



Estd. in 2001

Conferred Autonomous Status by University Grants Commission(UGC) for 10 years w.e.f. A.Y. 2019-20

ISO 9001:2015
Certified
Institute

NBA
Accredited
Programs

NAAC Accredited
Institute
with 'A' Grade

AICTE-CII Survey rating
in Platinum category for
Industry linkages

Amongst Top 200 Colleges in the Country
Ranked 193rd in NIRF India Ranking 2019
in Engineering Category

68th & 78th in All India
Rank by Outlook survey
published in June 2019 &
May 2018 respectively



Nurturing Budding Engineers to become Global Professionals with Human Values



**Choice Based Credit Grading System with Holistic Student Development
(CBCGS-H 2019)**

(Under TCET-Autonomy Scheme-2019)

**Information Brochure
(A.Y 2019-20)**

Zagdu Singh Charitable Trust's (Regd.)

THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY
Autonomous College Affiliated to University of Mumbai

Approved by All India Council for Technical Education(AICTE) and Government of Maharashtra

A - Block, Thakur Educational Campus, Shyamnarayan Thakur Marg, Thakur Village, Kandivali (East), Mumbai - 400 101

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May 2018 respectively

VISION

Thakur College of Engineering and Technology will excel in Technical Education to become an internationally renowned premier Institute of Engineering and Technology

MISSION

To provide state-of-the-art infrastructure and right academic ambience for developing professional skills as well as an environment for growth of leadership and managerial skills to students which will make them competent engineers to deliver quality results in the industry

CORE VALUES

- Integrity & Accountability
- Respect for each Individual
- Sensitive towards Social Responsibilities
- Unfettered spirit of learning, Exploration, Rationality & Enterprise
- Exploration & Enterprise for both Faculty and Students

CORE COMPETENCIES

- Structured & Guided Teaching Learning Methodology Maintaining Academic Rigor
- System - Driven - Student - Centric Services
- Proactive Student Professional and Personality Development Programmes
- State - of - the - art Infrastructure meeting International Standards

Programmes offered with Specialization

Department	Programmes			Self-Study Specialization Courses offered (optional)
	U.G	P.G	Research	
Computer Engineering(COMP)	B.E.	M.E.	Ph.D. (Technology)	1) Artificial Intelligence 2) Data Science
Electronics Telecommunication (E&TC)	B.E.	M.E.	Ph.D. (Technology)	1) Wireless Communication 2) Internet of Things (IOT)
Information Technology(IT)	B.E.	M.E.	Ph.D. (Technology)	1) Application Development Paradigms 2) Infrastructure Security
Electronics Engineering(ELEX)	B.E.	–	–	1) Very Large Scale Integration (VLSI) 2) Industrial Automation (IA)
Mechanical Engineering(MECH)	B.E.	–	–	1) Industry 4.0 Practices 2) Product Design
Civil Engineering(CIVIL)	B.E.	–	–	1) Smart Infrastructure 2) Structural Engineering

Credit Distribution Summary

Scheme	F.E	S.E	T.E	B.E	Total	HSD	Credit for award of Degree	Optional Credits through Self Study		Grand Total
								Specialization	Achiever's Credits	
Choice Based Credit Grading Scheme with Holistic Student Development(CBCGS-H) 2019-23 onwards Batch)	42	44	43	36	165	24	189	20	08	217
Choice Based Credit Grading Scheme with Holistic Student Development(CBCGS-H) 2018-22 Batch)	54	44	43	36	177	24	201	20	08	229
Choice Based Credit Grading Scheme with Holistic Student Development (CBCGS-H UoM- 2017-21 Batch)	54	52	53	52	211	Audit	211	20	08	239
Credits Under Choice Based Credit Grading Scheme (CBCGS-H UoM- 2016-20 Batch)	54	52	53	52	211	Audit	211	-	08	219

A Bright Future Awaits You through TCET-Autonomy Scheme-2019

Join us for a pathbreaking career in the field of Engineering!!

Admissions are open for Undergraduate(UG) and Postgraduate(PG) Programmes

Why TCET?

- ✦ Autonomous Status for 10 Years w.e.f. A.Y. 2019-20
- ✦ One of the most sought after Placement destinations
- ✦ Unique center of training for pioneering industries and Defense Services
- ✦ Special counseling cell to pursue Higher Studies in India or abroad
- ✦ More than 100+ Industry and Institute liaison

What TCET Offers YOU?

- ✦ Cutting-edge Curriculum focused on Industry & Research needs with Innovative Teaching Learning Methodology
- ✦ Two specialization Courses in emerging technology areas offered by each department
- ✦ Panoramic blend of academic and industry meets for domain research
- ✦ Holistic approach for lifelong learning with Employability Skill Enhancement Curriculum

Employability Skill Enhancement Programme (1200 hrs. duration) **(960 hrs. Professional Training + 240 hrs. Internship)**

Professional Skill Development Curriculum with **Project Based Learning(PBL)** experience of 480 hrs. duration

Advanced Skill Development(Industry Specific) Curriculum with **Industry Based Learning(IBL)** experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors

Research Oriented Curriculum with **Research Based Learning(RBL)** experience of 120 hrs. duration leading to higher studies in the emerging research areas

Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through **Activity Based Learning (ABL)** experience of 120 hrs. duration

Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

About TCET-Autonomy Scheme-2019

Choice Based Credit Grading System with Holistic Student Development (CBCGS-H 2019)

Thakur College of Engineering & Technology (TCET) since its inception has been instrumental in offering quality technical education to aspiring students through **System-Driven-Student-Centric approach**. In the last decade it has put its best efforts to focus on broad based education leading to holistic student development as per international graduate attributes. Based on our strengths, we are happy to share that, the University Grants Commission (UGC) has conferred "Autonomous Status" for 10 years to TCET under the revised UGC graded Autonomy Scheme 2018.

