

**AARUPADAI VEEDU INSTITUTE OF
TECHNOLOGY, PAIYANOOR, CHENNAI**
(Constituent Colleges of Vinayaka Mission's Research Foundation,
Deemed to be University, Salem, Tamil Nadu, India)
(AICTE APPROVED AND NAAC ACCREDITED)

Faculty of Engineering and Technology

REGULATIONS 2017

DEPARTMENT OF CIVIL ENGINEERING

Programme:

B.E / B.Tech. CIVIL ENGINEERING

Full Time (4 Years)

STRUCTURED CHOICE BASED CREDIT SYSTEM (SCBCS)

CURRICULUM AND SYLLABUS

(Semester I to VIII)

PROGRAM OUTCOMES (POs) OR GRADUATE ATTRIBUTES

On completion of program of engineering, graduates will be able to:

Sl. No.	Outcome	Level of Outcome	Description
PO 1	Engineering knowledge	Apply	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	Problem analysis	Apply	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	Design/development of solutions	Apply	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	Conduct investigations of complex problems	Apply	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	Modern tool usage	Create	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO 6	The engineer and society	Evaluate	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	Environment and sustainability	Analyze	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	Ethics	Evaluate	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	Individual and team work	Analyze	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	Communication	Evaluate	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11	Project management and finance	Create	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	Life-long learning	Create	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

2. PROGRAM SPECIFIC OUTCOMES (PSOs)

On Upon successful completion of the course the students are expected to:

Sl. No.	Outcome	Level of Outcome	Description
PSO 1	Multi-Dimensional Approach	Evaluate	Enhance the employability skills by making the students capable of qualifying National level competitive examinations
PSO 2	Develop/Design/Modify/Involve	Create	Recognise the technical competencies to deal with practical aspects of Civil Engineerig.
PSO 3	Entrepreneurial Skills	Create	Cognizance of social awareness and environmental necessity along with ethical responsibility to have a successful career and to become an entrepreneur.

Credit Requirement for Course Categories

CATEGORY	CONTENT	CREDITS TO BE OBTAINED	EARNED CREDIT
A	FOUNDATION COURSES (FC)	54-63	62
	(i). Humanities and Sciences (English, Management Subjects)	12-21	15
	(ii). Basic Sciences (Maths, Physics, Chemistry Subjects)	24-33	24
	(iii). Engineering Sciences (Basic Engineering Courses)	18-27	23
B	CORE COURSES (CC)	81	81
C	ELECTIVE COURSES (EC)	18-27	21
	(i). Programme Specific (Classroom or online)	12-15	15
	(ii). Open Electives (Classroom or online)	6-9	6
D	PROJECT+INTERNSHIP+INDUSTRY ELECTIVES (PII)	18	18
	(i). Project	9	9
	(ii). Internship / Mini project / Industry supported courses	9	9
E	EMPLOYABILITY ENHANCEMENT COURSES+ CO-CURRICULAR COURSES+ EXTRA CURRICULAR COURSES (EEC)**	9-18	

Minimum Credits to be Obtained	:	180
Total Earned Credit	:	182

** - Mandatory, credit would be mentioned in mark sheets but not included for CGPA calculations.

CURRICULUM
B.E / B.TECH.-
CIVIL
ENGINEERING -
SEMESTER
I TO VIII

CATEGORY A – FOUNDATION COURSES - HS, BS AND ES COURSES - CREDITS (54-63)

B.E / B.TECH. –CIVIL ENGINEERING - SEMESTER I TO VIII									
CATEGORY A – FOUNDATION COURSES - HSS, BS AND ES COURSES - CREDITS (54-63)									
(i) HUMANITIES AND SCIENCES (ENGLISH AND MANAGEMENT SUBJECTS) - CREDITS (12 - 21)									
SL. NO	CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.	17EGHS01	TECHNICAL ENGLISH	ENGLISH	FC (HSS)	3	0	0	3	NIL
2.	17EGHS81	ENGLISH LANGUAGE LAB	ENGLISH	FC (HSS)	0	0	4	2	NIL
3.	17YMHS82	YOGA AND MEDITATION	PHYSICAL EDUCATION	FC (HSS)	0	0	4	2	NIL
4.	17EGHS82	PROFESSIONAL COMMUNICATION AND PERSONALITY DEVELOPMENT	ENGLISH	FC (HSS)	0	0	4	2	NIL
5.	17EGHS02	BUSINESS ENGLISH	ENGLISH	FC (HSS)	3	0	0	3	NIL
6.	17MBHS04	TOTAL QUALITY MANAGEMENT	MANAGEMENT	FC (HSS)	3	0	0	3	NIL
7.	17MBHS03	ENGINEERING MANAGEMENT AND ETHICS	MANAGEMENT	FC (HSS)	3	0	0	3	NIL
8.	17MBHS07	PROFESSIONAL ETHICS AND HUMAN VALUES	MANAGEMENT	FC (HSS)	3	0	0	3	NIL

