



An Autonomous Institute

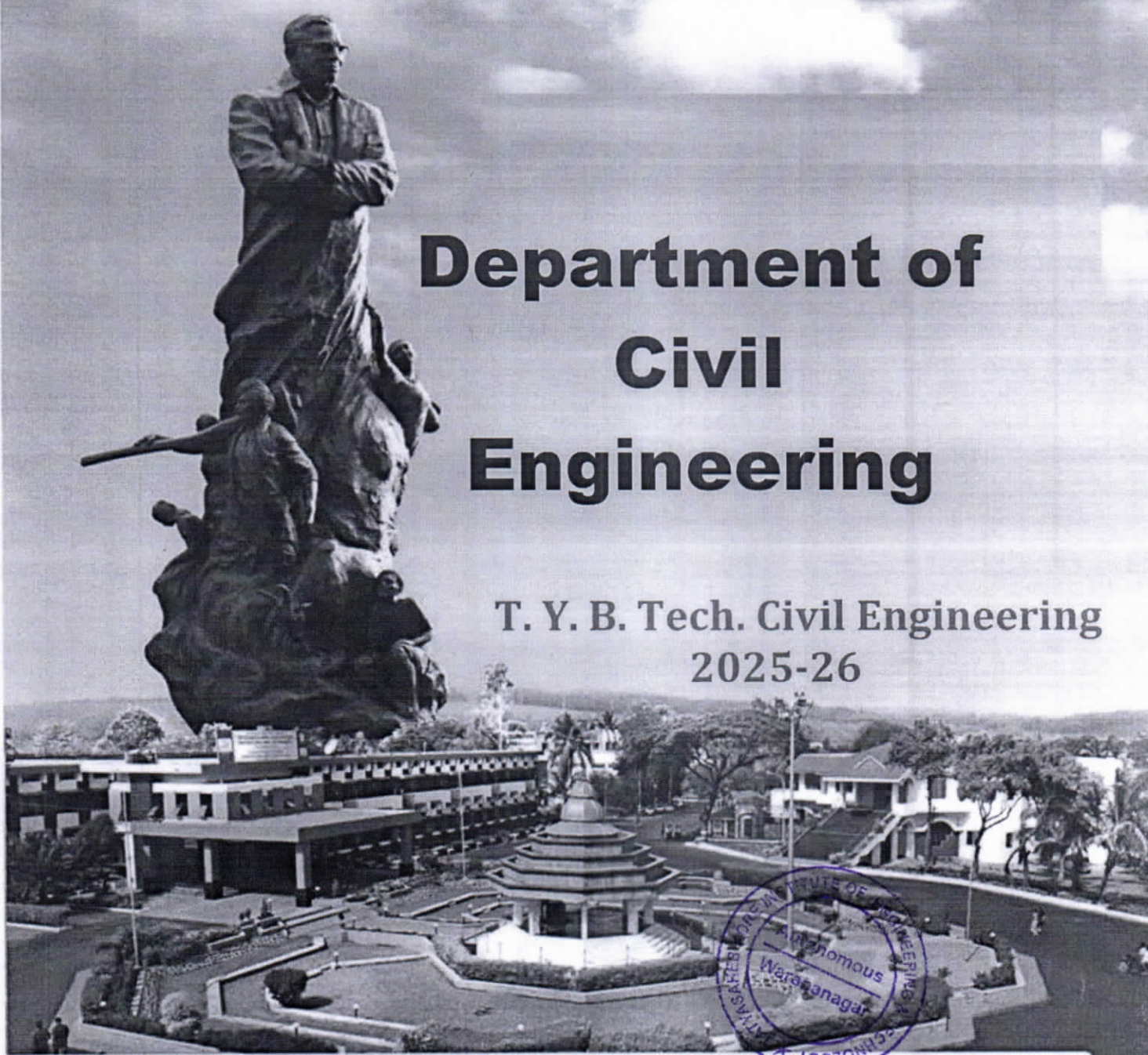
Shree Warana Vibhag Shikshan Mandal's

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

NBA Accredited Institute

Department of Civil Engineering

**T. Y. B. Tech. Civil Engineering
2025-26**



B. Tech. In Civil Engineering

Syllabus Structure and Curriculum under Autonomy

**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	MDM	Multi-Disciplinary Minor
7	PEC	Professional Elective Course
8	PW	Project Work (Mini and Major Project)
9	A	Audit Course

