF THE STAFF:MR.SANTHOSH KUMAR

VERIFIED BY HOD



COURSE MAPPING CHART

COURSE NAME: HS6251 - TECHNICAL ENGLISH II

YEAR & SEMESTER: I & II

	CO Statement													
CIVIL	At the end of the course, the students will able to	8	PO1(k3)	PO2	PO3	PO4	PO5	90d	PO7	PO8	P09	P10 (k3)	PII	P12 (K5)
B.E	Communicate and discuss a broad range of technical information with colleagues and clients related to the Engineering industry.(k3)	C209.1	2	-	-	-	-	-	-	-	-	2		1
	Demonstrate satisfactory presentation skill in technical presentation.(k3)	C209.2	2	-	-	-		-	-	-	-	2		1
II HSI	Explain and produce summaries that include correctly written introductory sentences and accurate paraphrases of the main ideas and key details, approximately one fourth in length of the original passages, without plagiarizing. (k2)	C209.3	1	-	-	-	-	-	-	-	-	1		-
ENGLISH	Identify the common types of support in arguments, their relevance or irrelevance, common argument flaws, opposing points of views, and refutations. (k1)	C209.4	-	-	-	-	-		-	-	-	-		-
TECHNICAL	Understand what writing an assignment involves.(k2)	C209.5	1	-	-	-	-	-	-	-	-	1		-
H	Identify strengths and weaknesses (k2)	C209.6	1	-	-	-	-	-	-	-	-	1		-
TEC	Understand the functions of essays and reports (k2)	C209.7	1	-	-	-	-	-	-	-	-	1		-
+	Demonstrate writing skills.(k2)	C209.8	1	-		77-	-	-	-	-	-	1		-
HS6251-	Execute the method of participation in the Group Discussion.(k5)	C209.9	2	-	-	-	-	-	-	-	-	2		2
	Judge how to acquire the oral skills and the body language used for effective Group Discussion. (k5)	C209.10	2	-	-	-	-	-	-	-	-	2		2
	Average	C209	1.3	-	-	-		-	-	-	-	1.3		0.6

NAME OF THE STAFF: S.AMMU

Mount Zion College of Engg. & Tech-

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO1: Define the Eigen values and Eigen vectors of the matrix.	K1
		CO2: Apply the concept of Cayley-Hamilton theorem in inverse and powers of the matrix.	K3
		CO3: Explain the concept of canonical form of the given quadratic form.	K2
		CO4: Explain the concept of solenoidal and irrotational vector.	K2
MA6251	MATHEMATICS-II	CO5: Apply the concept of Gauss divergence, Stoke's and Green's theorem.	К3
		CO6: Apply the concept of Cauchy –Riemann equations	K3
		CO7: Solve the bilinear transformation problems.	K3
		CO8: Apply the concept of Cauchy's integral theorem and integral formula.	К3
		CO9: Solve the Laurent expansions and contours problems.	K3
		CO10: Define Laplace transform, unit step function and impulse functions.	K1

CO-PO MAPPING

CO-							Pos	S					
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6							
C3O1.1	K1	1	-	-	-	1	-	-	-	-	-	-	-
C3O1.2	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.3	K2	2	1	-	-	-	-	-	-	-	7.	-	-
C3O1.4	K2	2	1	-	-	-	-	-	-	-	-	-	-
C3O1.5	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.6	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.7	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.8	K3	3	2	1	1	. 1	-	-	-	-	-	-	-
C3O1.9	K3	3	2	1	1	1	-	-	-	-	-	-	-
C3O1.10	K1	1	-	-	-	1	-	-	-	-	-	2	-

NAME OF THE STAFF: S.MANIMEKALAI

Head of the Department,
Civil Engineering.
Mount Zion College of Enger & Tech
Pudukkottal • 622 507.

VERIFIED BY HOD

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome (CO) Students will be able to	Knowledge Level
	п	CO01: Interpret the fundamental knowledge of Physics and its applications in engineering and technology.	K2
	PHYSICS	CO02: Apply the concept of fire to be caused in AC system	К3
	PHY	CO03: Analyze the properties of acoustics and its application.	K3
	ENGINEERING	CO04: Apply the impact of noise in multistoreyed building	К3
PH6251	EEI	CO05: Identify the mode of heat transfer in heat Exchangers.	К3
E	GIN	CO06: Make use of the artificial lighting	К3
	EN	CO07: Summarize the drawback of Classical Physics and overcome these drawbacks by quantum theory concept.	K2
		CO08: Make use of spectral quantities and its Benefits.	K3
		CO09: Infer the basics of fibre reinforced plastics	K2
		CO10: Outline the different alloys, and its advantages and disadvantages.	K2

CO-PO MAPPING

COs							PO	S					
COS		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6	K4	K2	K3	K3	K2	K3	K3
CO1	K2	2	1	-	-			-	-	-	-	-	-
CO2	K3	3	2	1	1	•	-	-	-	-			-
CO3	K3	3	2	1	1	•		-	-				-
CO4	K3	3	2	1	1	•	-						-
CO5	K3	3	2	1	1			-		-		-	-
CO6	K3	3	2	1	1						-	-	-
CO7	K2	2	1					-					
CO8	K3	3	2	1	1		-	-	-	-			-
CO9	K2	2	1		-	•		-			-		
CO10	K2	2	1		-				-		-	-0	

NAME OF THE STAFF:MR.J.SRINIVAS

VERIFIED BY HOD Head of the Department,

Civil Engineering,

**Count Zion College of Engg. & Tech
Pudukkottai - 622 507.

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF CIVIL B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	ENGINEERING CO.2: Analysis of coal CHEMISTRY II CO.3: Power alcohol and bid		Knowledge Level
		CO.1: Thermal analysis and cooling curves	K2
CVC251	ENGINEERING	CO.2: Analysis of coal	K1
CY6251	CHEMISTRY II	CO.3: Power alcohol and biodiesel	K2
		CO.4:Nuclear chain reactions	K3
		CO.5: Solar energy conversion	K2

CO-PO MAPPING

00-		POs													
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
		K3	K4	K5	K5	K3/K5/K6	7					The Carte			
CO.1	K2	2	1	-	-	2	-	-	-	-	-	-			
CO.2	K1	1	-	-	-	1	-	-	-	-	-	-	-		
CO.3	K2	2	1	-	-	2	-	-	-	-	-	-	-		
CO.4	K3	-	2	1	1	3	-	-	-	-	-	-	-		
CO.5	K2	2	1	-	-	3	-	-	-	-	-	-	-		

Staff name: A. ARASAKUMAR

Signature of HOD

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO1: Describe electrical circuit and overview of control systems.	K2
		CO2: Differentiate between various of theorems and their applications.	K4
		CO3: Demonstrate the different types of RL, RC, RLC produced by their execution.	K3
	Basic Electrical and Electronics	CO4: Describe the architecture and working of home wiring components and their applications.	K2
GE 6252	Engineering	CO5: Learn the DC machine components and their applications.	K2
		CO6: Design the Transformers	K3
		CO7: Relate the semiconductor and op-amp.	K3
		CO8: Demonstrate the basic structure of ADC and DAC	K3
		CO9: Design of concept in transducers	K3
		CO10: Design of CT and PT	K3

CO-PO MAPPING

COs							PO	s					
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6							
CO1	K2	2	2	1	1	-	-	-	-	-	-	-	-
CO2	K4	3	3	3	2	-	-	-	-	-	-	-	-
CO3	K3	3	3	2	1	1	-	-	-	-	-	-	-
CO4	K2	2	2	1	1	1	-	-	-	-	-	-	-
CO5	K2	2	2	1	1	1	-	-	-	-	-	-	-
CO6	K3	3	3	2	1	2	-	-	-	-	-	-	-
CO7	K3	3	3	2	1	2	-	-		-		-	-
CO8	K3	3	3	2	1	1	-			-		-	
CO9	K3	3	3	2	1	- '	-	-	-	-		-	
CO10	K3	3	3	2	1	-	-	-	-	-			-