As per the mandate of UGC under Graded Autonomy Scheme, TCET aspires to strengthen its program offerings to make our budding Engineers **"Globally Competent, Locally Relevant and Skill Oriented"** through:

- Program Specific curricula with focus on research in the emerging areas of Engineering and Technology.
- Industry Specific/Industry Linked curricula through an "Employ ability Enhancement Scheme".
- All Round Personality Development model through its "Holistic Development Scheme".
- Extra ordinary Credits for National level Achievements, National level Competitive Exams, Standard Industrial Certifications and Major Contributions to the Society.
- Credits for specialized courses and online courses done through graded online MOOCS and other graded online courses offered by the department from time to time.

The Choice Based Credit Grading System for Holistic Student Development (CBCGS – H 2019) is based on AICTE Model Curriculum and UGC (Minimum standards of instruction for grant of First Degree through Formal Education) Regulations, 2003 Autonomy Scheme includes Scholastic, Co-Scholastic and Non-scholastic Credits which are Compulsory for every student. Additional Credits are assigned for the Student Achievers under Specialization (optional credits in Emerging Areas) and Achievers credits (National/International level).

The Under-Graduate(UG) and the Post-Graduate(PG) curricula have been designed with a thought of creating an inspiring Academic Culture in the institution, essential for teachers and students to access deeper knowledge and participate in its expansion and smooth transmission. The curricula also focus on to develop problem-solving skills in students and strengthen academic knowledge. The Doctoral Program will follow the UGC Guidelines/Norms from time to time.

The First Year (F.E.) proposed scheme is aligned with the Model Curriculum of AICTE which offers courses on Basic Sciences, Engineering Sciences along with Humanities which impart the fundamental importance of science to the students which could later be useful for Research in Applied Science and Engineering. The scheme also emphasizes on Professional Skills which includes Aptitude/Logic Building and Life/Presentation Skills. In addition to the above, the course also comprises of Activity Based Learning which focuses on Society Outreach Programs and Yoga Practices. This will help students to develop Aptitude and Positive Attitude in life.

The Second Year (S.E.) scheme includes Program Specific core subjects which would introduce students the core areas of the particular course giving them in-depth knowledge and form the basic foundation in them.

The Third Year (T.E.) scheme offers Domain Specific “Industry Electives” which meets current Industry demands and requirements. There is an enhancement in student’s knowledge which makes them abreast with the current technology.

The Final Year, Bachelor of Engineering (B.E.) scheme is aligned with Generalized Knowledge which is an important component of crystallized intelligence. It is done by offering them “Open Electives” which would help them to grow both at personal as well as academic level and develop an openness to experience and analyze situations for better solutions.

The impact of these can be seen under Project Based Learning (PBL), Activity Based Learning (ABL) and Research Based Learning (RBL) as students adopt these methodologies to do projects based on Technological Solutions or real-world scenarios.

Graded Course will be offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester maybe registered for certification under a faculty mentor.

The curriculum also focuses on promoting Holistic Student Development (HSD) which includes courses on Professional Skills which focus on Basic Technology Skills for Second Year, Industry / Research / Entrepreneurship Skills for Third and Final Year. PBL is common for S.E., T.E. and B.E. under HSD along with ABL (Co-curricular/ Extra-curricular/Extension) for S.E. students and RBL (Online/MOOCs) for T.E. and B.E. students. The students are also encouraged to take up Internships at core companies which would enhance their skills and make them competent to meet the current industry needs.

The Examination Scheme is also revised and redefined considering the pressure a student undergoes during examination. The proposed scheme includes Formative and Summative Evaluation methods which would help to foster development and improvement in students during the course and simultaneously be able to assess whether the results have been able to meet the set target. This system would be deployed systematically which would drastically reduce the burden on the students.

This scheme would help students to grow academically, professionally and holistically to become Globally Competent Professionals with Values.

(Dr. B. K. Mishra)

Principal

**Value Added Employability Skill Enhancement Programme(ESEP) offered by T&P Cell
(For E&TC, Electronics, Civil, MECH Branches-21st to 25th Week
during Summer & Winter Break)**

Sr. No.	Semester	Generic IT Skills		Industry Specific Skills	
		Course Code	Course	Course Code	Course
1	Sem I	GISPS01	Life / Presentation Skills	ISPS01	Life / Presentation Skills
2	Sem II	GISPS02	Aptitude / Logic Building	ISPS02	Aptitude / Logic Building
3	Sem III	GISPS03	Java / Python Programming	ISPS03	Programming Fundamentals using Python
4	Sem IV	GISPS04	Advanced Java / Python Programming	ISPS04	Object Oriented Programming using Python
5	Sem V	GISPS05	Web Development Skills	ISPS05	Data Structures and Algorithms using Python
6	Sem VI	GISPS06	MongoDB	ISPS06	DBMS and SQL
7	Sem VII	GISPS07	AngularJS, NodeJS	ISPS07	Mini Project
8	Sem VIII	GISPS08	Cloud Technology: AWS	ISPS08	Cloud Technology: AWS