CO, PO & PSO Mapping Correlation:

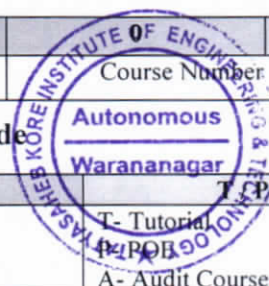
Low	Medium (Moderate)	High (Substantial)
1	2	3

Course/ Subject Code

C	E	5	1
Branch Code		Semester	Course Number

Course Term work and POE Code

C	E	5	0	1	T/P/A
Branch Code		Semester	Course Number		T- Tutorial P- Practical A- Audit Course





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.

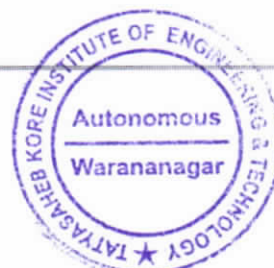


Department of Civil Engineering

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 help 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.





Department of Civil Engineering

Program Outcomes (PO's)

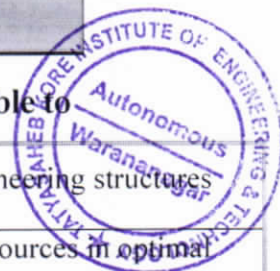
After completion of program, Graduates will be able to

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

Program Specific Outcomes (PSO's)

After completion of program, Graduates will be able to

1	Capable to design, Estimate and Execute a variety of civil engineering structures by considering a sustainable way
2	Work effectively in a team with leadership skills to manage resources in optimal way for any construction activity.
3	Develop a perspective to formulate solutions considering socio economic and





environmental concern.

Third Year B. Tech. In CIVIL Engineering

**Syllabus Structure Under Autonomous Status of
TKIET, Warananagar
As Per NEP 2020
Effective from
2025-26**



Tatyasaheb Kore Institute of Engineering and Technology, Warananagar

Third Year B. Tech. (Civil Engineering)

Semester-V

(Effective from 2025 - 26)

Credit Scheme as per NEP Policy

T. Y. B. Tech. Civil Engineering Sem -V

Sr. No.	Category	Sub Category	Course Code	Name of Course	Teaching Scheme			C	C H	Examination & Evaluation Scheme			
					L	T	P			Component	Marks	Min for Passing	
1	Program Course	PCC	23UGPCC-CE501	Soil Mechanics	3	--	--	3	3	ESE	60	24	40
										ISE	40	16	
2		PCC	23UGPCC-CE502	Theory of Structure	3	--	--	3	3	ESE	60	24	40
										ISE	40	16	
3	Program Course	PCC	23UGPCC-CE503	Water Resource Engineering	3*	--	--	2	3	ESE	60	24	40
										ISE	40	16	
4		PEC-1	23UGPEC1-CE5041	Environmental Engineering	3*	--	--	2	3	ESE	60	24	40
										ISE	40	16	
5	Multidisciplinary Courses	MDM-3	23UGMDM3-CE505	Solid Waste Management	3	1	--	4	4	ESE	60	24	40
										ISE	40	16	
6	Multidisciplinary Courses	OE-2	23UGOE2-CE5061	Optimization Techniques	3	--	--	3	3	ESE	60	24	40
										ISE	40	16	
7	Program Course	PCC	23UGPCC-CE501P	Soil Mechanics	--	--	2	1	2	ISA	25	10	30
										POE	50	20	
8		PCC	23UGPCC-CE502P	Theory of Structure	--	--	2	1	2	ISA	25	10	10
9		PCC	23UGPCC-CE503P	Water Resource Engg.	--	--	2	1	2	ISA	25	10	20
										POE	25	10	
10		PEC-1	23UGPEC1-CE5041P	Environmental Engineering	--	--	2	1	2	ISA	25	10	20
										POE	25	10	
					18	1	08	21	27	--	800	320	320

Note: In theory examination, there will be separate passing of ESE and ISE.