NAME OF THE STAFF: MS.RADHIKA

VERIFIED BY HOD



COURSE MAPPING CHART

COURSE NAME: ENGINEERING MECHANICS

YEAR&SEMESTER: I & II

B'E CIAIT

CO Statement										0	I	7
At the end of the course, the students will	POI	PO2	ьоз	PO4	POS	90d	4O4	804	60d	POI	POI	POL
Calculate the various representations of scalar and vector(K2)	1	1	-	-	-			-	ı	-	-	
Determine the resultant of forces and/or moments.(K2)	2	-			2			-	,			•
Apply Newton's laws and conservation laws to elastic collisions and motion of rigid bodies(K3)	2	1	1	1	•	-	-	-	1.	-		•
Identify the moment of inertia of composite figures(K2)	2	1		-	2	-	-	-		-		
Determine the centroid and second moment of area of sections.(K2)	3	2	1	1	1	-	-	-	-	-	•	
Calculate the dynamic forces exerted in rigid bodies(K2)	2	1		•	•	-		-		-		•
Determine the translational motions in dynamics of particles(K2)	2	1			-	1					1	•
Apply laws of mechanics to determine efficiency of simple machines with consideration of friction.(K3)	3	3	2	2	3		-	•				,
Analyze the simple systems with sliding friction , wedge friction(K4)	2	1	•		-	-				,		,

CE 9723 - ENCINEERING WECHYNICS

VERIFIED BY HOD

Head of the Department, Civil Engineering, Mount Zion College of Engg. & Tech Pudukkottai - 622 507.

NAME OF THE STAFF: A. NAGESHWARI

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY B.E CIVIL - COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO1:Describe the Partial Differential Equations.	K1
		CO2: Identify the standard types of Partial Differential Equations.	K1
		CO3: Explain the differential equation using Fourier series in Engineering applications.	K2
		CO4:Use the Fourier series to evaluate the Fourier coefficients.	К3
MA6351	TRANSFORMS AND PARTIAL	CO5: Classify the two dimensional heat flow equation and one dimensional wave equations.	K2
	DIFFERENTIAL EQUATIONS	CO5:Find the equations of one dimensional and two dimensional equations.	K4
		CO6:.Explain the Mathematical principles on Fourier transforms	K2
		CO7: Use the Fourier transforms solve the problems.	К3
		CO8: Describe the Partial Differential Equations by using Z- transforms.	K1
		CO9: Find the Partial Differential Equations by using Z- transforms	K4

CO-PO MAPPING

COs							PO	s					
COS		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6	K4	K2	K3	K3	K2	K3	K3
C2O1.1	K1	1	-	-	-	1		-	-		-	-	-
C2O1.2	K1	1	-	-	-	1	-	-	-	-	-	-	-
C2O1.3	K2	2	1	-	-	-	-	-	-	-	-	-	-
C2O1.4	K3	3	2	1	1	1	-	-	-	3	-	-	-
C2O1.5	K2	2	1	-	-		-	-	-	-	-	-	-
C2O1.6	K4	3	3	2	2	-	-	-	-	-	-	-	-
C2O1.7	K2	2	1	-	-	-	-	-	-	-	-	-	-
C2O1.8	K3	3	2	1	1	1	-	-	-	3	-	-	-
C2O1.9	K1	1	-	-	-	1	-	-	-	-	-	0-	-

NAME OF THE STAFF

VERIFIED BY HOD

MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF CIVIL ENGINEERING REGULATION 2013 B.E CIVIL- COURSE OUTCOMES (CO)

Course Code	Course Name	Course Outcome(CO) Students will be able to	Knowledge Level
		CO.1: Ecological succession process	K2
		CO.2: Threats to biodiversity	K3
		CO.3: Solid waste management	K1
		CO.4: Role of individual in prevention of pollution	К3
GE6351	Environmental Science and	CO.5: Timber extraction and forest resources	K2
GE0331	Engineering	CO.6: Bioconversion of pollutants	K1
	Liigineering	CO.7: Urban problems related to energy	K3
		CO.8: Resettlement and rehabilitation of people	K1
		CO.9: Environment pollution act	K1
		CO.10: Population explosion	K3
		CO.11: Women and Child welfare	K1

CO-PO MAPPING

CO-	1		•				PO	s					
COs		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
		K3	K4	K5	K5	K3/K5/K6							
CO.1	K2	2	1	-	-	2	-	-	-	-	-	-	-
CO.2	K3	3	2	1	1	3	-	-	-	-	-	-	-
CO.3	K1	1	-	-	-	1	-	-	-	-	-	-	-
CO.4	K3	3	2	1	1	3	-	-	-	-	-	-	-
CO.5	K2	2	1	-	-	2	-	-	-	-	-	-	-
CO.6	K1	1	-	-	-	1	-	-	-	-	-	-	-
CO.7	K3	3	2	1	1	3	-	-	-	-	-	-	-
CO.8	K1	1	-	-	-	1	-	-	-	-	-	-	-
CO.9	K1	1	-	-	-	1	-	-	-	-	-	-	-
CO.10	K3	3	2	1	1	3	-	-	-	-	-	-	-
CO.11	K1	1	-	-	-	1	-	-	-	-	-		-

Staff name: A.ARASAKUMAR

Signature of HOD



COURSE MAPPING CHART

COURSE NAME: ENGINEERING GEOLOGY

YEAR & SEMESTER: II & 3

9	CO Statement		3	4	(5)	(5)	. (9							
BE.CIVIL ENGINEERING	At the end of the course, the students will	8	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	P07	P08	P09	P10	P11	P12
ENG!	Understand the importance of geological knowledge such as earth, earthquake, volcanism and the action of various geological agencies. (K2)	C206.1	2	1	-	-	2	-	<u>.</u>	-	-	-	-	-
	Perceive the knowledge on seismic activities due to plate tectonics (K2)	C206.2	2	1	-	-	2	1	-	-	-		-	-
CE6301 ENGINEERING GEOLOGY	Know the basic knowledge on properties of minerals. (K2)	C206.3	2	1	-	-	2	•	-	-	-	-	-	-
EOLO	Able to figure out the groups of minerals & its types. (K2)	C206.4	2	1	-	-	2	1	-	-	-	-	-	-
RING	Gain knowledge about types of rocks, their distribution and uses. (K2)	C206.5	2	1	-	-	2	-	-	-	-	-	-	-
GINEE	Learn the engineering properties of various types of rocks. (K2)	C206.6	2	1	-		2	•	-	-	-	-	-	-
301 EN	Understand the methods of study on geological structure. (K2)	C206.7	2	1	-	-	2		-	-	-	-	-	-
CEG	Recognize the application of geological investigation in projects such as dams, tunnels, bridges, roads, airport and harbour. (K2)	C206.8	2	1	-	-	2	-	-	-	-	-		-
	To follow the hydro geological investigations and coastal protection structures. (K2)	C206.9	2	1	-	-	2	-	-	-	-	-	-	-
	Total	C206	2	1	-	-	2	-	-	-	-	-	-	-

NAME OF THE STAFF: HARITHA

VERIFIED BY HOS rement,
Head of the Civil Engineering,
Mount Zion College of Engg. & Technology
Pudukkottai - 622 507.

