STUDENTS HANDBOOK
2018-19

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI COLLEGE OF ENGINEERING

CHEMPERI, KANNUR-670632

PH: 0460 2213399 / 2212240

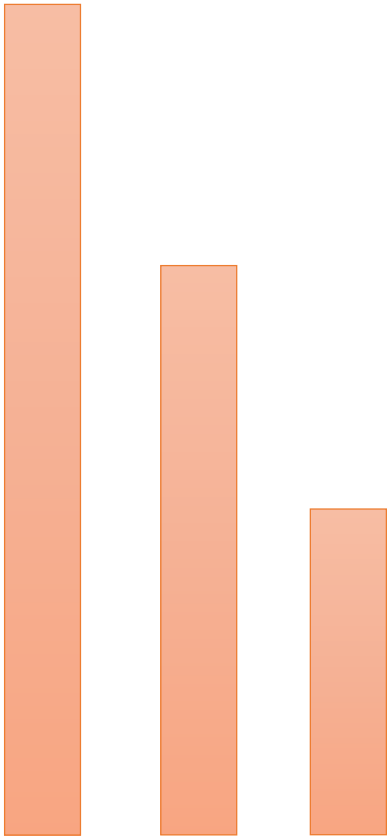**website: www.vjec.ac.in**

STUDENTS HANDBOOK
2018-19

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI COLLEGE OF ENGINEERING

CHEMPERI, KANNUR-670632

PH: 0460 2213399 / 2212240

website: www.vjec.ac.in

STUDENTS HANDBOOK 2018-19

CONTENTS

IMPORTANT CONTACT NUMBERS	
Office	0460 2212240, 2213399, 2213512
Fr.Dr.Thomas Melvettath (Chairman)	9447853524
Dr.Benny Joseph (Principal)	9048292767
Fr.Jinu (Administrator)	9447373415
Fr.George (Bursar)	9747444420
Mr.Biju Mathew (HOD CE)	9847436426
Fr.Bipin (Santhom Boy's hostel warden)	9645408161
Fr.Vipin (Sanjose Boy's hostel warden)	9745698949
Sr.Valsa (Holycross Girl's hostel warden)	0460 2212942
Sr. Rosamma (St.Alphonsa Girl's hostel warden)	9497250420

ABOUT THE COLLEGE

Vimal Jyothi Engineering College (VJEC) is an educational project of the Archdiocese of Thallassery established in the year 2002 and is managed by Meshar Diocesan Educational Trust. The college is approved by AICTE and affiliated to APJ Abdul Kalam Technological University (KTU). VJEC is a self-financing catholic minority institution aiming at generating a fervor for Engineering and Technology in students. Here we inspire, nurture and foster them to realize their career potential in the field of Engineering and Technology.

With profound insight into the resource requirements of the higher education system, VJEC has proudly set up world-class infrastructure complemented with intellectual capital in the form of competent faculty. Many of the facilities are way beyond the regulatory requirements aiming for learning beyond the syllabus to address the requirements of the industry. These material facilities along with value addition programs and student support systems are the integral facets of empowerment at VJEC.

Digital library, industry supported project labs, language lab, and student chapters of professional bodies such as IEI, ISTE, IEEE, ISOI, IETE, SAE, CSI offer an extensive range of resources, opportunities and services to the outcome based teaching learning process. Effective implementation of quality control processes ensure Engineering graduates with the expected level of knowledge, skill and attitude.

VISION

To bloom into a Center of Excellence for Technical Education and a pace-setter in rural India with its quality processes and procedures, interwoven with freedom of flexibility, moulding professionals of superior quality, dedicated to the progress and development of Humanity.

MISSION

To prepare the students to see beyond geographical limit and belong to a new age of acquisition and application of technology to meet the challenges of the changing world. Inspired and guided by gospel values, we contribute to the socioeconomic welfare of the country with due concern to the marginalized.

QUALITY POLICY

VJEC is committed to provide quality education in engineering and technology, to transform the youth into committed technical personal for the social and economical well being of the nation with integral development of the personality and character building.

MOTTO

"Where Perfection is the Tradition"

Undergraduate Programs (UG):

Sl.No.	Branch	Seats	Duration
1	Applied Electronics & Instrumentation Engineering	30	4 years
2	Civil Engineering	120	4 years
3	Computer Science & Engineering	120*	4 years
4	Electrical & Electronics Engineering	60	4 years
5	Electronics & Communication Engineering	90	4 years
6	Mechanical Engineering	120	4 years

Post Graduate Programs (PG)

Sl.No	Branch	Seats	Duration
1	Control & Instrumentation (AEI)	24	2 years
2	Communication Engineering & Signal Processing (ECE)	24	2 years
3	Computer Science & Engineering (CSE)	24	2 years
4	Power Electronics (EEE)	24	2 years
5	Structural Engineering & Construction Management (CE)	24	2 years
6	Thermal Engineering (ME)	24	2 years

WORKING HOURS

Section	From	To
Classes	9.00 am	4.10 pm
College office	9.00 am	5.00 pm
Library	8.30 am	6.00 pm
Stationery store	8.45 am	4.10 pm
Canteen	7.30 am	5.00 pm

DEPARTMENT OF CIVIL ENGINEERING

The Civil Engineering department was established in the year 2010. The department has been imparting quality education to meet the technological advancement and industrial requirements. This has been made possible due to qualified and dedicated faculty, state of the art laboratories and infrastructure facilities.

VISION OF THE DEPARTMENT

To be the fountain-head of quality education delivering civil engineers empowered with necessary knowledge, skill and personality who can lead the society towards sustainability.

MISSION OF THE DEPARTMENT

To provide a knowledge base of emerging technologies in all the areas of civil engineering.

- To promote innovative and critical thinking in the minds of budding engineers to face the challenges of future and thereby contribute to the growth of Science and Technology in partnership with industry.

- To shape the students as civil engineers with social obligations.

Program Educational Objectives (PEOs)

- Graduates will achieve broad and in-depth knowledge of Civil Engineering relating to industrial practices and research to analyze the practical problems and think creatively to generate innovative solutions using appropriate technologies.

- Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways appropriate to their discipline.

- Graduates will sustain intellectual curiosity and pursue lifelong learning not only in areas that are relevant to Civil engineering, but also that are important to society.

- Graduates will adapt to different roles and demonstrate leaderships in global working environment by respecting diversity, professionalism and ethical practices.

Program Outcomes (POs)

- Engineering Knowledge: Apply the knowledge of mathematics, science, engineering Fundamentals, and an engineering specialization to the solution of complex engineering problems.

- Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

- Design/ Development of Solutions: 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.

- Conduct Investigations of Complex Problems: 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.

- Modern Tool Usage: 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.

- The Engineer and Society: 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.

- Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

- Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

- Communication: 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.

- Project Management and Finance: 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.

- Life-long learning: 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.

Program Specific Outcome (PSOs)

- Graduates will have the ability to design a civil engineering system or process to meet the desired needs of the society.

- Graduates will have the ability to design and conduct experiments in various areas of civil engineering as well as analyze and interpret data.

PROGRAMS OFFERED

Under Graduate Programs (UG)

- ❖ B.Tech in Civil Engineering – 120 seats

Post Graduate Program (PG)

- ❖ M.Tech in Structural Engineering and Construction Management – 24 seats

LABORATORIES & FACILITIES

- Strength of material Lab
- Geotechnical Lab
- Survey Lab
- Design/CAD Lab
- Civil workshop

- Concrete Lab
- Environmental Lab
- Structural engineering Lab
- Virtual Reality lab

PROFESSIONAL BODIES

IEI

The Institution of Engineers (India), 8 Gokhale Road, Kolkata is the national organization of engineers in India. The Institution of Engineers (India) has more than one million members in 15 engineering disciplines in 114 centers or chapters in India and overseas; it is the world's largest multi-disciplinary engineering professional society in engineering and technology world. The Institution of Engineers (India) was established in 1920 in Kolkata, West Bengal. The Institution of Engineers (India) was incorporated by Royal Charter in 1935. The IEI conducts and sponsors technical meetings, conferences, and exhibitions all over India, publishes technical journals and provides continuing education as well as career advancement opportunities to its members.
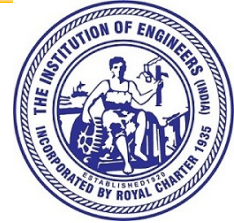
The Civil Department of VJEC has started student's chapter of The Institution of Engineers (India), with membership number AB/ECSC/670632/VJEC/CV on March 2017

ISTE

The Indian Society for Technical Education is a national, professional, non-profit making Society registered under the Societies Registration Act of 1860. First started in 1941 as the Association of Principals of Technical Institutions (APTI), it was converted into "Indian Society for Technical Education" in 1968 with a view to enlarge its activities to advance the cause of technological education in the country. ISTE has an Executive Council at National level. It has active membership of more than 97286 technical teachers, 5,66,466 student members, more than 2345 institutional members (including IITs, IISc.., NITs and other leading technical institutions), 1166 faculty chapters and 1280 students' chapters throughout the country. The major objective of the ISTE is to assist and contribute in the production and development of top quality professional engineers and technicians needed by the industries and other organizations

ISTE Student's chapter at Vimal Jyothi was inaugurated on 30th September 2014.

Go Green club

As an initiative to the National Mission for a Green India (GIM), The Ministry of Environment has approved annual plans for four states of the country. The National Executive Council (NEC) has given its nod to the Perspective Plans (PP) and Annual Plan of Operations (APOs) of Kerala, Mizoram, Manipur and Jharkhand. Kerala in the only state in the southern part of India, to be recognized, for Go Green Initiatives. It has become the need of the hour to have our share of creating awareness to save our environment for our future generation. Present students are the future flag holders for our Nation. Now, the seed we sow in them will become a good output to protect our environment and make our Nation proud. This Go Green Club of our college was inaugurated on 03-04-2017.

The Aim of our club is to motivate and encourage the students to value and assume responsibility of their Environment, to strengthen positive thinking and collaboration among students and to develop life skills like communication, interpersonal relationship, decision making, critical thinking and self management. The objectives of the club are to increase the students' knowledge about understanding the environment and environmental challenges, to create awareness about, energy usage and energy savings, to create the habit of Go Green, in the campus and in the society, through students, contribute to the International days and other activities organized by the College.

IEDC

VJ Inspire is the Innovation and Entrepreneurship Development Cell of Vimal Jyothi Engineering College. VJ Inspire is a 'not for profit' installation supported by a mentor network of academicians, industrialists, capitalists, technical specialists and managers established assisting the entrepreneurs from the idea stage to final product. We are providing a series of services to our students including Idea formulation, field survey, Idea validation, experimental modeling, Prototype building, Mentor network, Business and Strategic Planning , Market research and analysis, Sales strategy formation, digital Marketing and promotion, Financial planning, Human resource management, office establishment, tutoring , specialized workshops and training, Patents and IPRs, Legal and taxation issues, Lab facilities etc. All the services under VJ Inspire is free of cost.

> ### CAMPUS CODE OF CONDUCT

1.   Students are expected to maintain the highest standards of discipline and dignified manner of behavior inside as well as outside the College campus. They shall abide by the rules and regulations of the College and should act in a way that highlights the discipline and esteem of the College.