* Above Courses/Subject under ESEP may change as per Industry needs from time to time

Interdisciplinary Specialization offerings through Self-Study Mode

- Interdisciplinary optional Specializations offered in Emerging Technology Areas through Self-Study Mode under Faculty Mentor
- Online Credit Transfer through graded NPTEL-MOOCs(SWAYAM portal) and other online graded courses offered by the departments.
- Students can acquire 20 credits in 2 to 3 years.
- Certificate shall be Awarded to successful candidates during “Degree Certificate Distribution Ceremony”

Dual Advantage through Specialization & Certification Courses for Non-IT & Non-Computer branches for Employment in IT Sector(Courses offered during Summer & Winter Break after semester II to VII)

**B.E(Electronics
Telecommunication)**
**B.E(Electronics
Engineering)**
**B.E(Mechanical
Engineering)**
B.E(Civil Engineering)



Employability Skill
Development
Offerings
by T&P Cell
As per
TCET-Autonomy
Scheme
(Winter & Summer)



Specialization in
Computer/IT
(Self-Study
graded Courses
offered through
online portals)




B.E (E&TC/ELEX/
MECH/CIVIL)
with Specialization
and certification in
Computer/IT

Value Addition through Professional Training and Internship Under Employability Skill Enhancement Programme(ESEP)*

Offerings Semester	Professional Skills Training	Project Based Learning	Research Based Learning	Activity Based Learning
Semester I	Professional Skills – I : Life Skills/ Presentation Skills using MS-Power Point and Excel			ABL1- Yoga Practice - I/ Society Outreach - I
Semester II	Professional Skills – II : Aptitude and Logic Building			ABL 2 - Yoga Practice - II/ Society Outreach - II
Semester III	Professional Skills – III: Object Oriented Programming using Java	Project Based Learning-I: Mini Project using Java programming /SQL server.		ABL3 - Co-curricular /Extra curricular/Extension
	Object Oriented Programming using Advanced Java (industry specific skills will be offered during 21 st and 25 th week) by T&P			
Semester IV	Professional Skills – IV: Introduction to Python Programming	Project Based Learning-II: Mini Project using Python programming / Java network programming/ OpenGL.		ABL 4 - Co-curricular /Extra curricular/Extension
	Advanced Python Programming (industry specific skills will be offered during 21 st and 25 th week) by T&P			
Semester V	Professional Skills – V: Web Development using JavaScript, JQuery, PHP	Project Based Learning -III: Minor projects using Advanced Web/ Development Technologies & Application Development for Smart Phones	Research Based Learning-I: Research based projects using professional electives/publication in conference	
	Advanced Web Development (industry specific skills will be offered during 21 st and 25 th week) by T&P			
Semester VI	Professional Skills – VI: DevOps: GitHub, Jenkins, Selenium	Project based Learning-IV Industry Specific Campus Connect Programmes offered by TCS, Infosys and Accenture	Research Based Learning-II: Research based projects using professional electives/ publication in conference	
	MongoDB, DBMS, MySQL (industry specific skills will be offered during 21 st and 25 th week) by T&P			
Semester VII	Professional Skills – VII: High end skills as per Industry requirements offered through T&P during 21 st and 25 th week.	Industry Specific Campus Connect Programmes offered by TCS, Infosys and Accenture	Research Based Learning-III: Research based projects using professional electives/major projects/publication in journals.	
Semester VIII	Professional Skills – VIII: High end skills as per Industry requirements offered through T&P during 21 st and 25 th week.	Industry Specific Campus Connect Programmes offered by TCS, Infosys and Accenture	Research Based Learning-IV: Research based projects using professional electives/major projects/publication in journals.	

* Above Courses/Subject under ESEP may change as per Industry needs from time to time

The Department of Engineering Sciences and Humanities is committed to provide a strong foundation to fresh entrants and prepare them to broaden their perspective in engineering and technology, keeping in mind the humanistic approach. It believes CBCGS-H 2019 scheme is a step toward preparing globally competent locally relevant skilled professionals. The department faculty members deploy this scheme for the benefit of students.

Degree/Programme	Value-Addition Under TCET-Autonomy Scheme
 F.E(Common to all Branches)	Induction Training Programme of 90 hrs. for newly admitted students to explore their academic interests and activities, reduce competition and make them work for excellence, promote bonding within them, build relations between teachers and students, give a broader view of life and build character
	Professional Skill Development of 30 hrs. for life skills and presentation skills
	Professional Skill Development of 30 hrs. for aptitude and logic building
	Activity Based Learning-I of 30 hrs. in the form of societal outreach and yoga practices
	Activity Based Learning-II of 30 hrs. in the form of societal outreach and yoga practices

Courses offered during semester I and semester II of first year Engineering

Basic Science Course	Engineering Science Course
1) Physics 2) Chemistry 3) Mathematics - I 4) Mathematics - II	1) Basic Electrical Engineering 2) Engineering Graphics & Design 3) Programming for Problem Solving 4) Engineering Mechanics 5) Workshop/Manufacturing Practices - I 6) Workshop/Manufacturing Practices - II
Humanities and Social Sciences including Management courses	
English for Professional Communication	