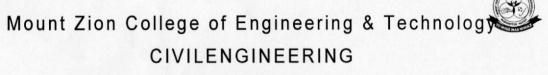
COURSE MAPPING CHART

COURSE NAME: CE6302-MECHANICS OF SOLIDS

YEAR & SEMESTER:II & III

L	CO Statement	00	(k3)	(k4)	(k5)	(k5)	5,5,6)					0	-	7
CIVIL	At the end of the course, the students will	0	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5	P06	PO7	PO8	PO9	PO10	POI	PO12
	Interpreting the fundamental concepts of Stress, Strain and deformation of solids. (K2)	C201.1	2	1	-	-	1		-	-	-	-	-	-
VICS OF	Find the Shear force and bending moment in beams and understand concept of theory of simple bending. (K3)	C201.2	3	2	1	1			-	-	-	-	-	-
MECHANICS SOLIDS	Find the deflection of beams by different methods and selection of method for determining slope or deflection.(K3)		3	2	1	1	-	-	-	-	-	-	-	-
	Use the basic equation of torsion in design of circular shafts and helical springs. (K3)	C201.4	3	2	1	-	-	-	-	-	-	-	-	-
CE6302	Analyze the pin jointed plane and space trusses. (K3)	C201.5	3	2	1	1	-	-	-	-	-	-	-	-
	Average		3	1.8	0.8	0.6	-	-	-	-	-	-	-	-

NAME OF THE STAFF: RAMAMURTHY.D.S



COURSE MAPPING CHART

COURSE NAME: CE6303 MECHANICS OF FLUIDS

YEAR & SEMESTER:II & III

	CO Statement		3)	(4)	(5)	(5)	6							
CIVIL	At the end of the course, the students will	СО	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	PO10	POII	PO12
	Interpreting the basic knowledge of fluids in static, kinematic and dynamic equilibrium.(K2)	C202.1	2	1	-	-	-	•	-	-	-	-	-	-
SOF	Understand and solve the problems related to equation of motion. (K2)	C202.2	2	1	-	-	-	-	-	-	-	-	-	-
CE6303 CHANICS FLUIDS	Apply the knowledge about dimensional and model analysis. (K3)	C202.3	3	2	1	-	-	-	-	-	-	-	-	-
MECH	Comparing the types of flow and losses of flow in pipes. (K2)	C202.4	2	1	-	-	-	-	-	-	-	-	-	-
Σ	Understand and solve the boundary layer problems. (K2)	C202.5	2	1	-	1-	-	-	-	-	-	-	-	-
	Average		2.2	1.2	0.2	-	-	-	-	-	-	-	-	-

NAME OF THE STAFF: A.SUBHASREE

Head of the Department,

VERIFIED BY HOD

Civil Engineering, Mount Zion College of Engg. & Tech, Pudukkottai - 622 507.



CIVILENGINEERING

COURSE MAPPING CHART

COURSE NAME: SURVEYING I

YEAR & SEMESTER: II - 3

	On successful completion of this course, students should able to	со	PO1 (k3)	PO2 (k4)	PO3 (K5)	PO4 (k5)	POS (k3,5,6)	PO6 (K3)	P07	P08	P09	P10	P11	P12
INGI	Examine the surveying instruments for different site conditions (K4)	C204.1	3	3	2	2	1	3	-	-	-	-	1	1
SURVEYING	Detect the sources of error in surveying and rectify the error (K4)	C204.2	3	3	2	2	1	3	-	-	-	6-6	-	-
CE6304- S	Sketch the contour map and geodetic map (K3)	C204.3	3	2	1	1	- 100	3	-	-	-	-	-	-
CE6	Operate the theodolite and measure the horizontal and vertical angles (K3)	C204.4	3	2	1	1	-	3	-	-	-	-	-	-
	Understand the concepts of astronomical and hydrographical surveying (K2)	C204.5	2	1	-	-	-	2	-	-	-	-	-	-
		C204	3	2	1	1	-	3	-	-	-	-	-	-
	Average		3	3	1	1	0.4	3		-	- 1	-	-	-

NAME OF THE STAFF: MOHAMED RAMEEZ RAJA SMY

VERIFIED BY HOD



COURSE MAPPING CHART

COURSE NAME: NUMERICAL METHODS

YEAR & SEMESTER: II & IV

1	CO Statement	3	4	3	9	6							
B.E CIVIL	At the end of the course, the students will able to	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	PO6	PO7	PO8	P09	P10	PII	P12
m	CO1: Define algebraic and Transcendental Equations. (K1)	1	1	-	-	-	-	-	-	-	-	-	-
	CO2: Solve the Gauss –Jacobi and Gauss-seidal method (K3)	3	2	1	1	-	-	-	-	-	-	-	-
ops	CO3: Compute Newton's forward and backward method (K3)	3	2	1	1	-	-	-	-	-	-	-	-
ЕТН	CO4: Use Interpolating with a cubic spline (K3)	3	2	1	1	-	-	-	-	-	-	-	-
AL M	CO5: Apply the formula for equal and unequal intervals (K4)	3	3	2	2	-		-	-	-	-	-	-
TERIC	CO6: Define the Laplace and Poisson Equations. (K1)	1	1	-	-	-	-1	-	-	-	-	-	-
-NUN-	CO7: Explain the possible solutions for two dimensional heat equaton (K2)	2	1	-	-	-	-	-	-	-	-	-	-
MA6459-NUMERICAL METHODS	CO8: Solve the problems based on Runge- kutta method and Milne's & Adam's method(K3)	3	2	1	1	-	-	- 1	-	-	-	-	-
	CO9: Solve the problems based on one dimensional wave equation & heat equation (K3)	3	2	1	1	-	-	-	-	-	-	-	-
	Average	2.7	2	1.1	1.1	-	- 1	-	-	- /	7	-	-

NAME OF THE STAFF: RAMESH V

VERIFIED BY HOD



COURSE MAPPING CHART

COURSE NAME:

CONSTRUCTION MATERIALS

YEAR & SEMESTER:

II & IV SEMESTER

9	CO Statement												
B.E CIVIL ENGG	At the end of the course, the students will	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	PO6	PO7	PO8	P09	P10	P11	P12
0	analyze the quality of freshened hardened concrete (k3)	3	2	1	1	-	-	-	-	-	-	-	
NON	analyze the proportion to make concrete blocks (k3)	3	2	1	1	-		-	-	-	-	-	-
6401 RUCTI	Understand the strength of modern materials .(k2)	2	1	0	0	-		-		-	-	-	-
CE 6401 CONSTRUCTION MATERIALS	execute the tensile strength of concrete blocks (k3)	3	2	1	1	-	-	-	-	-	-	-	-
5	understand the quality of aggregates and bricks (k2)	2	1	0	0	-	-	-	-	-	-	-	-
	AVERAGE	3	2	1	1	- 1	-	-	-	-	-	-	

NAME OF THE STAFF: Ms.C.SONIYA

VERIFIED BY HOD
Head of the Department,
Civil Engineering,
Mount Zion College of Engg. & Tech
Pudukkottal - 622 507



COURSE MAPPING CHART

COURSE NAME:STRENGTH OF MATERIALS

YEAR & SEMESTER: II & IV SEMESTER

	CO Statement													
CIVIL	At the end of the course, the students will	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	90d	PO7	PO8	PO9	P10	PII	P12
	Paraphrase knowledge regarding strain energies involved in a material. (k2)	C212.1	2	1		-	2		-	-	-	-	-	-
N.	Using energy theorems in solving problems. (k3)	C212.2	3	2	1	1	1	-	-	-	-	-	-	-
MATERIALS	Classify indeterminate beams by theorem of three moments. (k2)	C212.3	2	1	-	-	2	-	-	-	-	-	- 1	-
F MAT	Executing theorems in solving indeterminate beams with shear force and bending moment. (k3)	C212.4	3	2	1	1	1	-	-	-	-	-	-	-
тно	Exemplify stresses and changes in thick and thin cylinders. (k2)	C212.5	2	1	-	-	2		-	-			-	-
STRENGTH OF	Summarise columns based on their end conditions. (k2)	C212.6	2	1	-		2	-	-	-	-	-	-	-
1	Describe various stress and strain theories. (k2)	C212.7	2	1	-	-	2		-	-	-	-	-	-
CE6402	Using failure theorems in analyzing material. (k3)	C212.8	3	2	1	1	1	-	-	-	-	-	-	-
	Explain about unsymmetrical bending of symmetrical and unsymmetrical sections. (k2)	C212.9	2	1	-		2		•	-	-	-	-	-
	TOTAL	C212	2.3	1.3	0.3	0.3	1.67						-	-