CATEGORY A – FOUNDATION COURSES - HS, BS AND ES COURSES - CREDITS (54-63)

(ii) BASIC SCIENCES (MATHS, PHYSICS AND CHEMISTRY SUBJECTS) - CREDITS (24 - 33)									
1.	17MABS01	ENGINEERING MATHEMATICS	MATHEMATICS	FC (BS)	2	2	0	3	NIL
2.	17MABS08	MATHEMATICS FOR CIVIL ENGINEERS	MATHEMATICS	FC (BS)	2	2	0	3	ENGINEERING MATHEMATICS
3.	17MABS13	PDE APPLICATION AND COMPLEX ANALYSIS	MATHEMATICS	FC (BS)	2	2	0	3	MATHEMATICS FOR CIVIL ENGINEERING
4.	17MABS16	NUMERICAL METHODS	MATHEMATICS	FC (BS)	2	2	0	3	ENGINEERING MATHEMATICS
5.	17PCBS02	PHYSICAL SCIENCES	PHYSICS & CHEMISTRY	FC (BS)	4	0	0	4	NIL
6.	17PCBS81	PHYSICAL SCIENCES LAB	PHYSICS & CHEMISTRY	FC (BS)	0	0	4	2	NIL
7.	17PHBS05	SMART MATERIALS	PHYSICS	FC (BS)	3	0	0	3	NIL
8.	17CHBS01	ENVIRONMENTAL SCIENCE AND ENGINEERING	CHEMISTRY	FC (BS)	3	0	0	3	NIL
9.	17CHBS06	GREEN BUILDING MATERIALS	CHEMISTRY	FC (BS)	3	0	0	3	NIL
10.	17PHBS01	NON-DESTRUCTIVE TESTING OF MATERIALS	PHYSICS	FC (BS)	3	0	0	3	NIL
11.	17PHBS09	NANOSCIENCE & TECHNOLOGY	PHYSICS	FC (BS)	3	0	0	3	NIL

CATEGORY A – FOUNDATION COURSES - HS, BS AND ES COURSES - CREDITS (54-63)

(iii) ENGINEERING SCIENCES (BASIC ENGINEERING COURSES) - CREDITS (18 - 27)									
1.	17CSES01	ESSENTIALS OF COMPUTING (THEORY + PRACTICE)	CSE	FC(ES)	2	0	2	3	NIL
2.	17CSES05	PROGRAMMING IN PYTHON	CSE	FC(ES)	3	0	0	3	NIL
3.	17CSES83	PROGRAMMING IN PYTHON LAB	CSE	FC(ES)	0	0	4	2	NIL
4.	17CMES02	BASICS OF CIVIL AND MECHANICAL ENGINEERING	CIVIL & MECHANICAL	FC(ES)	4	0	0	4	NIL
5.	17CMES81	ENGINEERING SKILLS PRACTICE LAB A. BASIC CIVIL ENGINEERING B. BASIC MECHANICAL ENGINEERING	CIVIL & MECHANICAL	FC(ES)	0	0	4	2	NIL
6.	17EEES03	BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING	EEE & ECE	FC(ES)	4	0	0	4	NIL
7.	17MEES84	ENGINEERING GRAPHICS (THEORY + PRACTICE)	MECHANICAL	FC(ES)	1	0	4	3	NIL
8.	17EEES82	ENGINEERING SKILL PRACTICE LAB A. BASIC ELECTRICAL ENGINEERING B. BASIC ELECTRONICS ENGINEERING	EEE & ECE	FC(ES)	0	0	4	2	NIL

CATEGORY B – CORE COURSES RELEVANT TO THE PROGRAMME - CREDITS (81)