2.   All the students are expected to be seated in the class room/lab 5 minutes before the commencement of the class/lab. The first hour will begin with a prayer song which will be played through P.A System. The students shall stand in attention till the prayer ends. Those who are standing outside the classroom are also expected to follow this.

3. Late coming to the class, unauthorized absence, Dress code violations and Unauthorized absence on the reopening day after long vacation is not permitted.

As per the suggestions of the PTA meeting (16.01.17) the following measures to be implemented to discourage the students from repeating the above.

a. Late comers will be marked as absent in the class

b. For all the offenses mentioned above, first time oral warning will be given and for the second instance written warning will be given with a copy to the parent and on the third instance the parents to come to the college to discuss with the tutor and HoD about the ways and means to correct the student. However if the student is not coming with the parent/guardian within one month from the notice or if the student repeats the same offense again, he/she will be suspended from the college.

4. Students shall rise from their seats when the teacher enters the class room and shall remain standing till the teacher takes her/his seat or they are allowed to sit.

5. Teachers shall be greeted appropriately with "Good Morning Sir/Miss" or "Good Afternoon Sir/Miss" and a " Thank you Sir/Miss" when the teacher leaves the class room.

6. No student shall enter or leave the class room when the session is on without the permission of the teacher concerned.

7. Students having lab sessions in the FN or AN, have to report to the lab directly in time and they are not expected to go to the class room.

8. In the events of student seminars/project presentations etc., it is compulsory that all the students of the concerned class be present for the entire session.

9. Students can leave the campus during class hours only after getting a gate pass from the Principal/ HoD, or the tutor and after making entry in the Gate Register maintained by the gate keeper.

10. All students shall leave the classes immediately after the last hour. Students are not to stay back in the class room/lab beyond normal working hours unless there is special permission/special class.

11. No students shall wander or gather in verandah, corridor, and staircase etc. Canteen, coffee shop, stationary store and bank to be visited only during intervals and non-working hours. Unauthorized absence from the class will attract disciplinary action.

12. All leave applications (Regular & Medical) shall be submitted in time, for sanction by HoD and concerned teachers. Application for medical leave shall be accompanied by valid medical certificates.

13. Students shall come to the college in approved uniforms with formal shirts tucked into trousers with black belt and black shoes or semi covered chappels. Hawai type rubber or plastic chappals are not permitted. In addition, girl students will have a blazer over their shirts. Besides those who are in laboratories shall wear their respective lab-coats and safety shoes.

14.   Students shall be in the prescribed uniform from 8.30 AM to 4.30 PM on normal working days. Students travelling in the college bus shall be in uniform during the entire duration of travel.

15.   All the students are expected to attend all college functions in college uniform unless otherwise specified.

16.   All the students shall wear their identity cards, well displayed. Identity card is a public document and any teaching staff and non-teaching staff shall have the right to peruse it. Denial of that alone invites disciplinary action.

17.   Students planning to make pilgrimage to Sabarimala can avail relaxation in dress code by producing a letter of intention certified by their parent/guardian. The student will be issued with a permission token to be kept along with the ID card to be shown to the authorities on demand during the period of dress code relaxation. However in labs as per safety regulations the prescribed uniforms shall be worn.

18.   All kinds of tattooing, body piercing, hair styling and costumes that goes against the existing social norms and which could go against the spirit of VJEC academic values will be referred to the discipline committee.

19.   As per Government rules, students (both day- scholars & hostlers) are not permitted to use vehicles in the College Campus. Day-scholars shall park their vehicles in the designated places near the entrances.

20.   Students are expected to maintain silence in the academic buildings. Any deviant behaviour such as hooting, whistling, loitering etc. will be treated as an instance of indiscipline.

21.   For independent study, students are expected to use the class rooms, library or the demarcated areas of the academic building and shall not resort to sitting in staircases or circulation areas where they could interfere with the free movement.

22.   Students are encouraged to make use of the library, common computing facilities and to involve in professional body activities or any program authorized by the college beyond class hours. However under normal circumstances students shall retreat to their hostels or residences by 6.00PM.

23.   Access to academic buildings beyond the above timing and on holidays without written permission from the concerned HoD will be treated as a case of indiscipline.

24.   All the students are advised to follow the VJEC Mobile phone policy and bring to the notice of the authorities violations if any.

25.   Accessing Social Networking Sites such as Facebook, Twitter etc. is prohibited within the college campus, however access to these sites are permitted in hostel building during time slots specified by the hostel wardens.

26.   Keep the campus neat and clean. Do not put any waste anywhere in the campus except in the waste baskets kept.

27.   All the class rooms shall be kept neat and tidy, personal belongings such as shoes and lab coats shall not be stored in the class rooms.

28.   Consumption of intoxicants / psychotropic substances in any form or smoking or using chewing- gum, panmasala etc. are strictly prohibited.

29.   It is strongly advised to refrain from activities such as scribbling or noting on walls, door or furniture which could deface the college and destroy the academic ambiance.

30.   Carefully handle the furniture, equipment, fixtures and appliances of the college and lab. Careless handling/misuse of the above could result in personal injuries or damage to property Follow safety precautions near moving machines and electrical installations. In the event of damage of property, the responsible students will have to bear the cost of replacement/repair.

31.   Students are not permitted to arrange any unauthorized celebrations and decorations of any magnitude in the campus.

32.   Students are not permitted to distribute or display (both physically and electronically) material such as notices, banners, X'mas stars etc. in the campus without the permission of the competent authority.

33.   Students are expected to make use of academic, co-curricular and extracurricular facilities available to the optimum levels. This will certainly make them physically fit, academically competent, mentally alert and socially sensitive.

34.   Students who intend to represent the college in intercollegiate events shall take prior permission from the concerned head of the department and the selection will be based on parameters such as academic performance, attendance, character, existing academic pressure and competence of the student in the proposed event for participation.

35.   During internal examinations of 2 hour duration, students are not allowed to leave the hall within one hour from the beginning of the exam, and students have to occupy the seat 5 minutes before the commencement of the examination.

36.   Appearing in all the internal examinations is mandatory for all the students.

37.   Political activity in any form is not permitted in the College campus. Unauthorized meetings, propaganda work, processions or fund collections are forbidden within the College, hostels, and outside the college.

38.   Students shall comply with all the instructions of accompanying staff during industrial visits and educational tours. Any deviant behaviour during the college organized programs will attract disciplinary action.

39.   Harassing juniors, ill treating fellow students or any form of ragging is prohibited and liable to be treated as a criminal offence by the law enforcing agencies as per the directives of Hon'ble Supreme Court of India.

40.   Misbehavior towards girl students, use of threat or violence against members of the staff or fellow students will be considered as very serious cases of misconduct.

41.   Pay fees, mess bills etc. in advance or in time to avoid late fee.

42.	Any violation of the above rules will invite penalty in the form of warning, bringing of parents or any course of corrective measure as found suitable by any staff member or higher authority of the College.

43.	Expulsion from the College is enough for expulsion from the hostel.

44.	In case of any instance of noncompliance of existing rules or any observed matter/behavior that violates the code of conduct of VJEC, all the staff members are empowered to initiate disciplinary procedure by filling in a standard form which in turn may lead to the constitution of an enquiry committee and further proceedings.

Mobile Phone Policy

Realizing the importance of communication and the possible impact of mobile phone usage inside the campus, the following guidelines are arrived at. This policy is applicable to all those who enter the campus.

- Students are not permitted to use mobile phones within the campus.
- Students who are staying in college hostels should not bring the mobile phones to the college.
- Day scholars carrying mobile phones to the college shall deposit the same in the designated place before 8.55 AM and can collect the same after 4.10 PM.
- The mobile phones shall be kept in silent mode while depositing in the designated place.
- All the staff members are empowered to confiscate mobile phones found with students violating the above rules.
- The confiscated mobile phones will be returned to the students only after the completion of their course.

This policy is applicable to all students who enter the campus.

TUTORS AND BATCHES

Sl No	Class/Batch	Name of the faculty	Roll No. of students	Batch co-ordinator
1.	S1/S2 CE-A (2018-22 batch)	Ms. Anitha Babu	1-21	Ms. Anitha Babu
		Mr.Nitheesh K	22-40	
2.	S1/2 CE-B (2018-22 batch)	Mr. Aswin Joy	1-19	
		Ms.Anju EC	20-39	
3.	S3/S4 CE-A (2017-21 batch)	Mr. Logi.N.Boby	1-20	Dr Shika S
		Ms. Athira K	21-40	
		Asha Mary Jose	41-60	
4.	S3/S4 CE-B (2017-21 batch)	Mr. Rojin P	1-20	
		Ms.Prajisha V.P,	21-40	
		Dr Shika S	41-60	
5.	S5/S6 CE-A (2016-20 batch)	Mr.Udayakumar P.V	1-20	Ms. Theres Charly
		Ms. Theras Charly	21-40	
		Mr. George Zacharia	41-60	
6.	S5/S6 CE-B (2016-20 batch)	Ms. MeghaVijayan	1-20	
		Ms. Anuragi	21-40	
		Mr Saneesh K	41-60	
7.	S7/S8 CE-A (2015-19 batch)	Ms.Margaret Abraham	1-24	Mr Linjesh Sebastian
		Mr Ashay T.P	25-50	
8.	S7/S8 CE-B (2015-19 batch)	Mr. Linjesh Sebastian	1-24	
		Ms. Rona Mariya	25-50	

LABORATORIES & FACULTY/STAFF IN-CHARGE

Sl. No.	Name of Faculty	Name of lab staff	Name of laboratory
1.	Mr Abhijath I P	Mr. Vijeesh Cheriyan	Survey Lab & workshop
2	Mr Linjesh Sebastian	Ms. Neethu Thomas	Advanced Design Lab
3	Ms Megha Vijayan	Mr. Jins George	Strength of Material Lab
4	Ms. Asha Mary Jose	Mr. Jins George	Concrete Lab
5	Mr Saneesh K	Ms. Noisy Jose	Geotechnical Lab
6	Mr.Nitheesh K	Ms. Neethu Thomas	Transportation Lab
7	Ms. Prajisha V.P	Ms. Noisy Jose	Environment Lab
8	Mr. Akshay T P	Mr. Jins George	Structural engineering Lab
9	Ms.Rinnet Francis, Mr.Abhijath I P	Ms. Neethu Thomas	Virtual Reality Lab

INDUSTRIAL VISIT GUIDELINES

1. The students may go on industrial visit only when the dates are allotted for the same in the academic calendar.
2. Details of industries/technical/research organisation proposed to be visited shall be indicated in the tour program.
3. A detailed tour program schedule to be made for getting approval.
4. For each group of 20 students, one faculty from the same department preferably group tutor should accompany the students. If girl students are participating the tour, one lady faculty member from same department preferably tutor should accompany the team.
5. Industrial visit programs should be approved by Principal. The details of the accompanying faculty members should be mentioned in the approval request. The programs and schedule should be duly signed and recommended by both tutors and HOD will only be considered for approval by Principal.
6. Written consent of the parent is essential for all students who participate in tour.
7. Tour program proposal should include the distance, date of travel, detailed schedule, mode of travel with the contact details of responsible person, boarding and lodging details, list of students participating etc.
8. An agreement should be signed with the traveling agency/IV operator in the presence of Bursar.
9. Any behaviour of students during the industrial visit which violates the instructions of the accompanying staff and affect the safety of fellow students shall be treated as a major instance of indiscipline.