VERHELD BY HOD Digineering,

Mount Zion College of Engg. & Tech Pudukkottai - 622 597



COURSE MAPPING CHART

COURSE NAME: APPLIED HYDRAULIC ENGINEERING

YEAR & SEMEST R: II & IV SEMESTER

	CO Statement								- Marie -					
7	At the end of the course, the students will	9	P01	PO2 (k4)	PO3 (k5)	PO4 (k5)	PO5 (k3,5,	90d	P07	PO8	P09	P10	P111	P12
CIIVL	know the properties of open channel and explain the interactions between the terms(k2)	C401.1	2	1	-	-	2	2	-	-	-	-	-	-
S _N	solve the open channel flow equations from the basic conservation equations.(k3)	C401.2	3	2	1	1	3	3	-	-	-	-	-	-
ERI	Understand flow profiles in channel transitions (k2)	C401.3	3	2	1	1	3	3	-	-	-	-	_	-
ENGINEERING	solve problems in uniform, gradually and rapidly varied flows in steady state conditions(k3)	C401.4	2	1	-	_	2	2	-	-	-	-		
	Explain the physical mechanisms of hydraulic jumps, surges, and critical, uniform, and gradually-varying flows.(k3)	C401.5	3	2	1	1	3	3	-	-	-	_	-	-
APPLIED HYDRAULIC	compute the flow of Ideal fluids in terms of mathematics and estimate quantities necessary in design applications(k3)	C401.6	3	2	1	1	3	3	-	-	-	-	-	_
APPL	To know about the various Pumps, its working and applications.(k2)	C401.7	2	1	-	-	2	2	-	-	-	-	-	-
CE6403	Design suitable types of pumps for various applications(k3)	C401.8	3	2	1	1	3	3	_	-	-	-	-	-
	Acquire skills in roto- dynamic machineries that will help in their day-to-day-life(k3)	C401.9	3	3	3	3	3	3	- 1	-	-	-	-	-
	TOTAL		24	16	8	8	24	24	-	-	-	-	-	-
			3	2	1	1	3	3	-	-	-		-	-

NAME OF THE STAFF: MADHURI.S.P

VERWIED BY HO



CIVILENGINEERING

COURSE MAPPING CHART

COURSE NAME: SURVEYING 11

YEAR & SEMESTER: II - 4

	On successful completion of this course, students should able to	со	PO1 (k3)	PO2 (k4)	PO3 (K5)	PO4 (k5)	PO5 (k3,5,6)	PO6 (K3)	PO7	P08	P09	P10	P11	P12
II 9NI	Explain the concepts of astronomical and hydrographical surveying (K2)	C204.1	2	1	-	-	-	2	-	-	-	1	-	-
SURVEYING	Determine time, longitude, latitude and azimuth in astronomical surveying (K2)	C204.2	2	1	-	-	-	2	- 1	- 1	-	1	-	-
	Sketch the levelling conditions of the site (K3)	C204.3	3	2	1	1	-	3	-	-	-	1	-	-
CE6404-	Understand the working principle of total station and GPS surveying (K2)	C204.4	2	1	-	-	-	2	-	-	-	1	-	-
	Operate the total station and GPS receiv rs (K3)	C204.5	3	2	1	1	-	3	-	-		1		-
		C204	2	1	0.4	0.4	-	2	-	-	-	1	-	-

NAME OF THE STAFF: MOHAMED RAMEEZ RAJA SMY

VERIFIED BY HOD

Head of the Department, Civil Engineering,

Mount Zion College of

Pudukkottai -



COURSE MAPPING CHART

COURSE NAME: CE6405-SOIL MECHANICS

YEAR & SEMESTER:II& IV

ESTEK:IIS	XIV													
	CO Statement		(3)	(4)	(5)	(5)	(9	(3)			3		(4)	(2)
	At the end of the course, tl e students will be able to		PO1(k3)	PO2(k4)	PO3(K5)	PO4(K5)	PO5 (k3,5,6)	PO6(K3)	P07	P08	PO9(K3)	P10	P11(K4)	P12(K5)
_	Summarize the basics of soi mechanics and soil properties(k2)	C215.1	2	1	0	0								
CIVIL	Classify the soil and assess the engineering properties, based on index properties(k2)	C215.2	2	1	0	0								
	Carry out field investigations and to indentify soils in geotechnical engineering practice(k3)	C215.3	3	2	1	1								
	Understand the stress concepts in soils(k2)	C215.4	2	1	0	0								
NICS	Carry out soil parameters such as permeability, compaction (k3)	C215.5	3	2	1	1								
SOIL MECHANICS	Understand the fundamental concepts of compaction, flow through soil, stress transformation, stress distribution, consolidation.(k2)	C215.6	2	1	0	0								
6405 \$	Understand and identify the settlement in soils (k2)	C215.7	2	1	0	0								
9	Carryout the shear strength of soil (k3)	C215.8	3	2	1	1								
8	Compare both finite and infinite slopes (k2)	C215.9	2	1	0	0								
	AVERAGE	C215	2.3	1.33	0.33	0.33								1

NAME OF THE STAFF: VIDYA KALAIVANI.R

Mount Zion College of Engg. & Tech Pudukkottai - 622 507.

VERTFIED BY HOO



COURSE MAPPING CHART

PROGRAM NAME: CIVIL ENGINEERING

YEAR & SEMESTER: III & V SEMESTER

,	CO Statement		3)	7	3	3	6			
ENGG	At the end of the course, the students will	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	PO6	PO7	a Da
9	Analyze the pin jointed plane frames using energy and consistent deformation method (K4)	C301.1	3	3	2	2	-	-	-	-
	Analyze indeterminate structures using various classical methods (K4)	C301.2	3	3	2	2	1		-	-
	Determine absolute maximum bending moment and shear force in beams due to moving loads (K3)	C301.3	3	2	1	1	-	-	-	-
	Find the maximum moment, shear and stresses produced in arches due to external loads, temperature effects and support settlements. (K3)	C301.4	3	2	1	1	1	-	-	-
	Analyze structures by using slope deflection method and moment distribution method. (K4)	C301.5	3	3	2	2	-	-	-	
	Classify the static and kinematic indeterminacies for plane frames. (K2)	C301.6	2	1	-		-	-	-	
	Draw the influence line diagram for structure with moving load. (K4)	C301.7	3	3	2	2	1		-	
	Differentiate between indeterminate pin-jointed frames and rigid frames. (K4).	C301.8	3	3	2	2	-	-	-	
	Classify the different types of arches. (K2)	C301.9	2	1	-	-	-	-	-	
	Calculate the critical stress resultants due to concentrated and distributed moving loads. (K3)	C301.10	3	2	1	1	-	-	-	
	Examine the effect of sway and non-sway in frame. (K4)	C301.11	3	3	2	2	1	-	-	
	TOTAL	C301	2.81	2.36	1.54	1.36	0.36	-	-	

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Mount Zion College of Engg. & Tec



CIVILENGINEERING

COURSE MAPPING CHART

COURSE NAME: FOUNDATION ENGINEERING

YEAR & SEMESTER: III & V SEMESTER

ON	CO Statement	-	3)	4	5)	3	6						1	
FOUNATION ENGG	At the end of the course, the students will	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	P10	P11	P12
FC	Define various types Exploration (k1)	C302.1	1	-	-	-	1	-	-	-	-	-	-	-
NG	Develope floating foundation (k3)	C302.2	3	2	1	1	-	•	-	-	-		-	-
VEERI	Determine Strength Parameters and Liquefaction Potentials (k5)	C302.3	3	3	3	3	-	-	-	-	-	1	-	-
ENGIN	Explain about Shallow and Deep Foundation (k2)	C302.4	2	1	-	-	2	-	-	-	-	1	-	-
IOI	Describe the methods of minimizing the Settlement (k2)	C302.5	2	1	-	-	1	-	-	-		-	-	
-FOUNATION ENGINEERING	Apply Terzhaghi's Formulae to find bearing capacity (k3)	C302.6	2	1	1	1	1	-	-	-	-	-	-	-
	Calculate the Settlement of Pile Group (k3)	C302.7	3	2	1	1		-	-	-	-	-	-	-
CE6502	Estimate active and passive Earth pressure on retaining wall (k5)	C302.8	3	3	3	3	-	-	-	-	-	1	-	-
O	Solve Earth pressure problems using Cullman's method (k3)	C302.9	3	2	1	-	-1	-	-	-			-	-
	TOTAL	C302	2.4	1.6	1.1	1	0.7	-	-	-	-	0.3	-	-