B.E. / B.TECH. – CIVIL ENGINEERING - SEMESTER I TO VIII									
CATEGORY B – CORE COURSES RELEVANT TO THE PROGRAMME - CREDITS (81)									
SL. NO	CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1	17CVCC01	CONSTRUCTION MATERIALS	CIVIL	CC	3	0	0	3	NIL
2	17CVCC02	MECHANICS OF SOLIDS -I	CIVIL	CC	2	1	0	3	NIL
3	17CVCC03	MECHANICS OF FLUIDS	CIVIL	CC	2	1	0	3	NIL
4	17CVCC04	SURVEYING I	CIVIL	CC	3	0	0	3	NIL
5	17CVCC05	CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICES	CIVIL	CC	3	0	0	3	NIL
6	17CVCC06	MECHANICS OF SOLIDS -II	CIVIL	CC	2	1	0	3	MECHANICS OF SOLIDS- I
7	17CVCC07	APPLIED HYDRAULIC ENGINEERING	CIVIL	CC	2	1	0	3	MECHANICS OF FLUIDS
8	17CVCC08	SURVEYING -II	CIVIL	CC	3	0	0	3	SURVEYING -I
9	17CVCC09	ENVIRONMENTAL ENGINEERING	CIVIL	CC	3	0	0	3	NIL
10	17CVCC10	DESIGN OF REINFORCED CONCRETE ELEMENTS	CIVIL	CC	2	1	0	3	MECHANICS OF SOLIDS -II
11	17CVCC11	STRUCTURAL ANALYSIS	CIVIL	CC	2	1	0	3	MECHANICS OF SOLIDS -II
12	17CVCC12	MECHANICS OF SOILS	CIVIL	CC	2	1	0	3	NIL
13	17CVCC13	DESIGN OF STEEL STRUCTURES	CIVIL	CC	2	1	0	3	MECHANICS OF SOLIDS- II
14	17CVCC14	HIGHWAY ENGINEERING	CIVIL	CC	3	0	0	3	NIL
15	17CVCC15	RAILWAY , AIRPORT AND HARBOUR ENGINEERING	CIVIL	CC	3	0	0	3	HIGHWAY ENGINEERING
16	17CVCC16	DESIGN OF REINFORCED CONCRETE STRUCTURES	CIVIL	CC	2	1	0	3	DESIGN OF REINFORCED CONCRETE ELEMENTS
17	17CVCC17	MODERN METHODS OF STRUCTURAL ANALYSIS	CIVIL	CC	2	1	0	3	STRUCTURAL ANALYSIS
18	17CVCC18	FOUNDATION ENGINEERING	CIVIL	CC	2	1	0	3	MECHANICS OF SOILS
19	17CVCC19	ESTIMATION AND QUANTITY SURVEYING	CIVIL	CC	2	1	0	3	NIL
20	17CVCC20	CONSTRUCTION PLANNING AND SCHEDULING	CIVIL	CC	3	0	0	3	NIL
21	17CVCC81	COMPUTER AIDED BUILDING DRAWING LAB	CIVIL	CC	0	0	4	2	NIL
22	17CVCC82	STRENGTH OF MATERIALS LAB	CIVIL	CC	0	0	4	2	NIL
23	17CVCC83	SURVEY PRACTICAL -I LAB	CIVIL	CC	0	0	4	2	NIL
24	17CVCC84	HYDRAULIC ENGINEERING LAB	CIVIL	CC	0	0	4	2	MECHANICS OF FLUIDS
25	17CVCC85	SURVEY PRACTICAL -II LAB	CIVIL	CC	0	0	4	2	SURVEY PRACTICAL -I LAB
26	17CVCC86	SOIL MECHANICS LAB	CIVIL	CC	0	0	4	2	NIL
27	17CVCC87	ENVIRONMENTAL ENGINEERING LAB	CIVIL	CC	0	0	4	2	NIL
28	17CVCC88	COMPUTER AIDED DESIGN AND DRAWING LAB	CIVIL	CC	0	0	4	2	DESIGN OF REINFORCED CONCRETE ELEMENTS
29	17CVCC89	CONCRETE AND CONSTRUCTION TECHNOLOGY LAB	CIVIL	CC	0	0	4	2	CONSTRUCTION MATERIALS
30	17CVCC90	SURVEY CAMP	CIVIL	CC	0	0	2	1	SURVEY PRACTICAL -II LAB
31	17CVCC91	COMPREHENSION LAB	CIVIL	CC	1	1	0	2	NIL

CATEGORY C – ELECTIVE COURSES - CREDITS (18 - 27)