Other offerings by ES&H Department Professional body Chapter	
1) National Service Scheme (NSS)	3) Indian Society of Technical Education (ISTE)
2) Extension Wing Team (EWT)	4) TCET Model United Nation (TCET-MUN)

TCET
F.E Semester-I
(Common to Civil Engineering/Computer Engineering/Electronics Engineering BRANCHES)
Choice Based Credit Grading System with Holistic Student Development (CBCGS-H 2019)
Under TCET-Autonomy Scheme-2019

Course Description				Teaching Scheme (Academic)					Examination Scheme (Academic)					
				Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment/Evaluation					
Sr. No.	Course Code	Category	Course Title	Hours Per Week					Theory (100/50*)		Practical/Oral/ Presentation(25)	Term Work (25)	Total	
				Hours PerWeek			Contact Hours	Credits	IA	ESE	PR / OR	TW		
				Theory	Tutorial	Practical								
1	BSC101	BS	Physics	3	1	2	6	5	25	75	25	25	150	
2	BSC103	BS	Mathematics-I	4	1	-	5	5	25	75	-	25	125	
3	ESC101	ES	Basic Electrical Engineering	3	1	2	6	5	25	75	25	25	150	
4	ESC102	ES	Engineering Graphics & Design	2	-	4	6	4	25	75	25	25	150	
5	ESC105	ES	Workshop/Manufacturing Practices-I	1	-	2	3	2	15	35	25	-	75	
			Total	13	3	10	26	21	Total marks (Academic)				650	
Course Description				Non Credit Mandatory Course								Report		
1	MC101	MC	Induction Training Program	2	-	-	2	(Non-credit)	Passing is mandatory for this course			25	-	
Course Description				Teaching scheme (Holistic Student Development-HSD)					Presentation			Report		
1	BSPS I	HSD	Professional Skills-I (Life / Presentation Skills)	-	-	2	2	1	-	-	50	25	75	
2	BSABL I	HSD	Activity Based Learning-I (Yoga Practice& Society Outreach-I)	-	-	2	2	1	-	-	50	25	75	
			Total	-	-	4	4	2	Total marks (HSD)				150	
Total				15	3	14	30+2 = 32	23	Grand Total marks:				800	

- For effective conduct, Induction training program will be conducted for one week before the start of first semester and 2 weeks during the semester with regular timetable.
- Theory 25 marks of IA will be conducted for 1.5 hours and 15 marks of IA will be conducted for 1 hour whereas 75 marks of ESE will be conducted for 3 hours and 35 marks of ESE will be conducted for 2 hours and *50 marks of theory will be conducted in the subject of Workshop/Manufacturing Practices-I.
- IA – In-Semester Assessment, ESE – End Semester Examination, PR –Practical Examination, OR-Oral Examination.

TCET
F.E Semester-II
(Common to Civil Engineering/Computer Engineering/Electronics Engineering BRANCHES)
Choice Based Credit Grading System with Holistic Student Development (CBCGS-H 2019)
Under TCET-Autonomy Scheme-2019

Course Description				Teaching Scheme (Academic)					Examination scheme (Academic)				
				Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment/Evaluation				
Sr. No.	Course Code	Category	Course Title	Hours Per Week					Theory (100)		Practical/Oral/ Presentation(25)	Term Work (25)	Total
				HoursPer Week			Contact Hours	Credits	IA	ESE	PR / OR	TW	
				Theory	Tutorial	Practical							
1	BSC102	BS	Chemistry	3	1	2	6	5	25	75	25	25	150
2	BSC104	BS	Mathematics-II	3	1	-	4	4	25	75	-	25	125
3	ESC103	ES	Programming for Problem Solving	3	-	2	5	4	25	75	25	25	150
4	ESC104	ES	Engineering Mechanics	3	-	2	5	4	25	75	-	25	125
5	ESC106	ES	Workshop/Manufacturing Practices-II	-	-	2	2	1	-	-	25	-	25
6	HSMC101	HSMC	English for Professional Communication	2	-	2	4	3	25	75	25	-	125
			Total	14	2	10	26	21	Total marks (Academic)				700
Course Description				Teaching scheme (Holistic Student Development- HSD)					Presentation			Report	
1	BSPS II	HSD	Professional Skills-II# (Aptitude / Logic Building)	-	-	2	2	1	-	-	50	25	75
2	BSABL II	HSD	Activity Based Learning-II(Yoga Practice& Society Outreach-II)	-	-	2	2	1	-	-	50	25	75
			Total	-	-	4	4	2	Total marks (HSD)				150
Total				14	2	14	30	23	Grand Total marks:				850

- For effective conduct, Induction training program will be conducted for one week before the start of first semester and 2 weeks during the semester with regular timetable.
- Theory 25 marks of IA will be conducted for 1.5 hours and 15 marks of IA will be conducted for 1 hour whereas 75 marks of ESE will be conducted for 3 hours and 35 marks of ESE will be conducted for 2 hours and *50 marks of theory will be conducted in the subject of Workshop/Manufacturing Practices-I.
- IA – In-Semester Assessment, ESE – End Semester Examination, PR –Practical Examination, OR-Oral Examination.
- #Professional Skill - I (Aptitude/Logic Building) will be conducted in the form of Integrated theory/practice(ITP)

TCET
F.E Semester-I
(Common to Mechanical Engineering/Information Technology Electronics Telecommunication Branches)
Choice Based Credit Grading System with Holistic Student Development (CBCGS-H 2019)
Under TCET-Autonomy Scheme-2019