The proposals which do not satisfy the above mentioned guidelines will be rejected.

RAGGING

Ragging in any form is prohibited and any incidence of indulging in ragging will be reported to the police. Ragging is a non-bilable offence.

Ragging may also attract punishment under the existing laws of land.

Ragging constitutes one or more of any of the following acts:

i. Any conduct by any students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness to a fresher or any other student.
ii. Indulging in rowdy or undisciplined activities by any student or students which causes or is likely to cause annoyance, hardship, physical or psychological harm or to raise fear or apprehension thereof in any fresher or any other student.
iii. Asking any student to any act which such student will not in the ordinary course do and which has the effect of causing of generating a sense of shame, or torment of embarrassment thereof in any fresher or any other student.
iv. Any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or fresher.
v. Exploiting the service of a fresher or any other student for completing any task assigned to and individual or group of students
vi. Any act of financial extortion of forceful expenditure burden put on a fresher or any other student by students.

vii.   Any act of physical abuse including all variants of it – sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health of a person.

viii. Any act or abuse by spoken words, email, post, insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student.

ix.   Any act that affect the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.

A fresher means a student who has been admitted to an institution and who is undergoing his/her first year of study in such institution

Actions will be taken against student for indulging and abetting ragging depending upon the nature and gravity of the offence as established. The possible punishments for those found guilty of ragging at the institution level are any one or any combination of the following:

i.   Cancellation of admission
ii.   Suspension from attending the classes
iii. Withholding/withdrawing a scholarship and other benefits.
iv.   Debarring from appearing any test/examination or their evaluation process
v.   Withholding results
vi.   Debarring from representing the institution in any regional, national or international meet, tournament or any such competitions.
vii. Suspension/expulsion from the hostel
viii. Rustication from the institution for a period ranging from 1 to 4 semesters
ix.   Expulsion from the institution and consequent debarring from admission to any other institution.
x.   Collective punishment: when the persons committing or abetting the crime of ragging are not identified, the institution shall resort to collective punishment as a deterrent to ensure community pressure on the potential raggers.

FACULTY DETAILS 2018-19

Sl.No.	Name	Qualification	email id	Mobile no.
1	Dr. Benny Joseph	PhD - Civil Engineering M.Tech - Environmental Engineering	bennyjoseph@vjec.ac.in	
2	Biju Mathew	PhD - Civil Engineering M.Tech - Structural Engineering and Construction Management	bijupmathews@vjec.ac.in	9847436426
3	Prof.Dr.Vra.Saathappan	PhD - Civil Engineering M.Tech - Structural Engineering	drsaath@vjec.ac.in	9445659323
4	Dr.Shika S	PhD - Civil Engineering M.Tech - Environmental Engineering	shikasuren@vjec.ac.in	9495461711
5	Sigi Thomas	M.Tech - Environmental Engineering	sigithomasj@vjec.ac.in	9497609410
6	Megha Vijayan	M.Tech - Structural Engineering	meghavijayan@vjec.ac.in	9400811847
7	Lekshmi L	M.Tech - Structural Engineering	lekshmil@vjec.ac.in	9496370963
8	Anitha Babu	M.Tech - Construction Management	anithababu@vjec.ac.in	7736110753
9	Rona Maria P James	M.Tech - Structural Engineering	rona278@vjec.ac.in	9496578878
10	Linjesh Sebastian	M.Tech - Construction Management	linjesh@vjec.ac.in	8547881882
11	Margaret Abraham	M.Tech - Structural Engineering and Construction Management	margaret@vjec.ac.in	9633466204
12	Theres Charly	M.Tech - Environmental Engineering	therescharly@vjec.ac.in	9447492713
13	Logi N Boby	M.Tech - Coastal Management	logibobyabraham@vjec.ac.in	8086564842
14	Ashwin Joy	M.Tech - Environmental Engineering	ashwinjoy@vjec.ac.in	9037313630
15	Saneesh K	M.Tech - Environmental Geotechnology	saneeshkrish46@vjec.ac.in	9995655249

Sl.No.	Name	Qualification	email id	
16	Udayakumar P V	M.Tech - Marine Structures	ukpv1213@vjec.ac.in	7994153077
17	Prajisha V P	M.Tech - Environmental Engineering	prajisha@vjec.ac.in	9745734859
18	Anuragi P	M.Tech - Structural Engineering and Construction Management	anuragi@vjec.ac.in	8129884345
19	Nimisha P	M.Tech - Structural Engineering and Construction Management	nimisha@vjec.ac.in	9400859886
20	Abhijath I P	M.Tech - Remote sensing & GIS	abhijathip@vjec.ac.in	9747233264
21	George Zacharia	M.Tech - Structural Engineering	georgezacharia@vjec.ac.in	9633085660
22	Asha Mary Jose	M.Tech - Structural Engineering and Construction Management	ashamaryjose@vjec.ac.in	9497294711
23	Rinnet Francis	M.Tech - Remote sensing & GIS	rinnet@vjec.ac.in	9497420192
24	Dona Chacko	M.Tech - Structural Engineering	donachacko@vjec.ac.in	9447436961
25	Akshay T P	M.Tech - Structural Engineering	akshaynair@vjec.ac.in	8086804505
26	Athira K	M.Tech - Water Resources Engneering	athirak@vjec.ac.in	9847090922
27	Nitheesh K	M.Tech - Transportation Engineering	knitheesh@vjec.ac.in	9947157691
28	Hridya P	M.Tech - Geotechnical Engineering	hridyap94@vjec.ac.in	9496641477
29	Anju E C	M.Tech - Transportation Engineering	anjuec@vjec.ac.in	7559957050
30	Rojin P	M.Tech - Geotechnical Engineering	rojinp@vjec.ac.in	9496400516

**LAB STAFF DETAILS 2018-19**			
Sl.No	Name	Qualification	email id
1	Vijesh Cheriyan	ITC	vijeshvimal@vjec.ac.in
2	Jins George	ITC, BA, Diploma in Autocad	jinsgeorge@vjec.ac.in
3	Noisy Jose	ITC,BTH, Diploma in intrerior design	noisyjose@vjec.ac.in
4	Neethu Thomas	ITC, Diploma in Autocad	neethuthomas@vjec.ac.in

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
ACADEMIC CALENDAR 2018-19

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER
1	Sunday	1	Commencement of M1 & M3 M.Tech classes	1		1		1	M1 & M3 M.Tech IA3, RA–S3,S5,S7 B.Tech IA3	1	
2		2		2	Sunday	2	Gandhi Jayanti	2	S1 B.Tech IA4, M1 & M3 M.Tech IA3	2	Sunday
3	St.Thomas Day Holiday	3		3		3		3	S1 B.Tech IA4, M1 & M3 M.Tech IA4	3	
4		4	1st Class/Course Committee Meeting M.Tech M1 & M3	4		4	Last date for submission of S5 Design Project report	4	Sunday	4	
5		5	Sunday	5	RA S1 B.Tech IA1	5	RA – S1 B.Tech 2nd IA	5	S1 B.Tech IA4, 3rd Class Committee Meeting M.Tech M1 & M3	5	
6		6		6		6	Final evaluation of S5 Design Project	6	Deepavali	6	
7		7	Publication of S5 Design Project 1st evaluation mark	7	RA S3,S5,S7 B.Tech IA1	7	Sunday	7	S1 B.Tech IA4	7	
8	Sunday	8		8	2nd Saturday	8	M1 & M3 M.Tech IA2, RA–S3,S5,S7 B.Tech IA2	8	S1 B.Tech IA4	8	2nd Saturday
9		9	S1 B.Tech IA 1	9	Sunday	9	M1 & M3 M.Tech IA2	9	S1 B.Tech IA4	9	Sunday
10		10	S1 B.Tech IA 1	10	M1 & M3 IA1, PTA	10	M1 & M3 M.Tech IA2	10	Second Saturday	10	
11	S1 (2018 22 batch) bridge course/Course team meeting for S1,S3,S5 & S7	11	2nd Saturday	11	M1 & M3 IA1, 2nd evaluation S5 Design Project, PTA	11	S1 B.Tech IA3, 2nd Class Committee Meeting M.Tech M1 & M3	11	Sunday	11	
12		12	Sunday	12	M1 & M3 IA1, PTA	12	S1 B.Tech IA3, B.Tech lab exams, S7 project preliminary evaluation	12	S3,S5 & S7 B.Tech IA4	12	
13		13	S1 B.Tech IA 1	13		13	S1 B.Tech IA3, B.Tech lab exams, S7 project preliminary evaluation, Working day in lieu of 20th Oct	13	S3,S5 & S7 B.Tech IA4, RA M1 & M3 M.Tech IA3	13	
14	2nd Saturday	14	S3,S5,S7 B.Tech IA 1	14	S3,S5,S7 PTA	14	Sunday	14	S3,S5 & S7 B.Tech IA4	14	
15	Sunday	15	Independence day	15		15	S3,S5 & S7 B.Tech IA3	15	RA –S1 B.Tech IA4	15	
16	Jyothirgamaya	16	S3,S5,S7 B.Tech IA 1	16	Sunday	16	S3,S5 & S7 B.Tech IA3	16	RA –S3,S5 & S7 B.Tech IA4	16	Sunday
17	Commencement of S3,S5,S7 B.Tech classes	17	S3,S5,S7 B.Tech IA 1	17		17	S3,S5 & S7 B.Tech IA3	17		17	
18		18	Onam Celebration	18	S1 B.Tech IA2	18	Mahanavami, Industrial Visit	18	Sunday	18	
19		19	Sunday	19		19	Vijayadashami, Industrial Visit	19	Course team meeting for sessional finalization	19	
20		20		20	Muharam	20	Additional Holiday,Industrial Visit	20	Milad I Sherif	20	
21	S5 Design Project Workshop	21		21	Sree Narayana Guru Samadhi	21	Sunday	21	Publication of internal marks	21	X Mas celebration
22	Sunday	22		22	4th Saturday	22		22	Publish attendance for S1,S3,S5& S7	22	
23	1st Class/Course Committee Meeting	23		23	Sunday	23	RA M1 & M3 M.Tech IA2	23		23	
24		24	Onam holidays	24		24		24	4th Saturday	24	
25	DAB Meeting	25		25	S3,S5,S7 B.Tech IA2	25		25	Sunday	25	
26	Staff meeting	26		26		26		26		26	Christmas Holidays
27	DAB Meeting	27		27	2nd Class/Course Committee Meeting B.Tech S1,S3,S5,S7	27	4th Saturday	27		27	
28	Fourth Saturday	28		28		28	Sunday	28		28	
29	Sunday	29	Reopening after Onam holidays	29		29	RA – S1 B.Tech IA3	29		29	
30	DAB Meeting	30		30	Sunday	30	M1 M.Tech lab exams, 3rd Class/Course Committee Meeting B.Tech S1,S3,S5,S7	30		30	
31	1st evaluation S5 Design Project	31		31		31		31		31	

DEPARTMENT OF CIVIL ENGINEERING, VIMAL JYOTHI ENGINEERING COLLEGE

1. Salient features of the B.Tech Programme.

B.Tech Programme is a credit based programme having a normal duration of four academic years, spanning eight semesters. The maximum duration for a student to complete the programme is six academic years spanning twelve semesters. On meeting specific conditions, a student can get a B.Tech (Honours) Degree also.