B.E / B.TECH. – CIVIL ENGINEERING - SEMESTER I TO VIII									
DETAILS OF ELECTIVE COURSES FOR DEGREE WITH SPECIALISATION									
CATEGORY C – ELECTIVE COURSES - CREDITS (18 - 27)									
(i) PROGRAMME SPECIFIC (CLASS ROOM OR ONLINE) - CREDITS (12 - 15)									
SL. NO	CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1	17CVEC01	ENGINEERING GEOLOGY	CIVIL	EC	3	0	0	3	NIL
2	17CVEC02	IRRIGATION ENGINEERING	CIVIL	EC	3	0	0	3	ENVIRONMENTAL ENGINEERING
3	17CVEC03	GEOGRAPHICAL INFORMATION SYSTEM	CIVIL	EC	3	0	0	3	NIL
4	17CVEC04	REPAIR AND REHABILITATION OF STRUCTURES	CIVIL	EC	3	0	0	3	CONSTRUCTION TECHNIQUES, EQUIPMENTS AND PRACTICES
5	17CVEC05	TRAFFIC ENGINEERING AND MANAGEMENT	CIVIL	EC	3	0	0	3	HIGHWAY ENGINEERING
6	17CVEC06	HYDROLOGY	CIVIL	EC	3	0	0	3	NIL
7	17CVEC07	DISASTER MITIGATION AND MANAGEMENT	CIVIL	EC	3	0	0	3	NIL
8	17CVEC08	REMOTE SENSING TECHNIQUES AND APPLICATIONS	CIVIL	EC	3	0	0	3	NIL
9	17CVEC09	HOUSING PLANNING AND MANAGEMENT	CIVIL	EC	3	0	0	3	NIL
10	17CVEC10	MANAGEMENT OF IRRIGATION SYSTEMS	CIVIL	EC	3	0	0	3	IRRIGATION ENGINEERING
11	17CVEC11	GROUND IMPROVEMENT TECHNIQUES	CIVIL	EC	3	0	0	3	MECHANICS OF SOILS
12	17CVEC12	INTRODUCTION TO SOIL DYNAMICS AND MACHINE FOUNDATIONS	CIVIL	EC	3	0	0	3	MECHANICS OF SOILS
13	17CVEC13	ELECTRONIC SURVEYING	CIVIL	EC	3	0	0	3	SURVEYING 1
14	17CVEC14	AIR POLLUTION MANAGEMENT	CIVIL	EC	3	0	0	3	ENVIRONMENTAL ENGINEERING
15	17CVEC15	BRIDGE STRUCTURES	CIVIL	EC	3	0	0	3	DESIGN OF STEEL STRUCTURES
16	17CVEC16	TALL BUILDINGS	CIVIL	EC	3	0	0	3	DESIGN OF STEEL STRUCTURES
17	17CVEC17	STRUCTURAL DYNAMICS	CIVIL	EC	3	0	0	3	STRUCTURAL ANALYSIS
18	17CVEC18	WIND ENGINEERING	CIVIL	EC	3	0	0	3	NIL
19	17CVEC19	COMPUTER AIDED DESIGN OF STRUCTURES	CIVIL	EC	2	0	1	3	DESIGN OF REINFORCED CONCRETE ELEMENTS
20	17CVEC20	INDUSTRIAL STRUCTURES	CIVIL	EC	3	0	0	3	DESIGN OF STEEL STRUCTURE
21	17CVEC21	SMART STRUCTURES AND SMART MATERIALS	CIVIL	EC	3	0	0	3	SMART MATERIALS
22	17CVEC22	FINITE ELEMENT TECHNIQUES	CIVIL	EC	2	1	0	3	STRUCTURAL ANALYSIS
23	17CVEC23	DESIGN OF PLATE AND SHELL STRUCTURES	CIVIL	EC	3	0	0	3	DESIGN OF STEEL STRUCTURES
24	17CVEC24	GROUND WATER ENGINEERING	CIVIL	EC	3	0	0	3	ENVIRONMENTAL ENGINEERING
25	17CVEC25	PRINCIPLES OF STRUCTURAL DYNAMICS AND SEISMIC DESIGN	CIVIL	EC	3	0	0	3	FOUNDATION ENGINEERING
26	17CVEC26	CONTRACT LAWS AND REGULATIONS	CIVIL	EC	3	0	0	3	NIL
27	17CVEC27	TRANSPORT ECONOMICS	CIVIL	EC	3	0	0	3	HIGHWAY ENGINEERING
28	17CVEC28	MASS TRANSPORT MANAGEMENT	CIVIL	EC	3	0	0	3	HIGHWAY ENGINEERING
29	17CVEC29	WATER RESOURCES SYSTEMS ANALYSIS	CIVIL	EC	3	0	0	3	ENVIRONMENTAL ENGINEERING
30	17CVEC30	ARCHITECTURE	CIVIL	EC	3	0	0	3	NIL
31	17CVEC31	PAVEMENT ENGINEERING	CIVIL	EC	3	0	0	3	HIGHWAY ENGINEERING

32	17CVEC32	STORAGE STRUCTURES	CIVIL	EC	3	0	0	3	DESIGN OF REINFORCED CONCRETE ELEMENTS
33	17CVEC33	EXPERIMENTAL ANALYSIS OF STRESS	CIVIL	EC	2	1	0	3	STRUCTURAL ANALYSIS
34	17CVEC34	SHORING, SCAFFOLDING AND FORM WORK	CIVIL	EC	3	0	0	3	CONSTRUCTION MATERIALS
35	17CVEC35	MUNICIPAL SOLID AND WASTE MANAGEMENT	CIVIL	EC	3	0	0	3	NIL
36	17CVEC36	WASTE WATER ENGINEERING	CIVIL	EC	3	0	0	3	NIL

CATEGORY C – ELECTIVE COURSES - CREDITS (18 - 27)