NAME OF THE STAFF: DHANABAL.P

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CIVIL ENGINEERING

COURSE MAPPING CHART

COURSE NAME: ENVIRONMENTAL ENGINEERING I

YEAR & SEMESTER: III - 5

On successful completion of this course, students should able to	со	PO1 (k3)	PO2 (k4)	PO3 (k5)	PO4 (k5)	PO5 (k3,5,6)	PO6 (K3)	PO7	PO8	P09	P10	P11	P12
Compute the population & water demand for forthcoming years (K3)	C303.1	3	2	. 1	1	-	-	-	-	-	-	-	-
Infer the water quality parameters (K4)	C303.2	3	3	2	2			-	-		-	-	-
Illustrate the various types of intake structures (K2)	C303.3	2	1	1	-	-	-	-	-	-	-	-	-
Discuss the types of pumps and pipe materials (K2)	C303.4	2	1	1	-	-	-	-	-	-	-	-	-
Explain the water treatment unit operations and unit processes (K2)	C303.5	2	1	1	-	-	-	-	-	-	-	-	-
Apply the design procedure for slow and rapid sand filters in water treatment units (K3)	C303.6	3	2	1	1	-	-	-	-	-	-	-	-
Select the type of treatment required based on the quality of water(K2)	C303.7	2	1	1	1.00	-	-		-	-	-	-	-
Analyze the distribution network in water supply system(K4)	C303.8	3	3	2	2	-	-	-	-	-	-	-	-
Plan a water distribution to a particular city (K3)	C303.9	3	2	3	1	-	-	-	-	-	-	-	-
(4.1mg+)	C303	2.89	1.78	1.44	0.78	-	-	-	-	-	-	-	

NAME OF THE STAFF RADHA

HEVERIFIED BY HOD

Civil Engineering, Mount Zion-College of Engg & Tech -Pudukkottai - 622 507.

CIVILENGINEERING



COURSE MAPPING CHART

COURSE NAME: HIGHWAY ENGINEERING

YEAR & SEMESTER: III & V SEMESTER

AY.	CO Statement		1	T	T	T			Г		Ι	Γ	Ι	1
HIGHWAY ENGG	At the end of the course, the students will	9	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	P08	P09	P10	P11	D17
Д	Acquire knowledge about the history of highway, planning and classifications of highways. (k1)	C304.1	1	-	-	-	-		-	-	-	A	A .	A
ING	Classify highway based on its locations, functions and uses. (k2)	C304.2	2	1	-	-	-		-	-		1		
VEER	Apply geometric design during the construction of a new highway road. (k3)	C304.3	3	2	1	1	-			-	1			-
NGI	Review curves and sight distances in highway as per IRC recommendation. (k3)	C304.4	3	2	1	1	_	_	-			1		-
HIGHWAY ENGINEERING	Construct a highway based on design practices of flexible and rigid pavements. (k3)	C304.5	3	2	1	1	-	-	_	-	1	1		
IGHW	Explain pavement components and their rule. (k2)	C304.6	2	1	-	-	-	-	-	-		-		H
1	Demonstrate various construction practices including modern materials and methods. (k2)	C304.7	2	1	-	-	-			-		_		
CE6504	Explain highway drainage and its maintenance. (k2)	C304.8	2	1	-	-	-	-	-		-	1		-
	Apply strengthening methods in pavement construction. (k3)	C304.9	3	2	1	1	-	-		-	1	-		-
	AVERAGE	C304	2.3	1.3	0.4	0.4	-			uleen .	0.3	0.4		

S. Syl

NAME OF THE STAFF: SUJIN JOSE.S

HVERIFIED BY HODEL

Mount Zion College of Engg. & Tech Pudukkottai - 622 507.

CIVILENGINEERING

COURSE MAPPING CHART

COURSE NAME: DESIGN OF REINFORCED CONCRETE ELEMENTS

YEAR & SEMESTER:III & 5

	CO Statement		3	4	9	6			1					
DRC	At the end of the course, the students will	8	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5	P06	PO7	P08	P09	P10	PIÌ	P12
	Explain the different types of design philosophies (k2)	C306.1	2	1	-	-	-		-	-	-	-	-	-
	Analyze and design the various basic elements such as beams, slabs using working stress method(k4)	C306.2	2	3	2	2	-	-	-	-	1	1.	-	-
Q	Apply the design different types of slab by limit state method(k3)	C306.3	3	2	1	1	-	-	-	-	-	-	-	-
REINFORCED NTS	Classify the various types of beam by limit state method(k2)	C306.4	2	1	-	-	-	-	-	-	-		-	-
REINF	Analyze the behavior of the RC beams in shear and torsion(k4)	C306.5	2	3	2	2	-	-	-	-	1	1	-	-
OF	Apply the Design of different types of columns under different bending(k3)	C306.6	3	2	1	1	-	-	-	-	-	-	•	-
O	Apply the design of short rectangular and circular columns under different bending(k3)	C306.7	3	2	1	1	-	-		-	-	-	-	-
9	Explain the different types of loadings on footings, column, beam, slab(k2)	C306.8	2	1	-	-	-	-	-	-	-	-	-	-
CE6505- CONCR	Apply the design of wall footing by adopting limit state method(k3)	C306.9	3	2	1	1	-	-	-	-	-	-	-	-
	Average	C306	2.4	1.8	0.8	0.8	-	-	2	-	0.2	0.2	-	2

NAME OF THE STAFF: G.M.MAHALAKSHMI

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VERIFIED BY HOD



COURSE MAPPING CHART

COURSE NAME: CE 6506 CONSTRUCTION TECHNIQUES EQUIPMENT AND PRACTICES

YEAR & SEMESTER: III YEAR & 6th SEMESTER

STUDENTS WILL BE ABLE TO	со	PO1 (k3)	PO2 (k4)	PO3 (k5)	PO4 (k5)	PO5 (k3,5,6)	P06	P07	P08	P09	P10	P11	P12
Demonstrate test on concrete	C306.1(K2)	2	1	-	-	1	-	-	-	-	-	-	-
Prepare mix design for concrete	C306.2(K3)	3	2	1	1	1	-	-	-	-		-	-
Understand different construction practices	C306.3(K2)	2	1	-	-	-	-	-	-	-	-	-	-
Interpret various techniques used for substructure	C306.4(K2)	2	1	-	-	-	-	-	-	-	1	-	1
Plan the requirements for superstructure	C306.5(K5)	3	3	3	3	-	-	-	-	-	1	-	-
Explain the super structure components	C306.6(K2)	2	1	-	-	-	-	-	-	-	-	-	-
Identify the techniques used for superstructure	C306.7(K3)	3	2	1	1	-	-	-	-	-	-	-	-
Recognize the equipment	C306.8(K2)	2	1	4-	-	-	-	-	-	-	1	-	-
Utilize the equipment	C306.9(K3)	3	2	2	2	-	-	-	-	-	-	-	-
TOTAL	A 100,000	2.4	1.5	0.8	0.8	0.2	-	-	-	-	0.3		-

NAME OF THE STAFF: ADLIN HANNAH S

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Civil Engineering,
Mount Zion College of Engg. & Tech
Pudukkottai - 622 507.