Course Description				Teaching Scheme (Academic)					Examination scheme (Academic)				
				Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment/Evaluation				
Sr. No.	Course Code	Category	Course Title	Hours Per Week					Theory (100/50*)		Practical/Oral/ Presentation(25)	Term Work (25)	Total
				Hours Per Week			Contact Hours	Credits	IA	ESE	PR / OR	TW	
				Theory	Tutorial	Practical							
1	BSC102	BS	Chemistry	3	1	2	6	5	25	75	25	25	150
2	BSC103	BS	Mathematics-I	4	1	-	5	5	25	75	-	25	125
3	ESC103	ES	Programming for Problem Solving	3	-	2	5	4	25	75	25	25	150
4	ESC102	ES	Engineering Graphics & Design	2	-	4	6	4	25	75	25	25	150
5	ESC105	ES	Workshop/Manufacturing Practices-I	1	-	2	3	2	15	35	25	-	75
			Total	13	2	10	25	20	Total marks (Academic)				650
Course Description				Non Credit Mandatory Course								Report	
1	MC101	MC	Induction Training Program	2	-	-	2	(Non-credit)	Passing is mandatory for this course			25	-
Course Description				Teaching scheme (Holistic Student Development-HSD)					Presentation			Report	
1	BSPS I	HSD	Professional Skills-I# (Aptitude / Logic Building)	-	-	2	2	1	-	-	50	25	75
2	BSABL I	HSD	Activity Based Learning-I (Yoga Practice& Society Outreach-I)	-	-	2	2	1	-	-	50	25	75
			Total	-	-	4	4	2	Total marks (HSD)				150
Total				15	2	14	29 + 2 = 31	22	Grand Total marks:				800

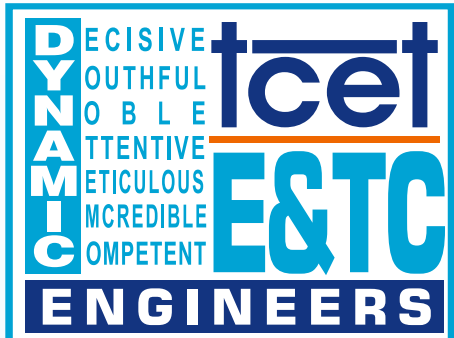
- For effective conduct, Induction training program will be conducted for one week before the start of first semester and 2 weeks during the semester with regular timetable.
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- IA – In-Semester Assessment, ESE – End Semester Examination, PR –Practical Examination, OR-Oral Examination. Professional Skills-I
- #Professional Skill - I (Aptitude/Logic Building) will be conducted in the form of Integrated theory/practice(ITP)

TCET
F.E Semester-II
(Common to Mechanical Engineering/Information Technology Electronics Telecommunication Branches)
Choice Based Credit Grading System with Holistic Student Development (CBCGS-H 2019)
Under TCET-Autonomy Scheme-2019

Course Description				Teaching Scheme (Academic)					Examination scheme (Academic)				
				Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Sr. No.	Course Code	Category	Course Title	Hours Per Week					Theory (100)		Practical/Oral/ Presentation (25)	Term Work (25)	Total
				Hours Per Week			Contact Hours	Credits	IA	ESE	PR / OR	TW	
				Theory	Tutorial	Practical							
1	BSC101	BS	Physics	3	1	2	6	5	25	75	25	25	150
2	BSC104	BS	Mathematics-II	3	1	-	4	4	25	75	-	25	125
3	ESC101	ES	Basic Electrical Engineering	3	1	2	6	5	25	75	25	25	150
4	ESC104	ES	Engineering Mechanics	3	-	2	5	4	25	75	-	25	125
5	ESC106	ES	Workshop/Manufacturing Practices-II	-	-	2	2	1	-	-	25	-	25
6	HSMC101	HSMC	English for Professional Communication	2	-	2	4	3	25	75	25	-	125
			Total	14	3	10	27	22	Total marks (Academic)				700
Course Description				Teaching scheme (Holistic Student Development- HSD)					Presentation			Report	
1	BSPS II	HSD	Professional Skills-II (Life / Presentation Skills)	-	-	2	2	1	-	-	50	25	75
2	BSABL II	HSD	Activity Based Learning- II (Yoga Practice & Society Outreach-II)	-	-	2	2	1	-	-	50	25	75
			Total	-	-	4	4	2	Total marks (HSD)				150
Total				14	3	14	31	24	Grand Total marks:				850

- For effective conduct, Induction training program will be conducted for one week before the start of first semester and 2 weeks during the semester with regular timetable.
- Theory 25 marks of IA will be conducted for 1.5 hours and 15 marks of IA will be conducted for 1 hour whereas 75 marks of ESE will be conducted for 3 hours and 35 marks of ESE will be conducted for 2 hours and *50 marks of theory will be conducted in the subject of Workshop/Manufacturing Practices-I.
- IA – In-Semester Assessment, ESE – End Semester Examination, PR –Practical Examination, OR-Oral Examination.

