



An Autonomous Institute

Shree Warana Vibhag Shikshan Mandal's

**Tatyasaheb Kore Institute of  
Engineering And Technology,  
Warananagar**

NBA Accredited Institute

# **Department of Civil Engineering**

**Final Year B. Tech. Civil Engineering**

To be implemented from 2023-24

## **B. Tech. In Civil Engineering**

Syllabus Structure and Curriculum under Autonomy

## SWVSM'S

**Tatyasaheb Kore Institute of Engineering and Technology, Warananagar**  
**An Autonomous Institute**

### Abbreviations

Sr. No.	Acronym	Definition
1	ISE	In-Semester Examination
2	ISE-I	In-Semester Examination-I
3	ISE-II	In-Semester Examination-II
4	ESE	End Semester Examination
5	ISA	In-Semester Assessment (Term Work)
6	L	Lecture
7	T	Tutorial
8	P	Practical
9	CH	Contact Hours
10	C	Credit

### Course/ Subject Categories

Sr. No.	Acronym	Definition
1	BSC	Basic Science Course
2	HSC	Humanity Science Course
3	ESC	Engineering Science Course
4	PCC	Professional Core Course
5	OEC	Open Elective Course
6	MC	Mandatory Course
7	PEC	Professional Elective Course
8	PW	Project Work (Mini and Major Project)
9	II	Industrial 80808



### CO ,PO & PSO Mapping Correlation:

Low	Medium(Moderate)	High(Substantial)
1	2	3

### Course/ Subject Code

C	E	7	0	1
Branch Code		Semester	Course Number	

### Course Term work and POE Code

C	E	7	0	1	T / P / A
Branch Code		Semester	Course Number		T- Term work P- POE A- Audit Course



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**Vision**

To become an academy of excellence in technical education and human resource development.

**Mission**

- To develop engineering graduates of high repute with professional ethics.
- To excel in academics and research through innovative techniques.
- To facilitate the employability, entrepreneurship along with social responsibility.
- To collaborate with industries and institutes of national recognition.
- To inculcate lifelong learning and respect for the environment.

**Quality Policy**

To promote excellence in academic and training activities by inspiring students for becoming competent professionals to cater industrial and social needs.



**Tatyasaheb Kore Institute of Engineering and Technology, Warananagar**  
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**Final Year B. Tech. In CIVIL Engineering**

**Syllabus under Autonomous Status of TKIET, Warananagar**

**2023-24**



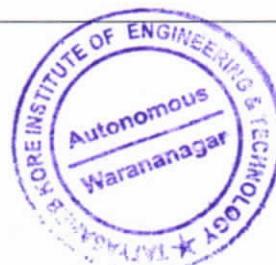
**TATYASAHEB KORE INSTITUTE OF ENGINEERING & TECHNOLOGY,  
WARANANAGAR**

**Department of Civil Engineering**

**4.1 Program Educational Objectives (PEO's)**

After completion of program, Graduates will be able to

1	To Impart quality technical education and graduate the students for employment in civil engineering and related professions.
2	To provide students with solid foundation in mathematical and analytical subjects so as to solve civil engineering problems and also to pursue higher studies.
3	To develop the ability among the students to organize the data, synthesize data and technical concepts which will helps them to solve problems relevant to the general practice of various civil engineering disciplines
4	To inculcate with the student the expertise of using computer tools to solve problems, for presentations works, acquaint them with professional level software for planning , analysis and design purpose
5	To provide an experience in surveying work, site investigations, familiarity with the real issues of civil engineering including ethics, economy, management and emerging technologies
6	To provide an opportunity for the students to work in team by organizing various curricular and professional activities resulting in the improvement of technical and soft skills.



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**4.2 Program Outcomes (POs)**

**After completion of program, Graduates will be able to**

PO1	<b>Demonstrate</b> knowledge in mathematics, basic sciences & civil engineering
PO2	<b>Identify</b> , formulate and solve civil engineering problems.
PO3	<b>Prepare</b> structural design such that fulfills design specification, durability, economy & safety.
PO4	<b>Design</b> and conduct experiment, analyze data & also interpret result to provide conclusion.
PO5	<b>Use</b> appropriate engineering techniques & software tools to analyze civil engineering problems.
PO6	<b>Apply</b> civil engineering knowledge for construction site in all respect like planning, execution and supervision.
PO7	<b>Sensitive</b> towards ethical, societal & environmental issue along with professional work.
PO8	<b>Exhibit</b> understanding of professional & ethical responsibility.
PO9	<b>Ability</b> to function as a leader of multidisciplinary team.
PO10	<b>Communicate</b> effectively in both verbal & written form.
PO11	<b>Develop</b> engineering research ability & project management skill.
PO12	<b>Possess</b> confidence for self education & ability for lifelong learning.

**PROGRAM SPECIFIC OUTCOMES**

**After completion of program, Graduates will be able to**

1	Plan and Design, Maintain and execute smart infrastructural projects.
2	Assess and analyze environmental impact of civil engineering projects and take corrective action for sustainable development.
3	Use leadership and communication abilities to optimally integrate the 4Ms Viz.- Men, Money, Material and Machine



**Final Year B. Tech. in CIVIL Engineering**  
**Syllabus Structure under Autonomous Status of TKIET, Warananagar**  
**SEM VII**  
**To be implemented from**  
**2023-24**



**Final Year B. Tech. (Civil Engineering)****Semester-VII**

(To be implemented from 2023 - 24)