(ii) OPEN ELECTIVES (CLASS ROOM OR ONLINE) - CREDITS (6 - 9)									
1.	17BTEC02	OCEAN SCIENCE	BTE	OE	3	0	0	3	NIL
2.	17BTEC26	ECO-FRIENDLY MULTI-STOREY BUILDING	BTE	OE	3	0	0	3	NIL
3.	17BTEC27	RENEWABLE ENERGY AND CONSTRUCTION METHODS	BTE	OE	3	0	0	3	NIL
4.	17BTEC28	ENVIRONMENT FRIENDLY PRACTICES IN CIVIL ENGINEERING	BTE	OE	3	0	0	3	NIL
5.	17BTEC25	BIOLOGY FOR NON BIOLOGISTS	BTE	OE	3	0	0	3	NIL
6.	17CSEC06	CRYPTOGRAPHY AND NETWORK SECURITY	CSE	OE	3	0	0	3	NIL
7.	17CSCC19	INTRERNET OF THINGS	CSE	OE	3	0	0	3	NIL
8.	17CSCC17	CYBER SECURITY	CSE	OE	3	0	0	3	NIL
9.	17CSEC11	GREEN COMPUTING	CSE	OE	3	0	0	3	NIL
10.	17CSEC34	WEB DESIGN AND MANAGEMENT	CSE	OE	3	0	0	3	NIL
11.	17BMEC04	MEMS AND ITS BIOMEDICAL APPLICATIONS	BME	OE	3	0	0	3	NIL
12.	17BMEC12	HOSPITAL MANAGEMENT	BME	OE	3	0	0	3	NIL
13.	17BMEC20	HOSPITAL INFORMATION SYSTEM	BME	OE	3	0	0	3	NIL
14.	17BMEC05	HOME MEDICARE TECHNOLOGY	BME	OE	3	0	0	3	NIL
15.	17BMEC10	BODY AREA NETWORKS AND MOBILE HEALTHCARE	BME	OE	3	0	0	3	NIL
16.	17ATEC04	SPECIAL TYPES OF VEHICLES	AUTOMOBILE	OE	3	0	0	3	NIL
17.	17ATEC06	AUTOMOTIVE SAFETY	AUTOMOBILE	OE	3	0	0	3	NIL
18.	17ATEC10	ALTERNATIVE ENERGY SOURCES FOR AUTOMOBILES	AUTOMOBILE	OE	3	0	0	3	NIL
19.	17ATEC15	VEHICLE TRANSPORT MANAGEMENT	AUTOMOBILE	OE	3	0	0	3	NIL
20.	17ATEC17	VEHICLE AIR-CONDITIONING	AUTOMOBILE	OE	3	0	0	3	NIL
21.	17EEEC10	POWER QUALITY	EEE	OE	3	0	0	3	NIL
22.	17EEEC11	POWER SYSTEM PLANNING AND RELIABILITY	EEE	OE	3	0	0	3	NIL
23.	17EEEC16	ELECTRIC VEHICLES	EEE	OE	3	0	0	3	NIL
24.	17EEEC18	RENEWABLE ENERGY TECHNOLOGY	EEE	OE	3	0	0	3	NIL
25.	17EEEC21	NON CONVENTIONAL ENERGY SOURCES	EEE	OE	3	0	0	3	NIL
26.	17MESE12	PRODUCT LIFE CYCLE MANAGEMENT	MECH	OE	3	0	0	3	NIL
27.	17MESE21	IRON AND STEEL MAKING	MECH	OE	3	0	0	3	NIL
28.	17MESE25	COMPUTATIONAL FLUID DYNAMICS	MECH	OE	3	0	0	3	NIL
29.	17MESE34	FAILURE ANALYSIS OF MATERIALS	MECH	OE	3	0	0	3	NIL
30.	17MESE27	POWER PLANT ENGINEERING	MECH	OE	3	0	0	3	NIL
31.	17ECEC04	DSP WITH FPGA	ECE	OE	3	0	0	3	NIL
32.	17ECEC06	MEMS AND SENSORS	ECE	OE	3	0	0	3	NIL
33.	17ECEC21	ADVANCED ROBOTICS	ECE	OE	3	0	0	3	NIL
34.	17ECEC22	INNOVATIVE PROJECT	ECE	OE	3	0	0	3	NIL

35.	17ECEC23	MACHINE VISION	ECE	OE	3	0	0	3	NIL
36.	17MBHS06	LEAN START-UP MANAGEMENT	MBA	OE	3	0	0	3	NIL

CATEGORY D
PROJECT + INTERNSHIP + INDUSTRY ELECTIVES (P + I + I)
CREDITS (18)