COURSE MAPPING CHART

COURSE NAME: DESIGN OF REINFORCED CONCRETE & BRICK MASONRY STRUCTURES

YEAR & SEMESTIR:III & 6

	CO Statement		3)	45	9	0	(9,							
	At the end of the course, the students will able to	8	PO1(k3)	PO2(k4)	PO3(k5)	rO4(K)	PO5 (k3,5,	POA	P07	PO8	DOO.	P10	P11	P12
	Explain the different ypes of the retaining wall.(k2)	C301.1	2	1	-	-	-\	-	-	-	-	-	-	-
	Analyze and design the various basic elements of cantilever and counterfort retaining wall.(k3)	C301.2	3	2	1	I	-	-	-	-	1	1		-
*	Design and analyze the circular slab using working stress method. (k2)	C301.3	2	3	2	2	-	-	-	-	-	-	-	-
BRICK MASONRY	Design and sketch the different types of water tank by working stress me hod.(k3)	C301.4	3	2	-	-	-	-	-	-	-	-	- 18	-
MA	Design and sketch the detailing of mat foundation, box culvert and bridges.(k3)	C301.5	3	2	1	1	-	-	-		1	1	-	-
SRIC	Analyze the behavior of the ordinary and doglegged staircases. (k4)	C301.6	2	3	2	2	-	-	-	-	-	-	-	-
	Design the different types of slabs such as square, circu ar based on yield line theory. (k3)	C301.7	3	2	1	1	-	-	-	-	-	-	-	-
STRUCTURES	Determine the collapse load and plast c moment by applying virtual work method.(k2)	C301.8	2	1	-	-	-	-	-	-	-	-	-	-
STR	Design and sketch the detailing of masonry walls by adop ing limit state n ethod.(k3)	C301.9	3	2	1	1	To A	-	-	-	-	-	•	-
	Ayerage	C301	2.6	2	0.9	0.9	-	-	-	-	0,2	0.2	-	-

NAME OF THE STAFF: G.M.MAHALAKSHMI

riead of the Department,

Civil Engineering, Mount Zion College of Engg. & Teah Pudukkottai - 622 5uZ



COURSE MAPPING CHART

COURSE NAME:CE6602 STRUCTURAL ANALYSIS-II

YEAR & SEMESTER: III & VI SEMESTER

	CO Statement		0	0	9	6								
	At the end of the course, the students should able to	00	PO1(k4)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k4,5,6)	PO6	PO7	PO8	P09	P10	P11	P12
	Organise the pin jointed plane frames using flexibility method (K4)	C311.1	2	3	-	-	-	-	-	-	-		-	-
П	Analyze indeterminate structures using various stiffness methods(K4)	C311.2	2	3	-	-	1	-	-	-	-	-	-	-
STRUCTURAL ANALYSIS II	Interpret maximum bending moment in beams & frames using deflection method(K2)	C311.3	3	1	-	-	-	-	-	1	-	-	-	-
ANA	Find the displacement using stiffness method.(K4)	C311.4	3	-	1	-	1	-	-	-	-	-	-	-
URAL	Integrate structures by finite element method. (K4)	C311.5	1	2	2	-	-	-	-	-	-	-	-	-
RUCT	Classify the plastic hinges in beam and frames. (K2)	C311.6	2	-	-	-	-	-	-	-	-	-	-	-
1	Infer the effect of support settlements for indeterminate structure (K2)	C311.7	1	-	2	1	1	-	-	-	-	-	-	-
CE6602	Paraphrase Plastic analysis of indeterminate beams and frames. (K2)	C311.8	2	3	-		-	-	-	-	-	-	-	
	Compare the different types of suspension bridges. (K2)	C311.9	2	-	-	-	-	-	-	-	-	-	-	-
	Analyze the space truss using tension coefficient. (K4)	C311.10	3	1	-	-	-	-	-		-	-	-	-
	Find the maximum moment, shear and stresses produced in suspension bridge due to external loads, temperature effects and support settlements.(K4)	C311.11	3	-	1	-	1	-	-	-	-	-	-	-
	TOTAL	C311	24	13	5	1	3	-	-	-	-	0	-	- 1

VERIFIED BY HOD Civil Engineering, Mount Zion College of Engg. & To

Mount Zion College of Engineering & Technology CIVIL ENGINEERING **COURSE MAPPING CHART**

YEAR & SEMESTER

: III & VI

B.E CIVIL	CO Statement At the end of the course, the students will be able to	8	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	PO6	PO7	PO8	P09	PO10	PO11	PO12
leel	Learn the basic elements of a steel structure . (k2)	C403.1	2	1	-	-	-	-	-	-	-	-	-	-
of Steel	Learn the fundamentals of structural steel fasteners . (k2)	C403.2	2	1	-		-	-	-	-	-	-	-	-
3 Design of Structures	Design basic elements of steel structure like tension members, compression members, beams and beam-columns . (k3)	C403.4	3	3	2	2	-	-	-	-	1	-	-	-
CE6603	Design column splices and bases . (k3)	C403.6	3	2	1	1	-	-	-	-	-	-	-	-
CE6	Plan and design different steel connections. (k3)	C403.8	3	2	1	1	-	-	-	-	-	-	-	-
	Average	CE403	2.6	1.8	0.8	0.8	-	-	-	-	0.2	-		-

NAME OF THE STAFF: MR. A.SIVAYOGARAJ



COURSE MAPPING CHART

PROGRAM NAME: CIVIL ENGINEERING

YEAR & SEMESTER: III & VI SEMESTER

J	CO Statement		•		6	6								
BE CIIVL ENGG	At the end of the course, the students will be able to	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	PO10	P011	PO12
	Analyze different types of railway crossings and connections -k4	C304.1	3	3	2	1	1	-	-	-	-	-	-	-
and	Perform an application of design methodologies in railway design -k3	C304.2	3	2	1	1	1	-	-	-	-	-	-	-
Airport	Infer with proposing a proper gradation in railway crossing system-k4	C304.3	3	3	2	2	1	-	-	-	-	-	-	-
Air	Understand the different forms of airport layout -k2	C304.4	2	1	-	-	-	-	-	-	-	-	-	-
Railway or Engi	Evaluate different air traffic studies for airport design -k4	C304.5	3	3	2	2	1	-	-	-	-	-	-	-
04 – Railway Airpor Harbor Engineering	Interpret the optimum solutions in airport lighting -k2	C304.6	2	1	-	-	-	-	-	-	1	-	-	-
-904 Har	Develop solutions for typical harbor problems -k4	C304.7	3	3	1	1	1	-	-	-	-	_	-	-
CE6604	Differentiate the concept of jettys and dolphins -k2	C304.8	2	1	_	-	-	_	_	-	_	_	-	_
	Justify the method to design harbor and port -k4	C304.9	3	3	2	2	1	-	_	-	1	-	-	-
	AVERAGE	C304	3	2	1	1	1	_	_	_	-	-	-	-

NAME OF THE STAFF: SIVAYOGARAJ A.

N. S. F. ..

VERIFIED BY HOD



COURSE MAPPING CHART

PROGRAM NAME: CIVIL ENGINEERING

YEAR & SEMESTER: III & VI SEMESTER

	CO Statement													
BE CHVL ENGG	At the end of the course, the students will be able to	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	P08	P09	PO10	P011	P012
	Understand various source of sewage generation-k2	C305.1	2	1	-		2	-	-	-	-	-	-	-
= 8	Understand about Biochemical oxygen demand-K2	C305.2	2	1	-	-	2							
eerir	Understand characteristics and composition of sewage-k2	C305.2	2	1	-	-	2	-	-	-	-	-	-	-
ngin	Have the ability to design sewer systems-k3	C305.3	3	2	1	1	3	-	-	-	-	_	-	-
ıtal e	Have the ability to calculate storm water runoff-k3	C305.4	2	2	1	1	3	-	-	-	-	-	-	-
Environmental engineering II	Perform basic design of unit operation and process that are used in sewage treatment-k3	C305.5	3	2	1	1	3	-	-	-	-	-	-	-
Envir	Understand the importance of wastewater treatment-k2	C305.6	2	1	1	1	2	-	-	-	-	-	-	-
1	Know various biological sewage treatment process-k2	C305.7	2	1	-	-	2	-	-	-	-	-	-	-
CE-6605	Know the advances sewage treatment process-k2	C305.8	2	1	-	-	2	-	-	_	-	-	-	-
0	Know various sewage disposal methods and sludge management-k2	C305.9	2	1	-	-	2	-	-	-	-	-	-	-
	AVERAGE	C305	2.2	1.3	0.4	0.4	2.3	-	_	-	-	-	_	_

NAME OF THE STAFF: A.BALAMURUGAN.