2. Admission to Bachelor of Technology / B.Tech. / B.Tech. (Honours)

a.   Eligibility for admission to the B.Tech programme, admission policy and procedure shall be decided from time to time by following the guidelines issued by the Government of Kerala and the Government of India and other statutory body such as AICTE.

b.   Subject to Clause 2(a), Admission to B.Tech shall be based on the guidelines given by the State and Central Governments on reservation. Candidates for admission to B.Tech programme shall have passed the Higher Secondary Examination, Kerala or 12th Standard V.H.S.E., C.B.S.E., I.S.C or any other examination considered equivalent to the above mentioned ones. Other eligibility criteria for admission is currently prescribed by the Government of Kerala through Government orders which is based on the entrance examination conducted by the Commission for Entrance Examinations, Government of Kerala and the marks in the qualifying examination subject to the relaxations allowed for backward classes and other communities as specified from time to time.

c.   The Branches of study and number of students admitted are to be based on the approval by the All India Council for Technical Education(AICTE) and the Kerala Technological University(KTU).

d.   Notwithstanding all that is stated above, the admission policy may be modified from time to time by the University, particularly to confirm to directions from the Government of Kerala and the Government of India.

e.   The B.Tech / B.Tech (Honours) programme is a credit based programme. The duration of the B. Tech / B. Tech (Honours) programme will normally be four academic years spanning 8 semesters. The maximum duration shall be six academic years spanning 12 semesters.

3. B. Tech Programme Structure

i)   B.Tech programme in all branches of study is structured on a credit based system following the semester pattern with continuous evaluation allowing flexibility for students to decide on the duration of programme completion.

ii)   Each semester shall have 72 instructional days, followed by end semester examinations.

iii)   There is the provision for a student to opt for B.Tech (Honours) at the end of the fourth semester, under specific conditions that are given later.

iv) Courses are categorized as Core Theory (CT), Core Practice (CP) and Electives (EL).

v) Each course has a course number. Course number includes the offering department or knowledge segment code and a three digit number. Knowledge segment code is used when a course is offered by any one or more departments with the same course content and syllabus.

vi) Please note that each course is given an Examination Slot (A, B, C……..) in the curriculum. This is for simplifying the End-Semester examination schedule. The semester examination schedule will give only the date and the corresponding slot, not the subjects. All subjects that are listed under Slot A will have the examination on that day. Please note the courses you are attending and their slots.

vii) Core courses, Prerequisites and Electives

All courses listed in the curriculum, other than the electives, are core courses. Earning credits in the core courses is mandatory for the B. Tech. degree.
If a student fails in an elective course, he/she can change the elective course with the permission of the faculty advisor concerned.
For some courses there could be a prerequisite course completion/registration requirement.

viii) The curriculum of B.Tech in Civil Engineering is designed to have a minimum of 180 academic credits and 2 additional pass/fail credits, for the award of the degree. Credits are assigned to courses based on the following general pattern.

Knowledge segments	Credits
Basic Sciences	10 [8 Theory+ 2 Labs]
Mathematics	16
Humanities	9
Basic Engineering	29 [25 Theory +4 Labs]
Professional Engineering	89 [80 Theory +9 Labs]
Electives	15
Seminar	2
Comprehensive Viva	2
Design project	2
Project	6
Total academic credits	180
Student's activities	2 (Audit-pass/fail)
Total credits for B.Tech degree	182

➢ One credit for each lecture hour per week for one semester

➢ One credit for each tutorial hour per week for one semester

➢ One credit for each laboratory/ practical session of 2 or 3 hrs, per week for one

19

semester.

Lectures, Tutorials and Practical are indicated in the curriculum as L - T - P followed by the Credits for them. If L - T - P is 3 - 1- 0 the credit is 4; Likewise for 2 - 0 -2 the credit is 3 and for 0 -0- 3 the credit is 1.

ix) The University may allow students to transfer credits they have earned at other Universities and Academic Institutions with its approval.

x) Student Activities Points:

In addition to academics, students have to actively engage in co-curricular and extra-curricular activities. Points are allotted for such activities. On getting a minimum of 100 activity points the student passes the course and earns 2 credits. The 2 credits earned as mentioned above are not counted for the CGPA, but is mandatory for the award of the Degree. Details about activity points is mentioned in the later pages.

4. Course Registration and Enrolment

It is mandatory for students to register for the courses they want to attend in a semester. Students admitted freshly to the first semester, are advised to register for all courses listed for the semester. However they do not have to enroll for the semester. All other students are required to register and enroll for the courses they desire to take in the coming semester. They have to enroll for these courses at the beginning of the new semester, based on the previous semester results. This allows them to make changes in the list of courses already registered for. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary issues pending. The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed up to 7 working days from the stipulated date, will attract a late fee. A student can withdraw from a course or substitute one already registered by another on valid reasons with the approval of the faculty advisor. However this has to be done within seven working days from the commencement of the semester. The maximum number of credits a student can register for in a semester is limited to 28.

5. Fee charged by the University

The approved Fee Structure for B.Tech is as follows:

Sl.No	Category	Amount
a	Student Administration Fee	Rs.1000/- per student(one-time fee collected at the time of admission)
b	Examination Fee	Rs.500/- per Semester + Rs. 200/- per theory paper (At the time of registration of the courses)
c	Late fee	Rs.500/-
d	Revaluation fee	Rs.600/- per paper

The fee will be collected by the college.

6. Course Completion and Earning of Credits

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the University and appear for all the internal

evaluation procedures and end semester examination for the completion of the course. Credits for the course are earned only on getting a pass grade in the composite evaluation (i.e., internal evaluation + end semester exam).

For students admitted under lateral entry scheme, credits for the first and second semester courses are deemed to have been earned from the Diploma programme. Their eligibility criteria for registering for higher semester courses will be same as that for the B.Tech programme.

7. Summer Courses

The students who have failed in any course due to lack of eligibility can register for summer courses provided the attendance in regular course was above 50% and Internal Assessment marks were more than or equal to 35%. Make up test will be conducted for such students and IA marks will be revised on the basis of marks obtained in the makeup test. Students should have 75% attendance in the summer course and IA marks should be 45% or more to become eligible to write the examination

The summer courses shall be considered as independent course and students have to register for this course. This provision of summer courses may be extended to students who have got FE grade due to (i) shortage of attendance(i.e. having attendance less than 75%) and (ii) shortage of internal evaluation marks(i.e. having IA marks less than 45%) with the following conditions:

(1) The students shall have minimum 50% attendance in the specified course of the regular semester. They have to register for the summer course and obtain 75% attendance.

(2) The students shall have a minimum of 35% IA marks in the regular semester. During the summer course the student will get a chance to improve the IA marks by writing one IA make up test during the summer course. This will replace the lower of the two marks got in the regular semester. However the IA marks shall be limited to 50%.

Summer courses will be conducted for a minimum of 20 contact hours for each course. Summer courses will be offered only at the end of the second and fourth semesters for the courses covered till that semester.

Details of summer courses planned will be announced by the colleges after the completion of regular classes. Final examination for summer courses will be conducted by the University.

Options for the fifth and higher semesters

For higher semesters, i.e., fifth semester onwards, summer courses are not offered. Failed students who have less than 45% marks in internal assessments and/or less than 75% attendance have to register again for the course in the regular semester in which it is offered and complete the course as per the regulations and appear for the end semester examination.

Failed students having 45% marks or more in internal assessments have the option to register again for the course as mentioned above or register only for the end semester examination without attending the course again.

8. Contact Courses

If a student has to earn credits only just for one course to qualify for the degree after completing eight semesters of study, the college concerned may offer a contact course on a written request by the student.

The contact course is considered as fresh registration and will be offered by the teacher concerned who shall conduct the internal evaluation procedures and allot the marks as per the regulations. Minimum contact hours for the course will be 20. The final examination will be conducted by the college and will be monitored by the external academic auditor. Question paper for the examination will be given by the Controller of Examination. No grade above **C** will be given for a contact course.

9. Academic Assessment/Evaluation

University follows a continuous academic evaluation procedure. Academic evaluation composes of internal evaluation and end semester examination.

Academic evaluation procedure and corresponding weights are as follows:-

a) For theory courses: -

Normally 1/3rd weightage for internal evaluation and 2/3rd for end semester examination.

For convenience, the maximum marks for internal evaluation and end semester examination for theory courses are fixed as 50 and 100 respectively unless otherwise specified through internal circulars for any particular examination

Internal evaluation marks:
Decision on this will be taken by the Principal and verified by the external academic auditor.

b) For Laboratory /Practical /Workshop courses

i)	Practical records /Outputs	60 marks	(Internally by the College)
ii)	Regular class Viva	10 marks	(Internally by the College)
iii)	Final practical exam	30 marks	(Internally by the College)

30 marks for final written test/quiz in the evaluation of laboratory/practical courses in 3 to 8 semesters shall be awarded by conducting one end semester internal practical examination.

All the above assessments are mandatory to earn credits. If not, the student has to complete the course/assessments during his free time in consultation with the faculty members. On completion of these, grades will be assigned. In case the Practical / Laboratory/ Workshop courses are not completed in the semester, grade I (incomplete) will be awarded against the course and the final grade will be given only after the completion of the course/ assessments.

c) Comprehensive Examination

As students appear for placements from seventh semester onwards, comprehensive examination is to be completed in the sixth semester. This examination consists of two parts.

Part one a written test and the other an oral one. The written examination will be objective type of 1 hour duration and will have 50 marks and will be conducted by the concerned department/university.

Chairman of the oral examination board will be a senior faculty in the department and the members include two other faculty members of the department and an external expert from another academic institute or an industry. Oral examination will carry 50 marks.

Comprehensive examination may be conducted any time during the 6th semester.

B.Tech Comprehensive Examination - details

1. Comprehensive examination is conducted in two stages each having 50 marks. One is an objective test to assess the general engineering knowledge the student has gained. For this the subject coverage is to be specified based on the courses completed so far. Majority of the questions shall be from the respective engineering branch courses (80%) and the rest from common engineering courses completed in the first two semesters. Specific courses will be listed out by the University for the students to focus their attention on them.

2. The courses for the written exam will be (i) MA101 Calculus (1 question) (ii) MA102 Differential equations (1 question) (iii) BE100 Engineering Mechanics (2 questions) (iv) BE110 Engineering Graphics (2 questions) (v) BE103 Introduction to Sustainable Engineering (2 questions) (vi) BE102 Design & Engineering (2 questions) (vii) Branch specific core courses (no advanced courses) – 6 courses (Minimum 1 and maximum 3 from each of S3, S4 and S5 semesters) - 40 questions (minimum 6 questions from each course).

3. The questions will be objective type with 4 possible answers from which the correct one is to be marked by the students. No questions on formula derivation and questions needing solutions using them are expected to be asked. However the terms in the formulae and their units will be covered. Sketches of any system will be given to identify the mistakes or correct the mistakes in them. Questions on assessing "engineering thinking" ability will be there

4. The other part is an oral examination normally covering about 10 questions. The oral exam will cover all courses so far completed (including practical courses and Design Project). External examiner from the industry will be more meaningful and purposeful.

5. The University will set the objective question paper for each branch. This examination will be conducted in a single day announced by the University, after 2nd internal test.