B.E. / B.TECH. – CIVIL ENGINEERING - SEMESTER I TO VIII									
CATEGORY D – PROJECT + INTERNSHIP + INDUSTRY ELECTIVES (P + I + I)- CREDITS (18)									
(i) PROJECT - CREDITS (9)									
SL. NO	CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.	17CVPI01	PROJECT WORK AND VIVA VOCE	CIVIL	PI	0	0	18	9	NIL
(ii) INTERNSHIP / MINI PROJECT / INDUSTRY SUPPORTED COURSES - CREDITS (9)									
SL. NO	CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.	17CVPI02	INTERNSHIP TRAINING	CIVIL	PI	0	0	6	3	NIL
2.	17CVPI03	MINI PROJECT	CIVIL	PI	0	0	6	3	NIL
3.	17CVPI04	UNIT OPERATIONS AND PROCESS IN WATER AND WASTE WATER	CIVIL	PI	3	0	0	3	NIL
4.	17CVPI05	CONSTRUCTION PROJECT MANAGEMENT	CIVIL	PI	3	0	0	3	NIL
5.	17CVPI06	PREFABRICATED STRUCTURES	CIVIL	PI	3	0	0	3	NIL
6.	17CVPI07	INDUSTRIAL WASTE MANAGEMENT	CIVIL	PI	3	0	0	3	NIL

CATEGORY E

**EMPLOYABILITY ENHANCEMENT COURSES, CO - CURRICULAR COURSES AND
EXTRA CURRICULAR COURSES (EEC)** - CREDITS (9 - 18)**
(- MANDATORY, CREDITS WOULD BE MENTIONED IN MARK SHEETS BUT NOT
INCLUDED FOR CGPA CALCULATIONS.)**

B.E / B.TECH. – CIVIL ENGINEERING - SEMESTER I TO VIII									
CATEGORY E – EMPLOYABILITY ENHANCEMENT COURSES, CO - CURRICULAR COURSES AND EXTRA CURRICULAR COURSES (EEC)** - CREDITS (9 - 18)									
(** - MANDATORY, CREDITS WOULD BE MENTIONED IN MARK SHEETS BUT NOT INCLUDED FOR CGPA CALCULATIONS.)									
S.NO.	CODE	COURSE TITLE	OFFERING DEPT	CATEGORY	L	T	P	C	PRE - REQUIST
i	EMPLOYABILITY ENHANCEMENT COURSES (EEC)								
1	17APEE01	PERSONALITY SKILLS DEVELOPMENT - I	MATHS	EE	2 WEEKS OF TRAINING			1	NIL
2	17APEE02	PERSONALITY SKILLS DEVELOPMENT - II	ENGLISH & MANAGEMENT	EE	2 WEEKS OF TRAINING			1	NIL
3	17CVVEE01	ADVANCED BUILDING DRAWING	CIVIL	EE	0	0	4	2	NIL
4	17CVVEE02	QUANTITY SURVEYING	CIVIL	EE	0	0	4	2	NIL
5	17CVVEE03	MUNICIPALITY BUILDING DESIGN BY LAWS	CIVIL	EE	0	0	4	2	NIL
6	17CVVEE04	STRUCTURAL DETAILING WITH THE USE OF SOFTWARES	CIVIL	EE	0	0	4	2	NIL
7	17CVVEE05	QUALITY CONTROL IN CONSTRUCTION	CIVIL	EE	0	0	4	2	NIL
8	17CVVEE06	ADVANCED LAND SURVEYING TECHNIQUES	CIVIL	EE	0	0	4	2	NIL
9	17CVVEE07	ADVANCED BUILDING MATERIALS AND CONSTRUCTION CHEMICALS	CIVIL	EE	0	0	4	2	NIL
CO - CURRICULAR COURSES									
1	17APEE03	NCC	NCC CELL	EE	2 WEEKS OF TRAINING IN NCC CAMP			1	NIL
2	17APEE04	NSS	NSS CELL	EE	2 WEEKS OF SOCIAL SERVICE IN NSS CAMP			1	NIL
3	17APEE05	SPORTS AND GAMES (INTER – UNIVERSITY LEVEL)	PHYSICAL EDUCATION	EE				1	NIL
4	17APEE06	SPORTS AND GAMES (INTRA- UNIVERSITY LEVEL)	PHYSICAL EDUCATION	EE				2	NIL
5	17APEE07	SPORTS AND GAMES (STATE AND NATIONAL LEVELS)	PHYSICAL EDUCATION	EE				2	NIL
EXTRA CURRICULAR COURSES									
1	17CVVEE08	EXTRA CURRICULAR COURSE - I	CIVIL	EE	15 HOURS			1	NIL
2	17CVVEE09	EXTRA CURRICULAR COURSE - II	CIVIL	EE	15 HOURS			1	NIL
3	17CVVEE10	EXTRA CURRICULAR COURSE - III	CIVIL	EE	15 HOURS			1	NIL
4	17CVVEE11	EXTRA CURRICULAR COURSE - IV	CIVIL	EE	15 HOURS			1	NIL
5	17CVVEE12	EXTRA CURRICULAR COURSE - V	CIVIL	EE	15 HOURS			1	NIL
6	17CVVEE13	EXTRA CURRICULAR COURSE -VI	CIVIL	EE	15 HOURS			1	NIL