W. Dur Jon



CIVILENGINEERING

COURSE MAPPING CHART

COURSE NAME: CONSTRUCTION PLANNING AND SCHEDULING

YEAR & SEMESTER: III - 6

9	On successful completion of this course, students should able to	со	PO1 (k3)	PO2 (k4)	PO3 (k5)	PO4 (k5)	PO5 (k3,5,6)	PO6 (K3)	P07	PO8	P09	P10	P11	P12
SCHEDULING	Understand the planning the construction projects (K2)	C306.1	2	1		·		2	-	-	-	-	-	-
р SCH	Judge the project resources and duration (K3)	C306.2	3	2	1	1	-	3	-	-	-	-	-	-
ING AND	Schedule the construction activities using CPM and PERT (K3)	C306.3	3	2	1	1	-	3	-		-	-	-	-
ANN	Determine the cost of the project (K2)	C306.4	2	1	-	-	-	2	-	-	-	-	-	-
CONSTRUCTION PLANNING	Understand the concepts of controlling the cost of the project by creating cash flows (K2)	C306.5	2	1		-		2	-	-	-	-	-	-
TRUC	Determine the budgeting techniques (K2)	C306.6	2	1	-	-	-	2	-	-	-		-	-
	Apply the statistical quality control (K3)	C306.7	3	2	1	1	-	3	-	-	-	-	-	-
CE6005-	Understand the various safety conditions (K2)	C306.8	2	1	-	-		2	-		-	- 1	-	-
5	Use the project information as a decision making tool (K3)	C306.9	3	2	1	1	-	3	-	-	-	-	-	-
	Average	C306	2	1	1	1	-	2	-		-	-	-	-

NAME OF THE STAFF: MOHAMED RAMEEZ RAJA SMY

VERIFIED BY HOE

Civil Engineering,

Mount Zion College of Control

Pudukkottal - 622 bin

COURSE MAPPING CHART

COURSE NAME: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING

YEAR & SEMESTER: IV& VII SEMESTER

	CO Statement		8	6	9	6	-							
BE CIIVL ENGG	At the end of the course, the students will be able to	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	PO6	PO7	P08	P09	P10	PII	P12
L BE	Compare static loading and dynamic loading in a structure(k2)	C401.1	2	1	-	-	-	-	-	-	-	-,	-	-
AND AKE	Compute eigen values and eigen vectors of MDOF system (k3)	C401.3	3	2	1	1	-	-	-	-	-	-	-	-
- · · · ·	Determine the earthquake forces as per IS code (k3)	C401.6	3	2	1	1	-	-	-	-	-	-	-	-
CE6701-STRCTURA DYNAMICS AND EARTHQUAKE ENGINEERING	Explain the behaviour of different structures under earthquake loading (k2)	C401.7	2	1	-	-	-		-	-	-	-	-	-
CE6 D)	Apply the codal provisions for seismic resistant structures(k3)	C401.8	3	2	1	1	-	-	-	-	-	-	-	-
	TOTAL		13	8	3	3		-	-	-	-	-	-	-
	Average		2.6	1.6	0.5	0.5			-	-	-	-	-	-

NAME OF THE STAFF: REGINA MARY.I



COURSE MAPPING CHART

COURSE NAME: PRESTRESSED CONCRETE (CE6702)

YEAR & SEMESTER: IV & VII

STRUCTURES	At the end of the course, the students will	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	P10	P11	P12
	Illustrate the behaviour of prestressed concrete beams and slab(K2)	C402.1	2	1	-	-	-	-	-	-	-	-	-	-
PRESTRESSED CONCRETE	Execute the tendon layout design, which satisfy the strength and serviceability limit states as required by design standards(k3)	C402.2	3	2	1	-	-	-	-	-	-	-	-	-
SSED C	Use of anchorage zone stress and end block for prestressed concrete structures(k3)	C402.3	3	2	1	-	-	-	-	-	-	-	-	-
STRE	Find the design of prestressed composite beam (k4)	C402.4	1	3	2	-	-	-	-	-	-	-	-	-
CE6702 PRI	Apply the recent techniques in prestressed concrete technology (k3)	C402.5	3	2	1	1	1	-	-	-	-	-	-	-
CE6		TOTAL	2.4	2	1	-	1.2	-	-	-	-	-6	3	

NAME OF THE STAFF:

P.RUBA

VERIFIED BY HOD

Mount Zion College of Engineering & Technology CIVIL ENGINEERING COURSE MAPPING CHART

YEAR & SEMESTER

: IV & VII

B.E CIVIL	CO Statement At the end of the course, the students will be able to	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	PO10	PO11	PO12
ses	Have knowledge and skills on planning, design and management of irrigation system. (k3)	C403.1	3	2	1	1	-	-	-	-	-	-	-	-
r Resources Engineering	Gain knowledge on different methods of irrigation. (k2)	C403.2	2	1	-	-	- 1	-	-	-	-	-	-	-
	Choose and use research methodologies for water resources management. (k4)	C403.4	3	3	2	2	-	-	-	-	1	-	-	-
CE6703 Water and Irrigation E	Be aware of future challenges for facing water resources management. (k2)	C403.6	2	1	-	-	-	-	-	-	-	-	-	-
CEC	Plan and design different water regulatory units for irrigation projects. (k3)	C403.8	3	2	1	1	•	-	-	-	-	-	-	-
	Average	CE403	2.6	1.8	0.8	0.8	-	-		-	0.2	-	-	-

NAME OF THE STAFF: A.DHINESH KUMAR

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COURSE MAPPING CHART

COURSE NAME: CE6704 ESTIMATION AND QUANTITY SURVEYING

MEAR & SEMESTER:IV& VII

日	CO Statement		3)	4	3	5								
B.E CIVIL	At the end of the course, the students will		PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	POS	90d	PO7	PO8	P09	P10	P111	P12
	Apply basic concepts of estimation in evaluating construction cost (k3)	C404.1	3	2	1	1	-	-	-	-	-	-	-	-
N AN	Use the standard rules for taking measurements and recording dimensions (k3)	C404.2	3	2	1	1		-	-	-	-	-	-	-
ATIO	Apply logical thoughts and prepare the rate analysis and bills(k3)	C404.3	3	2	1	1	-	-	-	-	-	-	-	-
CE6704 ESTIMATION AND QUANTITY SURVEYING	Find the depreciation value for machineries and buildings using principles of valuation (k4)	C404.4	3	3	2	2	-	-	-	-	-	-	-	-
CE6704 ESTI QUANTITY	Explain the principles for report preparation (k2)	C404.5	2	1	0	0	-		-	-	-	-	-	-
	Average		2.8	2	1	1	-	-	-	-	-	-	-	-

NAME OF THE STAFF: R.Vidyakalaivani

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Civil Engineering,

Mount Zion College of Engg. & Tech.
Pudukkottai - 622 507.