**Credit Scheme**

Course Code	Category	Course Title	Teaching Scheme					Examination & Evaluation Scheme			
			L	T	P	C	CH	Component	Marks	Min for Passing	
CE 701	PCC	Earthquake Engineering	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 702	PCC	Transportation Engineering	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 703	PCC	Quantity Surveying and Valuation	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 704	PEC	Professional Elective II	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 705	PCC	Design of Structures and Drawing I	2	-	-	2	2	ESE	60	24	40
								ISE	40	16	
CE 704T	PCC	Professional Elective II	-	1	-	1	1	ISA	25	10	10
CE 701P	PCC	Earthquake Engineering	-	-	2	1	2	ISA	25	10	10
CE 702P	PCC	Transportation Engineering	-	-	2	1	2	ISA	25	10	10
								POE	25	10	10
CE 703P	PCC	Quantity Surveying and Valuation	-	-	4	2	4	ISA	25	10	10
								POE	25	10	10
CE 705P	PCC	Design of Structures and Drawing I	-	-	2	1	2	ISA	25	10	10
								POE	25	10	10
CE706P	PW	Project Phase I	-	-	4	2	4	ISA	100	40	40
CE 707 A	MC	Audit Course - Field Training	-	-	-	-	-	-	-	-	-
			14	1	14	22	29	--	800	320	320

Professional Elective II – CE704-1 Irrigation Engineering, CE704-2 Solid Waste Management, CE703-3. Advanced Construction Technology, CE704-4 Open Channel Hydraulics



**Final Year B. Tech. (Civil Engineering)**

**Semester-VIII**

(To be implemented from 2023 - 24)

**Track – 1 Capstan /Academic Pattern**

**Credit Scheme**

Course Code	Category	Course Title	Teaching Scheme					Examination & Evaluation Scheme			
			L	T	P	C	CH	Component	Marks	Min for Passing	
CE 801	PCC	Town Planning and Docks-Harbor Engineering	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 802	PCC	Design of Bridges	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE803	PCC	Professional Elective III	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE804	PCC	Professional Elective IV	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 801P	PCC	Town Planning and Docks and Harbor Engineering	-	-	2	1	2	ISA	25	10	10
								POE	50	20	20
CE 802P	PCC	Design of Bridges	-	-	2	1	2	ISA	25	10	10
CE805P	PCC	Design of Structures and Drawing II	-	-	2	1	2	ISA	50	20	20
								POE	50	20	20
CE806P	PW	Project Work – II	-	-	6	3	6	ISA	100	40	40
								POE	100	40	40
CE807A	MC	Audit Course – Paper presentation and Project Competition									
			12	-	12	18	24	--	800	320	--

Professional Elective III – CE803-1 Structural Design of Foundation & Retaining Structures, CE803-2 Advanced Design of Concrete Structures, CE803-3.Pre-stressed Concrete Design, Professional Elective IV - CE804-1 Remote Sensing, GIS and GPS Application in Civil Engineering, CE804-2.Construction Practices, CE804-3.Site Investigation Methods And Practices, CE804-4 Advanced Traffic Engineering



**Final Year B. Tech. (Civil Engineering)**

**Semester-VIII**

(To be implemented from 2023 - 24)

**Track -2 Industrial Internship Pattern**

Course Code	Category	Course Title	Teaching Scheme					Examination & Evaluation Scheme			
			L	T	P	C	CH	Component	Marks	Min for Passing	
CE 801	PCC	Town Planning and Docks-Harbor Engineering	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 802	PCC	Design of Bridges	3	-	-	3	3	ESE	60	24	40
								ISE	40	16	
CE 801P	PCC	Town Planning and Docks and Harbor Engineering	-	-	2	1	2	ISA	25	10	10
								POE	50	20	20
CE 802P	PCC	Design of Bridges	-	-	2	1	2	ISA	25	10	10
CE806P	PW	Project Work – II	-	-	6	3	6	ISA	100	40	40
								POE	100	40	40
CE808P	II	Industrial Internship	-	-	14	7	14	ISA	100	40	40
								POE	200	80	80
CE807A	MC	Audit Course – Paper presentation and Project Competition									
			9	2	24	18	30	--	800	320	--

**Credit Scheme**

**Professional Elective III – CE803-1** Structural Design of Foundation & Retaining Structures, **CE803-2** Advanced Design of Concrete Structures, **CE803-3** Pre-stressed Concrete Design, **Professional Elective IV - CE804-1** Remote Sensing, GIS and GPS Application in Civil Engineering, **CE804-2** Construction Practices, **CE804-3** Site Investigation Methods And Practices, **CE804-4** Advanced Traffic Engineering



## **Final Year B. Tech. (Civil Engineering)**

### **List of Professional Elective Course ( PE II) Sem.VII**

<b>Category</b>	<b>Course Code</b>	<b>Course Title</b>
PCC	CE 704 -1	Irrigation Engineering
	<b>CE 704-2</b>	Solid Waste Management
	<b>CE 704-3</b>	Advanced Construction Technology
	<b>CE 704 -4</b>	Open Channel Hydraulics

### **List of Professional Elective Course ( PE III) Sem.VIII**

<b>Category</b>	<b>Course Code</b>	<b>Course Title</b>
PCC	CE 803 -1	Structural Design of Foundation & Retaining Structures
	<b>CE 803-2</b>	Advanced Design of Concrete Structures
	<b>CE 803-3</b>	Pre-stressed Concrete Design
	<b>CE 803 -4</b>	Dynamics of Structure

### **List of Professional Elective Course ( PE IV) Sem.VIII**

<b>Category</b>	<b>Course Code</b>	<b>Course Title</b>
PCC	CE 804 -1	Remote Sensing, GIS and GPS Application in Civil Engineering
	<b>CE 804-2</b>	Construction Practices
	<b>CE 804-3</b>	Site Investigation Methods And Practices
	<b>CE 804- 4</b>	Advanced Traffic Engineering