**FOR DEGREE WITH
SPECIALISATION**

**CATEGORY C –
PROGRAMME SPECIFIC
ELECTIVE COURSES -
CREDITS (12 - 15)**

SPECIALISATION - ERP IN CONSTRUCTION

SPECIALISATION – ERP IN CONSTRUCTION									
1.	17CVSE01	APPLICATION OF STATISTICAL METHODS IN CONSTRUCTION	MATHS	EC - PS	3	0	0	3	ENGINEERING MATHEMATICS
2.	17CVSE02	ENTERPRISE WIDE INFORMATION SYSTEMS	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE03	MANAGEMENT AND PROJECT PLANNING IN CONSTRUCTION	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE04	CONSTRUCTION CONTRACTS AND ADMINISTRATION	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE05	TQM IN CONSTRUCTION	CIVIL	EC - PS	3	0	0	3	TOTAL QUALITY MANAGEMENT
6.	17CVSE06	HUMAN RESOURCE MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE07	ENTERPRISE RESOURCE PLANNING SYSTEM	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - IRRIGATION ENGINEERING

SPECIALISATION – IRRIGATION ENGINEERING									
1.	17CVSE08	SURFACE AND GROUND WATER HYDROLOGY	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE09	ENVIRONMENTAL IMPACT ASSESSMENT OF IRRIGATION PROJECTS	CIVIL	EC - PS	3	0	0	3	IRRIGATION ENGINEERING
3.	17CVSE10	WATERSHED CONSERVATION AND MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE11	IRRIGATION SYSTEMS MANAGEMENT	CIVIL	EC - PS	3	0	0	3	IRRIGATION ENGINEERING
5.	17CVSE12	COMPUTATIONAL METHODS IN IRRIGATION MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE13	AGRICULTURAL ECONOMICS	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE14	MODERNIZATION OF IRRIGATION SYSTEMS	CIVIL	EC - PS	3	0	0	3	IRRIGATION ENGINEERING

SPECIALISATION - DISASTER MITIGATION AND RECOVERY

SPECIALISATION – DISASTER MITIGATION AND RECOVERY									
1.	17CVSE15	TPOLOGY OF NATURAL AND MANMADE DISASTERS	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE16	CRISIS COMMUNICATION & MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE17	DISASTER PREPAREDNESS AND DECISION MAKING	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE18	VULNERABILITY MAPPING TECHNIQUES FOR DISASTERS	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE19	INDUSTRIAL HAZARDS PREVENTIVE MANAGEMENT.	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE20	APPLICATION OF GIS&RS IN DISASTER MANAGEMENT.	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE21	FINANCE AND INSURANCE IN DISASTER MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - MASS TRANSPORT SYSTEMS

SPECIALISATION – MASS TRANSPORT SYSTEMS									
1.	17CVSE22	ADVANCED SYSTEM DYNAMICS MODELING IN TRANSPORTATION ENGINEERING	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE23	ENVIRONMENTAL IMPACT ASSESSMENT OF TRANSPORTATION PROJECTS	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE24	INTELLIGENT TRANSPORTATION SYSTEMS	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE25	LOGISTICS IN TRANSPORTATION ENGINEERING	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE26	PAVEMENT MANAGEMENT SYSTEM	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE27	REMOTE SENSING AND GIS IN TRANSPORTATION DEVELOPMENT	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE28	URBAN TRANSPORTATION INFRASTRUCTURE- PLANNING AND DESIGN	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - REAL ESTATE AND VALUATION

SPECIALISATION – REAL ESTATE AND VALUATION									
1	17CVSE29	PRINCIPLES OF VALUATION	CIVIL	EC - PS	3	0	0	3	NIL
2	17CVSE30	REAL ESTATE MANAGEMENT & ECONOMICS	CIVIL	EC - PS	3	0	0	3	NIL
3	17CVSE31	REAL ESTATE HUMAN RESOURCE MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
4	17CVSE32	LAWS FOR ACQUISITION AND CONTRACT	CIVIL	EC - PS	3	0	0	3	NIL
5	17CVSE33	REAL ESTATE FINANCE& MARKETING	CIVIL	EC - PS	3	0	0	3	NIL
6	17CVSE34	VALUATION & DOCUMENTATION WRITING	CIVIL	EC - PS	3	0	0	3	NIL
7	17CVSE35	QUALITY CONTROL AND ASSURANCE IN REAL ESTATE	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - SUSTAINABLE CONSTRUCTION TECHNOLOGY