T. Y. B. Tech. Civil Engineering Sem -VI

Sr. No.	Category	Sub Category	Course Code	Name of Course	Teaching Scheme			C	C H	Examination & Evaluation Scheme			
					L	T	P			Component	Marks	Min for Passing	
1	Program Course	PCC	23UGPCC-CE601	Reinforced Concrete Structures	3*	--	--	2	3	ESE	60	24	40
										ISE	40	16	
2		PCC	23UGPCC-CE602	Building Planning & Design	3*	--	--	2	3	ESE	60	24	40
										ISE	40	16	
3		PCC	23UGPCC-CE603	Design of Steel Structures	3	--	--	3	3	ESE	60	24	40
										ISE	40	16	
4		PEC-2	23UGPEC2-CE6041	Advance Foundation Engg.	3	--	--	3	3	ESE	60	24	40
										ISE	40	16	
5		PEC-3	23UGPEC3-CE6051	Construction Mang.	3*	--	--	2	3	ESE	60	24	40
										ISE	40	16	
6	Multidisciplinary Courses	MDM-4	23UGMDM4-CE606	Town Planning	2	--	--	2	2	ISA	50	20	20
7	Skill Courses	Vocational and Skill Enhancement Course (VSEC)	23UGVSEC-CE6071	Civil Software	1	--	2	2	3	ISA	50	20	20
8	Program Course	PCC	23UGPCC-CE601P	Reinforced Concrete Structures	--	--	2	1	2	ISA	25	10	20
										POE	25	10	
		PCC	23UGPCC-CE602P	Building Planning & Design	--	--	2	1	2	ISA	25	10	10
		PEC-2	23UGPEC2-CE6041P	Advance Foundation Engg.	--	--	2	1	2	ISA	25	10	20
										POE	25	10	
		PEC-3	23UGPEC3-CE6051P	Construction Mangt.	--	--	2	1	2	ISA	25	10	10
9		PCC	23UGPCC-CE608P	Structural Design & Drawing-I	--	--	2	1	2	ISA	25	10	20
										POE	25	10	
					18	0	12	21	30	0	800	320	320

Note: In theory examination, there will be separate passing of ESE and ISE.



Multidisciplinary Courses (MDM) Course Basket Sem -V			
Open Elective – OE - II			
Category	Sub Category	Course Code	Name of Course
Multidisciplinary Courses	Open Elective - OE	23UGOE2-CE5061	1. Optimization Techniques
		23UGOE2-CE5062	2. Maintenance, Retrofitting, Rehabilitation of Structure

Skill Courses (SC) Course Basket Sem -VI			
Vocational and Skill Enhancement Course (VSEC)			
Category	Sub Category	Course Code	Name of Course
Skill Courses	Vocational and Skill Enhancement Course (VSEC)	23UGVSEC-CE6071	1. Civil Software Course
		23UGVSEC-CE6072	2. Aptitude & Competitive Examinations (ACE)

Program Electives Courses (PEC) Basket

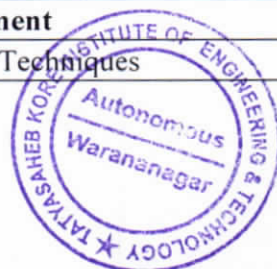
PEC - 1			
Category	Sub Category	Course Code	Name of Course
Program Course	PEC - 1	23UGPEC1-CE5041	1. Environmental Engineering
		23UGPEC1-CE5042	2. Industrial Waste Treatment

Program Electives Courses (PEC) Basket

PEC - 2			
Category	Sub Category	Course Code	Name of Course
Program Course	PEC - 2	23UGPEC2-CE6041	1. Advance Foundation Engineering
		23UGPEC2-CE6042	2. Advance Design of Concrete Structures

Program Electives Courses (PEC) Basket

PEC - 3			
Category	Sub Category	Course Code	Name of Course
Program Course	PEC - 3	23UGPEC3-CE6051	1. Construction Management
		23UGPEC3-CE6052	2. Advanced Construction Techniques



Exit Option to Qualify B. Tech. Vocational completion of T. Y. B. Tech.: Any Two (02) Skill based Courses of 6 credits

Sr. No	Category	Sub Category	Course Code	Name of Course	Teaching Scheme			C	CH	Examination & Evaluation Scheme		
					L	T	P			Component	Marks	Min for Passing
1	Program Course (Any One)	PCC	23UGPCC-CE6101E	Structural Design and Drawing	2	--	2	3	4	ISA	50	20
2		PCC	23UGPCC-CE6102E	Quantity Surveying and Valuation	2	--	2	3	4	ISA	50	20
3	Experiential Learning Courses	Project	23UGPW-CE611E	Mini Project (Compulsory)	--	--	6	3	6	ISA	50	20
					2	0	8	6	10	0	100	40