Mount Zion College of Engineering & Technology CIVILENGINEERING COURSE MAPPING CHART



PROGRAM NAME: CIVIL ENGINEERING

YEAR & SEMESTER: IV& VII SEMESTER

	CO Statement		3)	4	3	3	(6							
BE CIIVL ENGG	At the end of the course, the students will be able to	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	90d	PO7	PO8	P09	PO10	PO11	PO12
BE	Have knowledge and skills on planning, design and management of housing(k3)	C407.1	3	2	1	1	1	-	-	-	-	-	-	-
	Gain knowledge on different methods of housing policy. (k2)	C407.2	2	1	-	-	-	_	_	-	-	-	-	-
PLANNING AND	Understand the major debates and issues in urban policy and politics nationally and regionally (k2)	C407.3	2	1	-	-	-	-	-	-	-	-		-
T	Analyzedesign, laying, zoning and formulation the housing $projects(k4)$	C407.4	3	3	2	2	1	-	-	-	-	-	-	-
	Synthesis data and technical concepts for application in various fields within planning, such as housing, community development, transportation, environmental planning, urban sprawl and growth management. (k4)	C407.5	3	3	2	2	1	-	-	_	-	-	-	-
HOUSING	Be aware of some of the major debates and issues in housing of all (k2)	C407.6	2	1	-	-	-	-	-	-	-	-	-	-
CE6007-1	Explore important substantive areas and concepts in the field of urban and regional planning and current urban planning and policy issues and debates. (k3)	C407.7	3	2	1	1	1	-	-	-	-	-	-	-
D	Plan and design of housing unit and housing projects. (k3)	C407.8	3	2	1	1	1	-	-	-	-	-	-	-
	Do case study on housing planning management. (k4)	C407.9	3	3	2	2	1	-	-	-	-	-	-	-
	AVERAGE	C402	3	2	1	1	1	-	-		-	-	-	-

NAME OF THE STAFF: SOFIA.G

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Civil Engineering.

Mount Zion College of Engg. & TeelPudukkottai - 622 597:

Mount Zion College of Engineering & Technology CIVIL ENGINEERING **COURSE MAPPING CHART**



COURSE NAME

: AIR POLLUTION MANAGEMENT

YEAR & SEMESTER

: IV & VII

	CO Statement		3)	4	5)	9	6							
	At the end of the course, the students will able to	93	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	90d	PO7	PO8	P09	P10	P111	P12
TION	Understand the sources of air pollutants and basic principles of air sampling (k2)	C406.1	2	1	-	-	-		-	-	-	-	-	-
POLLUTION	Understand the different meteorological factors and Solve the problems in atmospheric dispersion of pollutants. (k3)	C406.2	3	2	1	1	1	-	-	-	-	-		-
- AIR ANAG	Understand the Selection criteria of equipments for particular type of air pollutants. (k2)	C406.3	2	1	-	-	-	-	-	-	-	-	-	-
CE6011 M	Understand the principle behind each equipment and control methods for specific industries. (k2)	C406.4	2	1	-	-	-	-	-	-	-	-	-	-
C	Identify the noise pollution problems through different control strategies. (k2)	C406.5	2	1	-	-	-	-	-	<u>.</u>	_	<u>-</u>	-	-
	TOTAL	C406	2	_1	1	1	1	-	-	-	-	-	-	

NAME OF THE STAFF: Mohamed Rameez Raja S



COURSE MAPPING CHART

COURSE NAME: PRINCIPLES OF MANAGEMENT (MG6851)

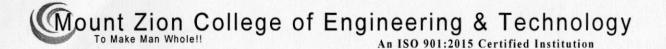
YEAR & SEMESTER: IV & VIII

	CO Statement		•	-	6	6					1 1 1 1 1			
	At the end of the course, the students will	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	P10	P111	010
	Understand the nature and approaches in the management. (k2)	C409.1	2	1	-	-	-	-		-	-	-	1	
	Understand the different organizations held together through proper management. (k2)	C409.2	2	1	-	-		-	-	-	-	-	1	
	Understand the nature, types and purpose of planning. (k2)	C409.3	2	1	-	-	-	-	-	-	-	-	-	
	Apply the knowledge in strategic management and decision making. (k3)	C409.4	3	2		-	-	-	2	2	1	-	1	
-	Understand the nature, types and purpose of organization. (k2)	C409.5	2	1	-	-	-	-	-	-	-	-	1	
	Understand the human resource management and processes in it. (K2)	C409.6	2	1	-	-	-	-	-	-		-	1	
	Understand the motivation and leadership in management. (k2)	C409.7	2	-	-	-		-	-	-	1	-	1	
	Understand the role of communication in management. (k2)	C409.8	2	-	-	-		-	-	2	-	-	1	
	Apply the management tools to control the system and process. (k3)	C409.9	3	2	1	1	1	-	1	2	-	-	-	
	TOTAL	C409	2	1	-	-	1	-	-	1		0	1	

NAME OF THE STAFF:

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COURSE MAPPING CHART

COURSE NAME: CE6016 Prefabricated structures

YEAR & SEMESTER: 4th & 8

CIVIL	CO Statement	00	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k5)	PO5 (k3,5,6)	P06	PO7	PO8	P09	P10	P11	P12
5	At the end of the course, the students will		Ь	Ь	Ь	Ь	0							
ý,	Able to explain the student will have good knowledge about design principles. (k2)	C410.1	2	1		-	-	-		-	-	- 1		-
cture	Able to generalizing the layout of factory and stages of loading in precast construction. (k2)	C410.2	2	1	-	-	-	-)	-	-	-	-	-	-
stru	Able to comparing the knowledge about large panel systems like slabs, walls roofs and floors.(k2)	C410.3	2	1	-	-	-	-	-	-	-	-	-	-
ricated	Able to classifying the connections used in precast construction and they will be in a position to design the elements.(k2)	C410.4	2	1	-	-	-	•	-	-	-		-	-
ap	Represent the concepts of prefabricated structures.(k2)	C410.5	2	1	-	-	-	-	-	-	-	-	-	-
CE6016 Prefabricated structures	Have Knowledge to use the modular construction, industrialized construction and design of prefabricated elements and construction methods.(K3)	C410.6	3	2	1	1	1		-	_	-	-		-
90	Classify abnormal loads in Prefabricated Structures (K2)	C410.7	2	1	-	-	-	-	-	-	-	-	-	
CE	Explain the types of walls used in precast construction, sealants, design of joints.(K2)	C410.8	2	1	-	-	-	-	-	-	-	-	-	
	Average	C410	2.115	1.125	2	1	1	-	-	-	-	-	-	

NAME OF THE STAFF: Mr.S.Balamurugan

Pilivalam P.O, Pudukkottai Dt., Tamil Nadu. Pin - 622 507, Fax: 04333 – 277125, Ph: 04322 - 320801, 320802, Website: www.mzcet.in, Email: info@mzcet.in

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Civil Engineering,
Mount Zion College of Engg. & Teef.
Pudukkottai - 622 507.



COURSE MAPPING CHART

COURSE NAME: REPAIR AND REHABILITATION OF STRUCTURES

YEAR & SEMESTER: IV & VIII SEMESTER

	CO Statement		3	4	9	16	1	T	T		T-	T		
	At the end of the course, the students will be able to	3	PO1(k3)	PO2(k4)	PO3(k5)	PO4(k.5)	PO5 (k3.5.6)	P06	PO7	PO8	P09	P10	PII	1
	Define various types of maintenance.(k1)	C411.1	3	1-	-	1.	1	+-	+-	1.	+			-
	State the assessment procedure of damaged building (k1)	C411.2	1	+-		+	1	-			-	1	-	
	Explain about the Strength Parameters of concrete(k2)	C411.3	2	1	-	-	2	+		-	-	-		
OF STR	Classify about the differen: types of crack. (k3)	C411.4	3	2	1	<u> </u>	3	-	-	-	-	1	-	
	Describe the various types of special concretes.(k2)	C411.5	2	1		-	2	-	-	-	-	1	-	_
	Acquire knowledge about the techniques for repair (k1)	C411.6	1				1 .	-	-	-	-	1	-	
	Review about concrete coatings and cathodic						1	-	-	-	-	-	-	
	protection (k3)	C411.7	3	2	1		3	_	-		1			
	Explain the demolition procedures and techniques(k2)	C411.8	2	1	-		2					-		
	Illustrate the strengthening parameters of structural elements(k2)	C411.9	1	1			2	-	-	-	-	2	-	-
	TOTAL	C411	2	-			2	-	-	-	-	1	-	-
	3. None	C+11	2	0.9	-		1.9	-	-	-	0	1		

NAME OF THE STAFF: ALAGESHWARI B - 1

Head The Department,

Civil Engineering, Mount Zion College of Engg. & Tech. Pudukkottal - 622 307.