6. Oral examination shall be conducted at the rate of 3 students/hour. The maximum marks for oral exam is 50. It will be conducted weekly for batch of students or towards the end of the semester for the whole class.

7. The weekly 2 hours allotted for the course can be utilised for conducting oral examination by the committee or for conducting mock oral/written examination by the internal faculty or for discussing objective type questions in the class as per the convenience of the Dept.

8.   Both oral and written examinations are mandatory. But separate minimum marks is not insisted for pass. If a student does not complete any of the two assessments, grade I (incomplete) will be awarded and the final grade will be given only after completion of both assessments.

9.   Fee of Rs.200 per student will be collected at the time of course/exam registration.

List of courses for objective type examination

Common courses for all branches (10 questions)	
Sl. No.	Courses
1	MA101 Calculus
2	MA102 Differential equations
3	BE100 Engineering Mechanics
4	BE110 Engineering Graphics
5	BE103 Introduction to Sustainable Engineering
6	BE102 Design and Engineering
Branch specific courses(minimum 6 questions from each course)	
7	CE201 Mechanics of Solids
8	CE202 Structural Analysis I
9	CE203 Fluid Mechanics I
10	CE204 Construction Technology
11	CE208 Geotechnical Engineering I
12	CE301 Design of Concrete Structures

d)   Seminar

Each student has to give a seminar on a professional topic of current interest in consultation with the faculty member in charge of the seminar in the Department. Students have to prepare a detailed report on the topic of the seminar and submit it to the teacher concerned. The seminar is to be of 20 minutes duration with another 5 minutes given for questions and answers. All students in the class have to attend the seminar without fail. Evaluation will be based on the report, seminar presentation as well as on the ability of the student to answer the questions put forward.

Faculty member in charge of the seminar and another faculty member in the department nominated by the Head of the Department are the evaluators for the seminar. Distribution of marks for the seminar is as follows.

     Marks for the report   : 30%

     Presentation   : 40%

     Ability to answer questions on the topic   : 30%

e)   Design Project

Each student or a group of students has to take up a design project. The project topic could be arrived at in consultation with any faculty member in the department.

The Evaluation of the project will be done in two stages. Two project progress evaluations each carrying 20 marks and a final report evaluation and presentation of the project for 60 marks.

The project supervisor and two other faculty members from the same or any other department, nominated by the Head of the Department form the evaluation board.

f) Final Semester Project

Students, either individually or in a small batch not exceeding four, have to do a project approved by their faculty supervisor.
Evaluation scheme is given below:-

i)	Two progress assessments	: 20% by the faculty supervisor/s
ii)	Final Project Report	: 30% by the Assessment Board
iii)	Project presentation and Viva	: 50% by the Assessment Board

If the project work is not completed satisfactorily, the student has to put in more work and appear again for assessment on a specified date, not earlier than one month after the first evaluation. If the student fails in the project, a fresh registration for the project for one semester is mandatory.

10. Eligibility for writing the end semester examination and for grading

The main eligibility criteria for appearing the end semester examination are

(i) minimum 75% attendance in each course,

(ii) minimum 45% internal marks for each course and

(iii) no pending disciplinary action.

Students who do not meet the above eligibility criteria are awarded an FE grade and have to register for summer courses, if eligible or for the regular course again at the next opportunity. A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise he/she will be considered to have failed in the course and an F grade will be awarded.

Internal marks given to the students who got 45% marks or more in the end semester examination shall be regulated in line with the end semester examination performance. Internal mark percentage shall not exceed 25% over the end semester mark %.
(For example if the end semester mark % is 45, then the maximum internal mark % is to be 45+25 = 70 %.)

In case the student writes the supplementary examination, the mark got in that will be taken into consideration for regulating the internal marks. Those who have more than 45% marks in the

end semester examination are awarded the grade based on both internal assessment and end semester examination marks.

A student earns credits for a course if the grade is P or above.

11. End Semester Examination

a. At the end of the semester, end semester examination will be conducted in all lecture based courses offered in the semester and will normally be of three hours duration, unless otherwise specified. Supplementary examinations shall be conducted during summer vacation after the even semester examination and before the commencement of the next odd semester, for students who are eligible and have registered for the same.

b. Students, who have completed a course but could not write the end semester examination for valid reasons like illness or personal exigencies, are allowed to write the supplementary examination or the end semester examination at the next opportunity and earn the credits without having to register for the course again provided they meet other eligibility criteria.

c. The main eligibility criteria for the end semester examination are attendance in the course, internal marks and no pending disciplinary action. The minimum attendance for appearing for the end semester examination is 75% in each course. Further, the internal evaluation marks in the course should be 45% or above. Students who do not meet these eligibility criteria are awarded an FE grade and have to register for the course again.

d. Students who could not write the end semester examination due to health reasons or other exigencies can register for the supplementary examination, with the approval of the principal provided they have 45% or above marks in the internal evaluations for the course. Candidates who received F grade can also write the supplementary examination. Grades awarded in the supplementary examination will be taken as the end semester grades in these courses.

12. Award of Grades

Grading is based on the % marks obtained by the student in a course. The grade card will only give the grades against the courses the student has registered. Semester grade card will give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA) up to that semester

13. Grades and grade points

Grades and Grade Points as per UGC guidelines will be followed by the University

Grades		Grade Point (GP)	% of Total Marks obtained in the course
O	(Outstanding)	10	90% and above
A^+	(Excellent)	9	85% and above but less than 90%
A	(Very Good)	8.5	80% and above but less than 85%
B+	(Good)	8	70% and above but less than 80%
B	(Above Average)	7	60% and above but less than 70%
C	(Average)	6	50% and above but less than 60%
P	(Pass)	5	45% and above but less than 50%
F	(Fail)	0	Less than 45%
FE		0	Failed due to eligibility criteria
I			Course Incomplete

SGPA and CGPA are calculated based on the above grading norms and are explained at the later pages.

14. Eligibility for promotion to higher semesters

A student has to earn a minimum number of credits in a semester to be eligible to register for the new courses offered in the next semester. In 1,2&3 semesters if this requirement is not met, the student is to be forewarned and allowed to continue to the next semester. However to register in the 4th,6th & 8th semesters this requirement will be strictly implemented. Summer courses are offered to those who do not satisfy this norm after the 2nd as well as 4th semesters. Students who do not meet this requirement are not permitted to register for new courses in the higher semesters. They have to register for the failed courses in normal semesters in which they are offered subject to the limitations imposed by the ordinances and course timetable.

Eligibility Criteria for Registering for Higher Semester Courses

Semester (1)	Allotted credits (2)	Cumulative credits (3)	Minimum cumulative credits required to register for courses in column (1) (4)
1	24	24	Not applicable
2	23	47	Not insisted
3	24	71	Not insisted
4	23	94	Not insisted
5	23	117	26 credits from S1 & S2
6	23	140	Not insisted
7	22	162	52 credits from S1 to S4
8	18	180	Not insisted

DEPARTMENT OF CIVIL ENGINEERING, VIMAL JYOTHI ENGINEERING COLLEGE

15. Break of Study

A student is permitted to have a break of study.

i) In case of accident or serious illness needing prolonged hospitalization and rest.

ii) In case the student has a bright idea and would like to initiate a start-up venture or develop a new product.

iii) In case of any personal reasons that need a break in study.

For break of study due to illness, student should submit all necessary medical reports together with the recommendation of the doctor treating him giving definite reasons for break of study and its duration. Before joining back the student should submit the fitness certificate from the doctor who treated him.

Students who want to initiate a start-up venture or a product development, have to submit a project report, clearly indicating the purpose, action plan, technical details, funding details and future plans to the college Principal. The Principal will evaluate the proposal by constituting an expert team consisting of a technocrat and a bank executive and take an appropriate decision based on the team's recommendation. In the semester system followed by the University, break of study for an academic year is preferred over a semester break.

Students who want a break in study due to personal reasons shall convince the Principal on the genuine need for it by giving authentic evidence for the same.

In all cases of break of study the maximum duration for completing the B.Tech programme will be twelve semesters.

16. Revaluation and Grade Improvement

There is no provision for improving the grade.

There is no provision for improving the grades. The student can apply for revaluation of the end semester examination after the results are published. The answer scripts already valued by two examiners will not be revalued again.

The students can apply for revaluation of answer scripts by remitting the requisite fee. The final mark awarded will be the best of the two marks. If the difference in marks obtained in revaluation and the original valuation is more than 15% of the maximum marks, it will be sent for third valuation. The final mark will then be the average of the closest of the two marks obtained in the three valuations to the advantage of the student or the mark obtained in the original evaluation whichever is higher. If 15% or more improvement is there in the revaluation, the fee collected will be refunded.

17. Grade Cards

Students who have written the end semester examination will be given the grade cards for the

registered courses, in every semester by the University. On earning the required credits for the degree, the University will issue the final consolidated grade sheet for the B. Tech programme including CGPA. The grade card and degree certificate of students admitted under lateral entry scheme will indicate so.

18. Classification of B.Tech Degree

B.Tech degree will not have any classifications like distinction or first class. There will be no ranks awarded.

19. B. Tech. (Honours)

1. Institutions having at least two NBA accredited B.Tech/M.Tech programs can offer B.Tech(Honours) .
2. The Program should have valid NBA accreditation at the time of registration of the student for B.Tech (Honours), in the fifth semester.
3. The department concerned shall have at least one M.Tech in concerned stream, for B.Tech (Honours) registration.
4. Only Students having no credit arrears and a CGPA of 8 or above at the end of the fourth semester are eligible to register for B.Tech (Honours).
5. After registering for the B.Tech (Honours) programme, if a student fails in any course he/she will not be eligible for B.Tech(Honours).
6. They have to earn additional 12 credits to complete the B.Tech (Honours) programme by registering for courses, each having a minimum of 3 credits.
7. Of these 12 credits, 6 credits are to be earned from M.Tech courses offered by the concerned department.
8. Remaining credits can be earned by registering for any of the following courses:-
      ●Additional B.Tech Elective courses (three credits each)
      ●MOOC courses offered by reputed institutions / organization with the approval of University (three credits each)
      ●Summer program/project offered by IITs or IISc (3 credits)
9. Online courses registered shall be certified ones with grading or marks or pass/fail.
10. Prior to registration to MOOC courses, formal approval of the University based on the organization of the programme, syllabus coverage, detailed duration of the programme, nature of evaluation etc. is needed.
11. If the MOOC course is a pass/fail course without any grades,the grade to be assigned will be B+.
12. Any expense incurred for the MOOC course/Summer programshould be met by the students.

Norms given hereunder while selecting Massive Open Online Courses (MOOC)
1. Courses having 12 weeks' duration alone will be approved (List of such NPTEL courses are attached for guidance).
2. The courses (MOOC) offered by reputed Institutes / Universities ranked within the

first 100

positions in the QS or THE ranking (Times Higher Education World University Ranking) can be selected.

3.   If any College is selecting MOOC of foreign Universities outside the above ranking, approval of such Courses will be subject to final decision by a Committee constituted to scrutinise this.

4.   Courses with contents same as that of the Core Courses in the same Branch will not be approved.

5.   Elective Courses from B.Tech curriculum of this University can also be selected for MOOC if the students are not having those courses as their electives for B.Tech.