SPECIALISATION – SUSTAINABLE CONSTRUCTION TECHNOLOGY									
1.	17CVSE36	RENEWABLE ENERGY SYSTEMS	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE37	THERMAL INSULATION INSTALLATION	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE38	SUSTAINABLE URBAN SYSTEMS	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE39	ENERGY AUDITING IN SPECIAL STRUCTURES	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE40	LIFE CYCLE ASSESSMENT FOR COMPLEX SYSTEMS	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE41	INFRASTRUCTURE PROJECT DEVELOPMENT	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE42	GREEN AND ENERGY EFFICIENT BUILDING	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - URBAN INFRASTRUCTURE

SPECIALISATION – URBAN INFRASTRUCTURE									
1.	17CVSE43	INFRASTRUCTURE PLANNING AND URBANIZATION PROCESS	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE44	URBAN ENVIRONMENTAL MANAGEMENT AND LAW	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE45	SUSTAINABILITY IN BUILT ENVIRONMENT	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE46	CONSTRUCTION & CONTRACT SAFETY MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE47	ICT BASED CITY AND INFRASTRUCTURE PLANNING	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE48	URBAN FINANCE	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE49	URBAN DESIGN PROJECT	CIVIL	EC - PS	3	0	0	3	NIL

SPECIALISATION - ENVIRONMENTAL ENGINEERING

SPECIALISATION – ENVIRONMENTAL ENGINEERING									
1.	17CVSE50	ENVIRONMENTAL IMPACT ASSESSMENT	CIVIL	EC - PS	3	0	0	3	NIL
2.	17CVSE51	INSTRUMENTAL MONITORING OF ENVIRONMENT	CIVIL	EC - PS	3	0	0	3	NIL
3.	17CVSE52	INDOOR AIR QUALITY	CIVIL	EC - PS	3	0	0	3	NIL
4.	17CVSE53	ENVIRONMENTAL POLICIES AND LEGISLATIONS	CIVIL	EC - PS	3	0	0	3	NIL
5.	17CVSE54	SUSTAINABLE DEVELOPMENT AND ENVIRONMENT	CIVIL	EC - PS	3	0	0	3	NIL
6.	17CVSE55	REMOTE SENSING AND GIS FOR ENVIRONMENTAL APPLICATION	CIVIL	EC - PS	3	0	0	3	NIL
7.	17CVSE56	WASTE WATER MANAGEMENT	CIVIL	EC - PS	3	0	0	3	NIL

COURSES OFFERED TO OTHER DEPARTMENTS

B.E. / B.TECH. – CIVIL ENGINEERING - SEMESTER I TO VIII									
COURSES OFFERED TO OTHER DEPARTMENTS									
S.NO.	COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	C	PRE-REQUISITE	OFFERED TO
1	17CMES02	BASICS OF CIVIL ENGINEERING	ES	2	0	0	2	NIL	MECHANICAL, AUTOMOBILE, AERONAUTICAL, CIVIL, CSE, ECE, EEE, MECHATRONICS & SAE
2	17CMES81	ENGINEERING SKILLS PRACTICE LAB B. BASIC CIVIL ENGINEERING	ES	0	0	2	1	NIL	MECHANICAL, AUTOMOBILE, AERONAUTICAL, CIVIL, CSE, ECE, EEE, MECHATRONICS & SAE
3	17CVCC32	FLUID MECHANICS AND STRENGTH OF MATERIALS	CC	3	0	0	3	NIL	AUTOMOBILE & MECHATRONICS
4	17CVCC33	STRENGTH OF MATERIALS	CC	3	0	0	3	NIL	MECHANICAL & AERONAUTICAL
5	17CVCC34	FLUID MECHANICS AND MACHINERY	CC	3	0	0	3	NIL	MECHANICAL , AERONAUTICAL
6	17CVCC92	FLUID MECHANICS AND STRENGTH OF MATERIALS LAB	CC	0	0	4	2	NIL	AUTOMOBILE, AERONAUTICAL & MECHATRONICS
7	17CVCC93	HYDRAULICS AND STRENGTH OF MATERIALS LAB	CC	0	0	4	2	NIL	MECHANICAL
8	17CVCC35	FLUID AND SOLID MECHANICS	CC	3	0	0	3	NIL	SAE
9	17CVCC94	FLUID AND SOLID MECHANICS LAB	CC	0	0	4	2	NIL	SAE
10	17CVEC07	DISASTER MITIGATION AND MANAGEMENT	EC	3	0	0	3	NIL	BME, EEE, CSE, CSE-CLOUD, IT & MECHANICAL