The Department of Electronics & Telecommunication Engineering envisions developing internationally competent professionals with a sense of responsibility and social sensitivity. It believes that the CBCGS-H 2019 scheme is learner-centric & the Faculty members will deploy the scheme for the benefit of students at large.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Electronics & Telecommunication Engineering)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Specialization & Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)




Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Wireless Communication - Interdisciplinary)

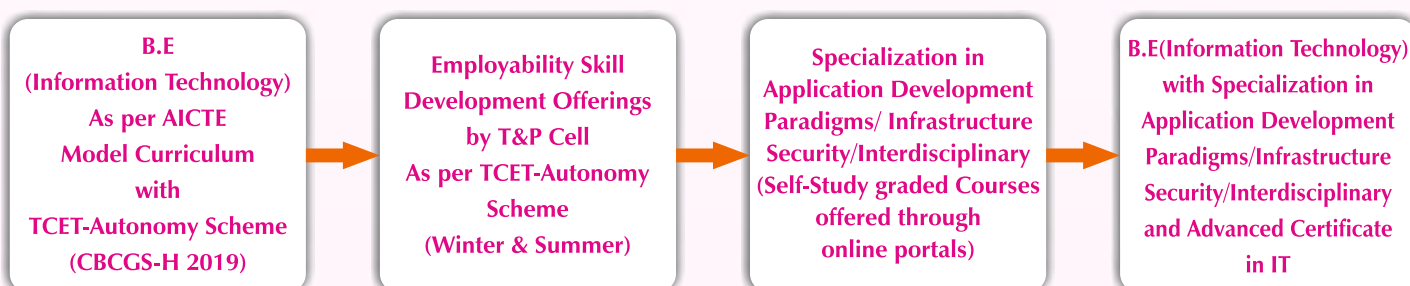
Specialization-II (IOT Specialization - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.

The Department of Information Technology is Committed to maintain active academic and research culture by inculcating professional and problem solving skills through innovation and new technologies. It believes that CBCGS-H 2019 scheme is design to be learner centric and faculty members will implement the scheme by providing wide spectrum of options to the students to pursue their interest.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Information Technology)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Advanced Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)



Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Application Development Paradigms - Interdisciplinary)

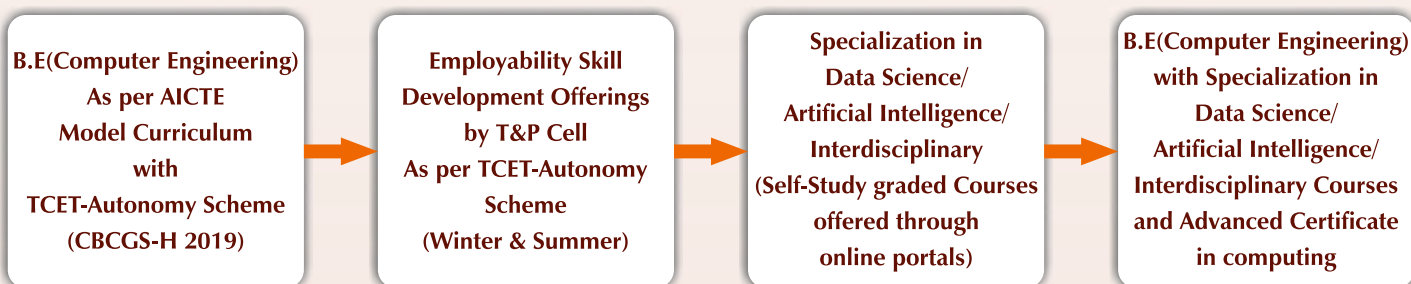
Specialization-II (Infrastructure Security - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.

The Department of Computer Engineering is committed to nurture budding Engineers to become global professionals with social sensitivity. It believes that the CBCGS-H 2019 scheme is learner-centric & the Faculty members will deploy the scheme for the benefit of students at large.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Computer Engineering)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Advanced Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)



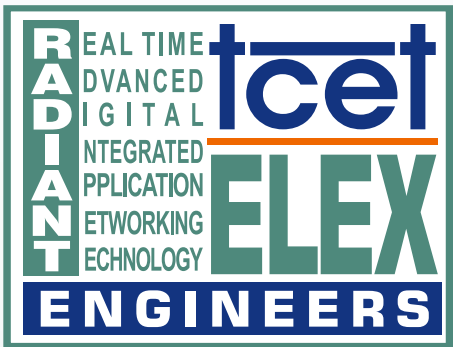
Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Artificial Intelligence - Interdisciplinary)

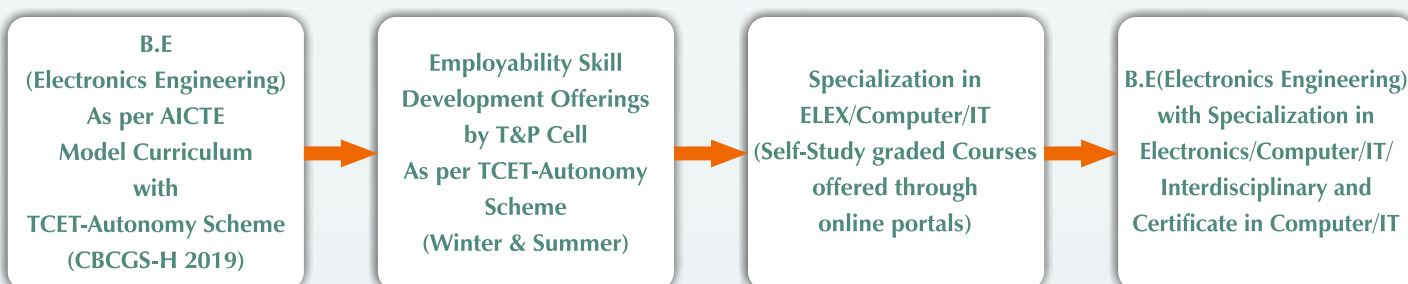
Specialization-II (Data Science - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.