20. B.Tech with Minor

The areas for Minor specialization have to be outside the core engineering field of specialization and should allow the interested B.Tech student to focus on his specific interest outside the core curriculum. Such minors are not currently available for the students. Hence the way out is only through external assistance from well recognized establishments and organizations and by meeting the academic standards. For a Minor to be approved, the student should earn 12 credits by registering for courses, projects, and other well defined procedures giving specialized knowledge or experience enabling the student to be capable of integrating or supplementing the knowledge gained in the B.Tech program.

One such Minor could be in Technology Entrepreneurship. For this the courses offered by government recognized TBI and certified by them as per the KTU approved procedures could be identified. These courses are to be offered outside the normal academic timings and during vacations.

Likewise minors in any other field like music, journalism, IPR etc could also be included if they are offered by other universities or institutions and there are takers for them.

The University will consider the inclusion of the minor in the B.Tech Degree Certificate with the approval of the UGC/AICTE. CGPA for the minor will be separately given for the minor specialization.

21. Academic Calendar.

The academic calendar for every academic semester will be published by the University in its website. It indicates the commencement of the semester, date of beginning of instruction, the course registration and enrolment dates, the schedule for mandatory internal tests for theory courses, dates of completion of laboratory/practical evaluations, date for finalization of internal marks, last instruction day in the semester, planned schedule of end semester examinations and result declaration as well as approved holidays falling within the semester.

Schedules for the supplementary examinations and result declaration dates will be included in

the calendar. The schedule of summer courses will also be indicated in the calendar.

22. Discipline

Every college will have a Student's Welfare Committee and a Disciplinary Action Committee (DAC), constituted by the Principal of the college. Each college will have a Grievance Redress and Appeals Committee constituted by the Principal to address the grievances of the students and to consider their appeals on any decisions made by the college.

Breach of guidelines and unfair practices in Examinations will be viewed seriously and appropriate actions will be taken by the colleges.

23. Academic Malpractices

Every student is required to observe discipline and decorous behaviour. Any act of indiscipline, misbehaviour and unfair practice in examinations will be referred to the Disciplinary Action Committee (DAC). Malpractices in examinations will be viewed seriously and any such incident observed or reported by a faculty member or an invigilator associated with the examinations will be reported to the Principal who in turn will refer it to DAC. On the basis of the report and evidence available or gathered, DAC shall immediately initiate an enquiry giving the concerned student a chance to explain his/her case. Based on this the committee will recommend the course of action in line with the guidelines formulated for this by the Controller of Examination of the University and forward it to the Principal for action.

The student can appeal to the Grievances and Appeals Committee for a relook on the matter. Based on the committee's report, the Principal will take a final decision on the matter.

DAC will be headed by a department head and will have three other faculty members drawn from different departments as members. In case of malpractices in end semester examinations, the report given by the college DAC and the action taken by the Principal will be intimated to the Controller of Examination of the University

24. Rules on Attendance

Attendance is marked for each course. While 75% attendance is mandatory for writing the end semester examination in that course, students are expected to have 100% attendance. However under unavoidable circumstances students are permitted to take leave. Leave is normally sanctioned for any approved activity taken up by students outside the college covering sports and other extracurricular activities. Leave shall be allowed to the students participating in sports and other extracurricular activities representing the University or the State. The minimum attendance required for appearing the end semester examination of each course will be 75% (as prevailing in existing Ordinance). The Principals are authorised to grant relaxation to the students participating in sports / extracurricular activities representing the University or the State upto a maximum of 10%. Such students should produce the participation certificate countersigned by the University Sports Coordinator / the Director of Physical Education in the case of sports activities and the Faculty Advisor in the case of other extracurricular activities; within ten days of the event to the

respective Head of Department and then to the Principal. Under any circumstances, the certificate will not be considered if the overall attendance of the candidate is less than 65%.

Leave is also permitted on medical grounds or on personal exigencies. In case of long illness or major personal tragedies / contingencies the College Principal can relax the minimum attendance requirement to 60%, to write the end semester examination. This is permitted for one or more courses registered in the semester. Principal shall keep all records which led to his decision on attendance, for verification by the Academic Auditor. However this concession is applicable only to any two semesters during the entire programme. In case of prolonged illness, break of study is permitted.

25. Leave of Absence

Students who want to take leave have to submit a leave letter to the teacher conducting the course. For medical leave over three days, medical certificate indicating the need for leave is required. After any medical leave exceeding five instruction days, on re-joining, the student has to produce the fitness certificate given by the doctor.

26. Ragging

Ragging of any nature is a criminal and non-bail able offence. Involvement in ragging shall lead to stringent punishment, including imprisonment as per the law of the land. A student, whose involvement in ragging is established, shall be summarily dismissed from the college. Each student of the Institute, along with his/her parent, is required to give an undertaking in this regard and the same is to be submitted at the time of registration.

27. Eligibility for Award of Degree

The award of B.Tech/B.Tech (Honours) degree will be based on the recommendation of the Academic Committee and the approval of the Board of Governors and in accordance with the academic regulations.

A student will be eligible for the award of B.Tech Degree on satisfying the following requirements

(i) Earned credits for all core courses and the Project.

(ii) Earned the required minimum credits as specified in the curriculum for the branch of study.

(iii) No pending disciplinary action.

28. Norms for Inter College Transfer
1. The following Category of students are not eligible for intercollege transfer
   a. Govt.of India Nominee
   b. Management Quota in Aided Colleges

32

c.	Any other category which are ineligible as per the conditions for admission prescribed by Govt.of Kerala/ Govt.of India.

2.	Inter college transfer shall be applicable only for regular B.Tech students.

3.	Inter college transfer shall be permitted before the commencement of the Third semester and Fifth semester.

4.	Inter college transfer shall be effected within the sanctioned strength of the college.

5.	The Transfer shall be permitted

(i)	Between Govt. / Govt. Aided Colleges.

(ii)	Govt. and Govt. Aided colleges to self-financing colleges.

(iii)	Between Self- financing Colleges. (Including Govt. controlled)

6.	Notification inviting application for Inter College Transfer will be issued by the University during the Second semester/Fourth semester.

7.	The candidate should fulfil the academic eligibility requirement for the promotion to the Third Semester/Fifth semester.

8.	If the numbers of applicants are more than the seats available, the admission may be based on the GPA obtained in the First semester (for ICT to S3)/CGPA up to Third semester (for ICT to S5). Ties will be broken by the marks obtained in for Mathematics, Physics/Chemistry taken in that order.

9.	The students will have only one option of the college for transfer.

10.	The request for the transfer shall be submitted to the college in which the transfer is sought with the recommendation of the Principal of the college in which the student is currently studying.

11.	The selected candidates shall remit a fee ofRs 3000/- (No fee for SC/ST students) within the stipulated date to KTU while joining in the new college.

12.	The college transfer once approved by the receiving college will be final and binding on the applicant. No student will be permitted, under any circumstances, to refuse the change of college once offered.

13.	A student who has already availed inter college transfer in S3 will not be permitted college transfer in S5

Procedure for the College Transfer

(Student seeks a transfer from College A to College B)

Step 1 : Submit a request for transfer to the Principal where he/she is presently studying (College A)

Step 2 : The principal of college A may or may not recommend the transfer. Once recommended, the recommendation cannot be reversed and hence the Principal of college A has to relieve the student, if the student gets the transfer to college B.

Step3: The Principal of college B shall publish the number of students that can be admitted based on the availability of vacant seats and based on the norms published by the University.

Step4: Principal A relieves the student if he/she is selected by college B with necessary entries in the KTU portal.

Step5: Principal B admits the student in College B with necessary entries in the KTU portal.

Step6: Student remits the fee to the University.

29. Norms for Branch change

1. A student admitted to a particular branch of the B.Tech programme will normally continue studying in that branch till completion.
2. However, in special cases the University may permit a student, who has requested for a change from one branch of study to another after the first two semesters, strictly in accordance with the provisions laid down hereinafter.
3. Only those students who have (a) completed all the credits prescribed in the first two semesters of their studies, and (b) obtained a CGPA not lower than 7.5 (6.5 for SC/ST students) at the end of the second semester will be eligible for consideration for a change of branch after the second semester.
4. Change of branch shall be made strictly on the basis of CGPA of S1 & S2 at the end of second semester of the applicant. Ties will be broken by the marks obtained in S1 &S2 for Mathematics, Physics, and Chemistry taken in that order.
5. Change of branch will be considered only in the college in which the applicant is presently studying to the vacant seats within the sanctioned strength of the branch in the college.
6. The notification regarding the transfer of branch will be published in the website of the college after the semester examination. The colleges have to collect the applications from the students, list them in the website and inform the KTU.
7. Students can give only one choice of branch, to which they wish to change over.

8. All changes of branch made in accordance with the above rules will be effective from the third semester of the applicants concerned. No changes of branch shall be permitted thereafter.
9. All changes of branch will be final and binding on the applicant. No student will be permitted, under any circumstances, to refuse the change of branch once offered.
10. The appropriate credits applicable to the new branch of study earned by the student in the first two semesters will be transferred to him in the new branch. The college will have to make sure the academic requirements given in the table below are met to undergo the study in the new branch.

30. Calculation of SGPA/CGPA

Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows:

$$SGPA = \Sigma(C_i \times GP_i)/\Sigma C_i$$

where C_i is the credit assigned for a course and GP_i is the grade point for that course. Summation is done for all courses registered by the student in the semester. Here the failed courses are also accounted.

$$CGPA = \Sigma(C_i \times GP_i)/\Sigma C_i$$

where C_i is the credit assigned for a course and GP_i is the grade point for that course. Summation is done for all courses registered by the student during all the semesters for which the CGPA is needed. Here the failed courses are also accounted.

CGPA of all courses passed may also be given.

CGPA for the B. Tech programme is arrived at by considering all course credits that are needed for the degree and their respective grade points.

Conversion of GPA to percentage
A general formula for conversion of SGPA/CGPA into percentage of marks cannot be defined. However, several students request for percentage of marks, as in many cases they have to provide % of marks. The Academic committee has approved an approximate formula for conversion of SGPA/CGPA to % marks as follows.

The Percentage Marks (% Marks) = 10xG - 3.75

$$\text{Where G is SGPA or CGPA}$$

31. Credits transfer

Credit transfer is about the transfer of credits earned in an approved program by a student from one Institution/University, when moving to another. Credits earned in one program can be transferred to the same program at another institution, or to a different program at either the same institution or another one.

Credit Transfer is not applicable for the following cases
1. Lateral entry students
2. Evening programs
3. Readmission to KTU from other Universities in Kerala. Credit transfer at KTU

Credit transfer allows transferring of earned credits from another Institution /University, under specific conditions, to KTU.

Credit transfer is applicable to B.Tech and M.Tech students joining the 2nd or 3rd semester, who had undergone the same program in another Institution/University. Maximum credit transfer allowed for any program is 50 credits.

Credits will be transferred for courses with pass grades only.

If the Institution/University is following the UGC grade format, the grades will be transferred directly. Otherwise University will decide on the grading for the transferred programmes after verifying all relevant documents.

Credit transfer is permitted for Project done in reputed institutions within or outside the country.

Credits transfer is allowed for University approved online courses. This is not permitted for online Mathematics courses.

Credit transfer will be approved only as per KTU norms. Courses of poor quality, courses that have no relevance to the program concerned and pass/fail courses will not be considered for credit transfer. Normally only courses that are equal and challenging will be accepted for credit transfer.

Procedure for credit transfer

For any credit transfer a formal request from the concerned student with all relevant materials is needed. The student should submit his request enclosing the details of all courses attended, their syllabus details, marks/grades obtained and any other information relevant to the courses. All documents are to be submitted in original or as self attested.

All credit transfers are to be approved by an expert committee constituted by the Dean(Academic) for the purpose. This committee shall have one senior faculty member from the department concerned and two other academic experts in addition to the chairman. The committee shall go through the details submitted by the student in detail and assess their relevance from the KTU perspective before approving the credit transfer. Credit transfer is not permitted for courses completed before three years.

32. KTU university exams

Admission of students
Students shall bring their hall ticket and college identity card, on each day of the examination and shall produce the same when demanded by the Chief Superintendent or Invigilator or any other person authorised by the University for the purpose. The Principal shall have the power provisionally to admit a student who has lost his/her hall ticket and/or identity card for one day, if personally satisfied as to the identity of the student. In subsequent days the student has to bring new hall ticket issued by the University and/or identity card issued by the college.
Students shall take their seats in the examination hall at least 10 minutes before the time fixed for the start of examination.
Students presenting themselves more than 15 minutes after the commencement of examination should not be admitted for the examination of that day.
It shall be competent to the Principal to exclude any student from an examination, on being satisfied that he/she is suffering from any infectious or contagious disease. Such cases shall immediately be reported to the Controller of Examinations.
Students who are not eligible to appear the examination, due to not satisfying any of the eligibility criteria as per the respective ordinances/regulations of the programme, shall not be admitted to the examination hall.

Discipline in the examination hall

Students are forbidden to ask questions of any kind during the examination. Invigilators are instructed to refuse to answer any inquiries what so ever, relating the question papers whether in explanation of the meaning or in correction of typographical errors. Students are not allowed to write anything except the register numbers and names on the question papers supplied to them.

Students should not indulge in any malpractices in the University examination. If any student is found to be indulged in any type of malpractice appropriate action shall be taken by the Principal immediately. Different types of malpractices and the punishments for them are given in the following page. Any malpractice case and the action taken shall be reported to the Controller of Examinations along with all documents and evidences, after enquiry.

Leaving the examination hall

No students shall be allowed to leave the examination hall till the expiry of one hour after a question paper has been given out and no student who leaves the room during the period allotted for the paper shall be allowed to return within that period. Students who leave the examination hall before the end of examination should surrender their question papers to the invigilator and may collect them back after the examination, if they desire so.

Students shall be permitted to leave the examination hall only after his/her answer book is taken charge of by the invigilator. They should not be permitted to leave the hall after keeping their answer books in their seats.

List of malpractices/offence and their punishment:

Sl No	Type of Malpractice/Offence	Punishment
1.	Impersonation	Permanent debarring Reference to Police
2.	Introduction of any non-permissible material relevant to the examination, with the intention of copying and possession of them	Debarring for one to three chances
3.	Possessing any written matter on scribing pad, calculator, data book, hand kerchiefs, clothing, socks, instrument box, identity card, scales, or in any part of the body	Debarring for one to three chances
4.	Resisting to hand over non-permissible material brought to the examination hall to the invigilator	Debarring for six chances
5.	Possession of mobile phones, tab, pen camera and such other electronic gadgets	Debarring for three chances
6.	Copying from neighbor's answer scripts	Debarring for one to three semesters depending on gravity

7.	Disobeying the invigilator/ other officials or resistance to instruction from authority	Debarring for four to six chances
8.	Using filthy language in the answer books	Debarring for three to six chances
9.	Copying from any material and resisting the instruction of invigilator	Debarring for six to eight chances
10.	Destroying the evidence of malpractice like tearing, mutilating the answer scripts or running away with the answer scripts from the examination hall	Debarring for six chances to Permanent Debarring
11.	Writing on the question paper and/or passing on the same to other student(s) in the Examination Hall	Cancellation of examination of both the candidates involved

12.	Changing/replacing roll numbers and answer books	Permanent Debarring
13.	Manhandling or threatening the invigilator/officers or any authority of the University	Permanent Debarring Reference to the police
14.	Sitting at wrong seat	Debarring one chance
15.	Threatening/requesting the neighbor to show the answer script	Debarring one to two chances
16.	Helping neighbors to answer questions	Debarring for two to four chances
17.	Tampering with answer books of neighbors	Debarring for six chances to permanent debarring
18.	Tampering answer books, removing pages, tampering bar code, writing register no, name, name of college or other identifying marks within the answer book	Debarring two to three chances

19.	Disturbing the candidates from outside	Registration as student shall be cancelled Reference to Police Debarring for one to two chances
20.	Disturbance outside the Hall	Registration shall be cancelled Debarring for two chances to permanent debarring Reference to the police
21.	Shouting answers from outside	Registration as student shall be cancelled Debarring for two chances
22.	Stealing answer books, smuggling question papers or other examination materials	Registration as student shall be cancelled Reference to police
23.	Breaking open the closed examination halls	Registration as student shall be cancelled Reference to Police Debarring for two chances
24.	Tampering arrangements for conduct of examination	Registration as student shall be cancelled Reference to Police Debarring for two chances
25.	Threatening/bribing invigilators, officials and examiners	Registration as student shall be cancelled Reference to police
26.	Refusing to hand over question paper when leaving the room during examination hour	Not to be allowed to take the examination of subsequent days

33. Open book examination

Open book examination will be conducted for the courses specified by the university. Students are permitted to bring in class notes, own notes, text books and other books (Maximum 3/4 books) for the test. Access to internet and mobile phones is NOT permitted.

34. Student Activity Points

Apart from technical knowledge and skills, to be successful as professionals, students should have excellent soft skills, leadership qualities and team spirit. They should have entrepreneurial capabilities and societal commitment. In order to nurture these qualities, KTU has introduced activity points to be earned by the students during their academic stay at the University covering extra-curricular and co-curricular activities. All students have to earn a minimum of 100 activity points from various activity segments listed to qualify for the B.Tech degree. Two credits are given for this on a pass/ fail basis and is mandatory for getting the B.Tech Degree. As no grade is given for these two credits, they are not included in the CGPA calculation. For lateral entry students joining from the third semester, the activity point requirement is 75. Points earned by the student will be indicated in the consolidated academic statement. Colleges shall consolidate the activity points earned by students on a semester basis and enter the consolidated points on an academic year basis in the KTU portal. In case of NSS and NCC, points can be entered after the completion of two-year Programme. The portal for this will only be open for a specific time period. All documental proof for awarding the activity points should be obtained and kept with the college authorities to be verified by the Academic Auditor.
The main activity segments are as given below:-

1. National Initiatives

2. Sports & Games

3. Cultural Activities

4. Professional Self Initiatives

5. Entrepreneurship and Innovation

6. Leadership & Management

The following table gives the list of activities under each of these segments, the level of achievement expected, activity points, evidence needed to assign the points and the minimum duration needed for certain activities. Additional activities falling under these segments can be considered, if requested by the college with full details. However this has to be approved by the Academic Committee of the KTU.

Activity Head	Sl. No	Activity	Achievement Levels and Assigned Activity Points					** Approval Document	Max. Points	Min. Duration of activity
		*Level	I	II	III	IV	V			
National Initiatives Participation	1	N C C	-	-	-	-	-	a/b	60	2 Years
	2	N S S	-	-	-	-	-	a/b	60	2 Years
		For C certificate / outstanding performance supported by certification, additional marks upto 20 can be provided subjected to maximum limit of 80 points								
		Best NSS Volunteer Awardee (University level) / Participation in National Integration Camp/ Pre Republic Day Parade Camp (South India), supported by certification, additional marks upto 10 can be provided subjected to maximum limit of 70 points								
		Best NSS Volunteer Awardee (State / National level) / Participation in Republic Day Parade Camp / International Youth Exchange Programme, supported by certification, additional marks upto 20 can be provided subjected to maximum limit of 80 points								
Sports & Games Participation	3	Sports:	8	15	25	40	60	a	60	1 Year
	4	Games	8	15	25	40	60	a	60	1 Year
		First Prize	10	10	10	20	20	Additional points can be provided for winning. The maximum limit for activity points is 60. But for Level IV and V winning, the maximum point limit is enhanced to 80		
		Second Prize	8	8	8	16	16			
		Third Prize	5	5	5	12	12			
Cultural Activities Participation	5	Music	8	12	20	40	60	a	60	1 Year
	6	Performing arts	8	12	20	40	60	a	60	1 Year
	7	Literary arts	8	12	20	40	60	a	60	1 Year
		First Prize	10	10	10	20	20	Additional points can be provided for winning. The maximum limit for activity points is 60. But for Level IV and V winning, the maximum point limit is enhanced to 80		
		Second Prize	8	8	8	16	16			
		Third Prize	5	5	5	12	12			
Professional Self Initiatives	8	Tech Fest, Tech Quiz	10	20	30	40	50	a	50	
	9	MOOC with final assessment certificate	50					a	50	

Category	No.	Activity								
	10	Competitions conducted by Professional Societies - (IEEE, IET, ASME, SAE, NASA etc.)	10	15	20	30	40	a	40	
	11	Attending Full time Conference/ Seminars / Exhibitions/ Workshop/ STTP conducted at IITs	20					a	40	
	12	Paper presentation/ publication at IITs /NITs	30					a	40	
		Additional 10 points for certificate of recognition.								
	13	Poster Presentation at IITs /NITs	20					a	30	
		Additional 10 points for certificate of recognition.								
	14	Industrial Training/ Internship (atleast for 5 full days)	20					a/b	20	
	15	Industrial/ Exhibition visits	5					a/b/d	10	
	16	Foreign Language Skill (TOFEL/ IELTS/BEC exams etc.)	50					a	50	
Entrepreneurship and Innovation	17	Start-up Company – Registered legally	60					d	60	
	18	Patent-Filed	30					d	60	
	19	Patent - Published	35					d	60	
	20	Patent- Approved	50					d	60	
	21	Patent- Licensed	80					d	80	

			Core coordinator	Sub coordinator	Volunteer			
	22	Prototype developed and tested	60			d	60	
	23	Awards for Products developed	60			d	60	
	24	Innovative technologies developed and used by industries/users	60			d	60	
	25	Got venture capital funding for innovative ideas/products.	80			d	80	
	26	Startup Employment (Offering jobs to two persons not less than Rs. 15000/- per month)	80			d	80	
	27	Societal innovations	50			d	50	
Leadership & Management			Core coordinator	Sub coordinator	Volunteer			
	28	Student Professional Societies (IEEE, IET, ASME, SAE, NASA etc.)	15	10	5	d	40	
	29	College Association Chapters (Mechanical, Civil, Electrical etc.)	15	10	5	d	40	
	30	Festival & Technical Events (College approved)	15	10	5	d	40	
	31	Hobby Clubs	15	10	5	d	40	
	32	Special Initiatives (Approval from College and University is mandatory)	15	10	5	d	40	

| | 33 | Elected student representatives | 30 (Chairman) | 25 (Secretary) | 15 (Other Council Members) | d | | |

*Level I   College Events

*Level II   Zonal Events

*Level III   State/ University Events

*Level IV   National Events

*Level V   International Events

**Approval Documents: (a) Certificate (b) Letter from Authorities (c) Appreciation recognition letter (d) Documentary evidence (e) Legal Proof (f) Others (specify)