The Department of Electronics Engineering is committed to develop socially sensitive and competent engineers with a zeal to succeed globally. It believes that the CBCGS-H 2019 scheme is learner-centric & the Faculty members will deploy the scheme for the benefit of students at large.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Electronics Engineering)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Specialization & Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)



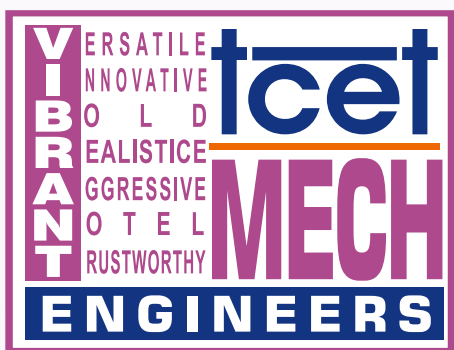
Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Very Large Scale Integration (VLSI) - Interdisciplinary)

Specialization-II (Industrial Automation (IA) - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.

The mechanical Engineering Dept is dedicated to be recognised globally with its innovation, entrepreneurial and research skills to serve the dynamic needs of society and industry by deploying the autonomy scheme for the academic and holistic development of the students.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Mechanical Engineering)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Specialization & Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)




Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Industry 4.0 Practices - Interdisciplinary)

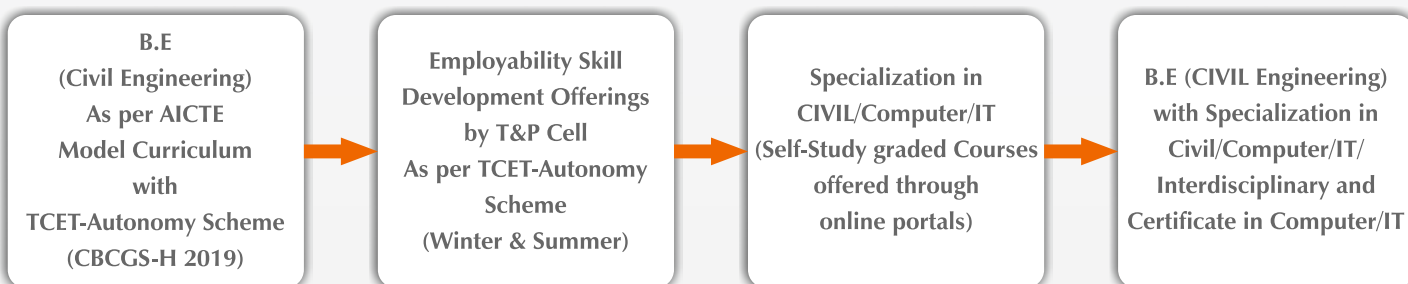
Specialization-II (Product Design & Development - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.

The Department of Civil Engineering is dedicated to educate budding Civil Engineers with Advanced Skills in several areas through the CBCGS-H 2019 scheme and proficient faculty members will emplace the scheme for enhancement of students.

Degree/Programme	Employability Skill Enhancement Programme (1200 hrs. duration) (960 hrs. Professional Training + 240 hrs. Internship)
 B.E(Civil Engineering)	Professional Skill Development Curriculum with Project Based Learning(PBL) experience of 480 hrs. duration
	Advanced Skill Development(Industry Specific) Curriculum with Industry Based Learning(IBL) experience during Winter of 240 hrs. duration leading to employment in IT & Service Sectors
	Research Oriented Curriculum with Research Based Learning (RBL) experience of 120 hrs. duration leading to higher studies in the emerging research areas
	Personality Development Curriculum with Society Outreach/ Extension & Co/Extra-Curricular through Activity Based Learning (ABL) experience of 120 hrs. duration
	Summer Internship (In-house/Out-house)/Professional Training Curriculum of 6 to 8 weeks duration (240 to 320 hrs.) leading to exposure to the Industrial Environment as per AICTE Internship Scheme

Dual Advantage Specialization & Certification Courses in Emerging Technology Areas (Courses offered during Summer & Winter Break after semester II to VII)



Additional Specialization in Emerging Technology Areas (Optional)

Specialization-I (Smart Infrastructure - Interdisciplinary)

Specialization-II (Structural Engineering - Interdisciplinary)

Graded Course offered through Self-Study Mode & Online Credit Transfer through NPTEL-MOOCs (SWAYAM portal) & graded courses offered through other portals like Coursera, Udemy etc. The students should opt for online graded courses offered by the Department from time to time. One course per semester may be registered for certification under a faculty mentor.



The Post Graduate Department of Computer Engineering, Information Technology and Electronics & Telecommunication are committed to create an academic environment that enriches the students knowledge with emphasis on research and development, innovation, entrepreneurial skills and domain knowledge across multiple areas.

Degree/Programme	Value Addition (Under TCET-Autonomy Scheme) (210 hrs.)
Master of Engineering M.E(Computer Engineering) As per AICTE Model Curriculum	Professional Skills(Industry Specific) with Technical Seminar on Emerging Research Trends
	Professional Skills(Industry Specific) with Technology Workshops on Industry Practices
Master of Engineering M.E(InfomationTechnology) As per AICTE Model Curriculum	Research & Development through Advanced Research Based Learning(RBL) with Experiential Learning through Engineering Colloquium for Paper Writing in International Conference and Journals
	Research & Development through Advanced Research Based Learning(RBL) through Industry relevant Case studies and participation in technical conference
Master of Engineering M.E(Electronics & Telecommunication) As per AICTE Model Curriculum	Personality Development through Activity Based Learning(ABL) through Society Outreach/ Extension Programs Co-curricular / Extracurricular Programs

Additional Specialization in Emerging Technology Areas

M.E(Computer Engineering)

- 1) Data Science
- 2) Internet of Things

M.E(Information Technology)

- 1) Data Science
- 2) Information Security
- 3) Internet of Things
- 4) Blockchain

M.E(Electronics & Telecommunication)

- 1) Communication Engineering
- 2) Signal Processing

Value Added Program for M.E (Non Credit Course) Offered through Self-Study Mode during Semester / Winter Break

Offerings Semester	Professional Skills (Industry Specific)	Research & Development through Advanced Research Based Learning(RBL)	Personality Development through Activity Based Learning(ABL)
I	Professional Skills- I : Technical Seminar on Emerging Research Trends Professional Skills- II : Technology Workshops on Industry Practices		Activity Based Learning I: Society Outreach/ Extension Programs
II		Research Based Learning -I Experiential Learning through Engineering Colloquium for Paper Writing in International Conference and Journals	Activity Based Learning II: Co-curricular / Extracurricular Programs
III		Research Based Learning -II Case Study	
IV		Research Based Learning -III Paper Publication in International Journal	

Ph.D. Department Profile

ABOUT Ph.D. RESEARCH CENTRE

Research plays a vital role in the success of any institution. Fundamental research in the field of engineering is a national challenge. Quality research in technology is the need of the hour for sustainable growth. Thakur College of Engineering and Technology (TCET) since its establishment, has a culture of nurturing research abilities at undergraduate and postgraduate level. Pursuing research leading to Ph. D. degree is both challenging and rewarding experience.

Therefore, TCET has started Ph.D. (Technology) Research Centre of University of Mumbai (UOM) from the current academic year (A.Y.2014-15). It offers research program leading to the Ph. D. (Technology) Degree in Electronics & Telecommunication Engineering, Computer Engineering & IT of UOM. Presently 10 seats are offered and it involves course work and other requirements as per university rules/guidelines.

In order to provide a strong platform to the researchers, academicians and scholars, TCET regularly organizes various national and international conferences, seminars, workshops and colloquium. These initiatives enable the stakeholders to build their capacity for critical examination and sound judgment, thereby facilitating them to contribute to the existing body of knowledge.

List of Ph.D. Guides

Sr. No.	Branch	Name	Designation
1	E&TC	Dr.B.K.Mishra	Professor; Principal
2	E&TC	Dr.R.R.Sedamkar	Professor; Dean (Academic)
3	E&TC	Dr.Lochan Jolly	Professor; Dean (Student & Staff Welfare)
4	E&TC	Dr.Sandhya Save	Professor; HOD (ELEX)
5	E&TC	Dr.Rajesh Bansode	Professor; HOD (IT)
6	E&TC	Dr.Vinitkumar Dongre	Professor; HOD (E&TC)
7	COMP	Dr.R.R.Sedamkar	Professor; Dean (Academic)
8	COMP	Dr.Deven Shah	Professor; Vice-Principal
9	COMP	Dr.Sheetal Rathi	Associate Professor; HOD (COMP)
10	IT	Dr.B.K.Mishra	Professor; Principal
11	IT	Dr.Deven Shah	Professor; Vice-Principal
12	IT	Dr. Kamal Shah	Professor; Dean (R&D)
13	IT	Dr.Rajesh Bansode	Professor; HOD (IT)

Key Facilities

- ❖ Well equipped research laboratories for programme specific research.
- ❖ Well stacked Library with e-resources and on-line subscriptions.
- ❖ Extended facility to carry out research/consultancy.
- ❖ Active support for converting research outcomes in to products/petent.

Best Practices

- ❖ Fostering and promoting research culture through publications in reputed/indexed journals.
- ❖ Research Projects in collaboration with industry and research organization.
- ❖ Teaching assistantship for deserving & needy student.
- ❖ Timely completion of course and thesis.

INSTITUTES MANAGED BY



THAKUR EDUCATION GROUP



Thakur Vidya Mandir
High School & Junior College
(1990)



Thakur College of
Science & Commerce
(1992)



Thakur Polytechnic
(1998)



Thakur College of
Engineering and Technology
(2001)



Thakur Institute of
Management Studies, C D and R
(2001)



Thakur Institute
of Career Advancement
(2001)



Thakur Institute of
Management Studies & Research
(2002)



Thakur Public School
(2003)



Thakur Toonskool
Advanced Animation Academy
(2005)



Thakur Institute of
Aviation Technology
(2006)



Thakur Shyamnarayan College of
Education and Research
(2007)



Thakur International School
(2008)



Thakur Shyamnarayan
High School (English Medium)
(2013)



Thakur School of
Architecture & Planning
(2014)



Thakur Vidya Mandir
Global School (Azamgarh, U.P.)
(2016)



Thakur College of Science
(2016)



Thakur Ramnarayan College of
Arts & Commerce
(2017)



Thakur Ramnarayan
College of Law
(2018)