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B. Tech. Syllabus

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Modified Curriculum for B.Tech Degree Semesters I and II 2016

APJ Abdul Kalam Technological University
CET Campus, Thiruvananthapuram
Kerala -695016 India
Phone +91 471 2598122, 2598422

Fax +91 471 2598522 Web: ktu.edu.in
Email: university@ktu.edu.in

SEMESTER I

Slot	Course No.	Subject	L-T-P	Hours	Credits
A	MA101	Calculus	3-1-0	4	4
B (1/2)	PH100	Engineering Physics	3-1-0	4	4
	CY100	Engineering Chemistry	3-1-0	4	4
C (1/2)	BE100	Engineering Mechanics	3-1-0	4	4
	BE110	Engineering Graphics	1-1-3	5	3
D	BE101-0X	Introduction to _____ Engineering	2-1-0	3	3
E	BE103	Introduction to Sustainable Engineering	2-0-1	3	3
F (1/4)	CE100	Basics of Civil Engineering	2-1-0	3	3
	ME100	Basics of Mechanical Engineering	2-1-0	3	3
	EE100	Basics of Electrical Engineering	2-1-0	3	3
	EC100	Basics of Electronics Engineering	2-1-0	3	3
S (1/2)	PH110	Engineering Physics Lab	0-0-2	2	1
	CY110	Engineering Chemistry Lab	0-0-2	2	1
T (2/4)	CE110/ME110/ EE110/EC110/ CS110/CH110	Basic Engineering Workshops (CS110 for CS and related branches and CH110 for CH and related branches only)	0-0-2 + 0-0-2	2 2	1 1
U		U100 Language lab/CAD Practice/Bridge courses/Micro Projects etc	0-0-(2/3)	(2/3)	
				30	24/23
V		V100 Entrepreneurship/TBI/NCC/NSS/ Physical Edn. etc	0-0-2	2	Activity points

List of Courses offered under BE 101-0X and Branches associated with each course

1. **BE101-01 Introduction to Civil Engineering**

   Civil Engineering

2. **BE101-02 Introduction to Mechanical Engineering Sciences**

   Aeronautical Engineering, Automobile Engineering, Food Technology, Industrial Engineering, Mechanical Engineering, Mechanical Engineering (Automobile), Mechanical Engineering (Production), Mechatronics, Metallurgy, Naval Architecture & Ship Building , Production Engineering.

3. **BE101-03 Introduction to Electrical Engineering**

   Electrical & Electronics Engineering.

4. **BE101-04 Introduction to Electronics Engineering**

   Applied Electronics & Instrumentation Engineering, Biomedical Engineering, Electronics & Biomedical Engineering, Electronics & Communication Engineering, Electronics & Instrumentation Engineering, Instrumentation & Control Engineering.

5. **BE101-05 Introduction to Computing and Problem Solving**

   Computer Science & Engineering, Information Technology.

6. **BE101-06 Introduction to Chemical Engineering**

   Biotechnology/ Biotechnology & Biochemical Engineering, Chemical Engineering,

2. Institutions can recommend **one of four** other Basic Engineering courses offered during this semester for every branch. However, the basic course selected should exclude the one corresponding to their branch of specialization. eg. Student who took Introduction to Civil Engineering should not take Basics of Civil Engineering; student who took Introduction to Electrical Engineering should not take Basics of Electrical Engineering

3. The six basic engineering workshops will be connected with the Introductory or Basics of Engineering courses offered. The students should attend **two workshops in Semester 1 and two in Semester 2.**

For example, students opting *Introduction to Civil Engineering* or Basics of Civil Engineering should attend the *Civil Engineering Workshop*, students opting *Introduction to Mechanical Engineering* or Basics of Mechanical Engineering should attend the *Mechanical Engineering Workshop*, students opting *Introduction to Chemical Engineering* should attend the *Chemical Engineering Workshop* and students opting *Introduction to Computing and Problem Solving* should attend the *Computer Science Workshop* etc. In addition, the students should attend one more workshop course in Semester 1, corresponding to the other Basic Engineering course they had been assigned by the institution. The workshop courses corresponding to both introductory and basic courses are same. However, the institutions may allot exercises or experiments listed in the syllabus based on the contents of corresponding theory course.

4. Engineering Physics and Engineering Chemistry shall be offered in both semesters. Institutions can advise students belonging to about 50% of the number of branches in the institution to opt for Engineering Physics in S1 and Engineering Chemistry in S2 and vice versa. Students opting for Engineering Physics in S1 should attend Engineering Physics Lab in S1 and students opting for Engineering Chemistry in S1 should opt for Engineering Chemistry Lab in S1.

5. Engineering Mechanics and Engineering Graphics shall be offered in both semesters. Institutions can advise students belonging to about 50% of number of branches in the institution to opt for Engineering Mechanics in Semester 1 and Engineering Graphics in Semester 2 and vice versa.

6. It may be noted that for items 4 and 5 above, all students belonging to a particular branch of study must be assigned the same course during one semester. For example, all students belonging to Electrical and Electronics Engineering in an institution may be assigned Engineering Physics and Engineering Physics lab, while all students in Electronics and Communication Engineering branch may be assigned Engineering Chemistry and Chemistry lab. Likewise, all students in Civil Engineering branch may be assigned Engineering Graphics, while all students in Mechanical Engineering branch may be allotted the Engineering Mechanics in Semester 1 and vice versa in Semester 2.

7. For **Course U**, the Institutions should conduct **diagnostic tests** to identify the training requirements of each student and advise them to attend the suitable programme. The students who excel in all diagnostic tests can be assigned **Micro projects** under the guidance of faculty members. The classes for which BE110 Engineering Graphics is offered under slot C may be divided into two batches and these batches shall attend CAD Practice lab & Language Lab in alternate weeks.

8. **Course V** is for earning activity points outside academic hours, the details are covered in rules and regulations of KTU.

SEMESTER II

Slot	Course No.	Subject	L-T-P	Hours	Credits
A	MA102	Differential Equations	3-1-0	4	4
B (1/2)	PH100	Engineering Physics	3-1-0	4	4
	CY100	Engineering Chemistry	3-1-0	4	4
C (1/2)	BE100	Engineering Mechanics	3-1-0	4	4
	BE110	Engineering Graphics	1-1-3	5	3
D	BE102	Design & Engineering	2-0-2	4	3
E, F (2/4)	CE 100	Basics of Civil Engineering	2-1-0	3	3
	ME 100	Basics of Mechanical Engineering	2-1-0	3	3
	EE 100	Basics of Electrical Engineering	2-1-0	3	3
	EC 100	Basics of Electronics Engineering	2-1-0	3	3
	CS 100	Computer Programming (Only for CSE & IT branches)	2-1-0	3	3
S (1/2)	PH110	Engineering Physics Lab	0-0-2	2	1
	CY110	Engineering Chemistry Lab	0-0-2	2	1
T (2/4)	CE110/ME110/ EE110/EC110	Basic Engineering Workshops	0-0-2 +	2	1
	CS 120	Computer Programming Lab (only for CSE & IT Branches)	0-0-2	2	1
U		U100 Language lab / CAD Practice/ Bridge courses/ Micro Projects etc	0-0-(1/2)	(1/2)	
				30	24/23
V		V100 Entrepreneurship /TBI/NCC/NSS/ Physical Edn. etc	0-0-2	2	Activity points

Note 1: Institutions can assign **two of four** of Basics of Engineering courses not already taken by the student in the previous semester and the corresponding Workshop courses in Semester 2. CS 100 Basics of Computer Programming & CS120 Computer Programming Lab are mandatory for Computer Science & Engineering and Information Technology branches. Other branches are not allowed to opt these courses.

Note 2: **For Course U**, the classes for which BE110 Engineering Graphics is offered under slot C may be divided into two batches and these batches shall attend CAD Practice lab & Language Lab in alternate weeks.

Note: The Curriculum for Semesters I and II 2015 is slightly modified. The modifications are highlighted in red colour. The modified curriculum will not affect failed students of 2015 batch

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Curriculum

for

B.Tech Degree

Semesters III to VIII

2016

Civil Engineering

BRANCH: *Civil Engineering*

SEMESTER - 3

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
CE201	Mechanics of Solids	3-1-0	4	B
CE203	Fluid Mechanics– I	3-1-0	4	C
CE205	Engineering Geology	3-0-1	4	D
CE207	Surveying	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
CE231	Civil Engineering Drafting Lab	0-0-3	1	S
CE233	Surveying Lab	0-0-3	1	T

Total Credits = 24   **Hours: 28/29**   **Cumulative Credits= 71**

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms andNumerical Methods	3-1-0	4	A
CE202	Structural Analysis- I	3-1-0	4	B
CE204	Construction Technology	4-0-0	4	C
CE206	Fluid Mechanics- II	3-0-0	3	D
CE208	Geotechnical Engineering- I	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
CE232	Materials Testing Lab I	0-0-3	1	S
CE234	Fluid Mechanics Lab	0-0-3	1	T

Total Credits = 23   **Hours 28/27**   **Cumulative Credits= 94**

BRANCH: *Civil Engineering*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE301	Design of Concrete Structures I	3-1-0	4	A
CE303	Structural Analysis- II	3-0-0	3	B
CE305	Geotechnical Engineering- II	3-0-0	3	C
CE307	Geomatics	3-0-0	3	D
CE309	Water Resources Engineering	3-0-0	3	E
	Elective 1	3-0-0	3	F
CE341	Design Project	0-1-2	2	S
CE331	Materials Testing Lab II	0-0-3	1	T
CE333	Geotechnical Engineering Lab	0-0-3	1	U

Total Credits = 23   **Hours: 28**   **Cumulative Credits= 117**

Elective 1:-   1. CE361   Advanced Concrete Technology

2. CE363   Geotechnical Investigation

3. CE365   Functional Design of Buildings

4. CE367   Water Conveyance Systems

5. CE369   Disaster Management

6. CE371   Environment and Pollution

7. CE 373   Advanced Mechanics of Materials

BRANCH: *Civil Engineering*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE302	Design of Hydraulic Structures	4-0-0	4	A
CE304	Design of Concrete Structures II	3-0-0	3	B
CE306	Computer Programming and Computational Techniques	3-0-0	3	C
CE308	Transportation Engineering- I	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
CE332	Transportation Engineering Lab	0-0-3	1	S
CE334	Computer Aided Civil Engineering Lab	0-0-3	1	T
CE352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23　　　　**Hours:27**　　**Cumulative Credits= 140**

Elective 2:-

　　　1. CE362　　Ground Improvement Techniques

　　　2. CE364　　Advanced Foundation Engineering

　　　3. CE366　　Traffic Engineering and Management

　　　4. CE368　　Prestressed Concrete

　　　5. CE372　　Engineering Hydrology

　　　6. CE374　　Air Quality Management

BRANCH: *Civil Engineering*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE401	Design of Steel Structures	4-0-0	4	A
CE403	Structural Analysis- III	3-0-0	3	B
CE405	Environmental Engineering- I	3-0-0	3	C
CE407	Transportation Engineering -II	3-0-0	3	D
CE409	Quantity Surveying and Valuation	3-0-0	3	E
	Elective 3	3-0-0	3	F
CE451	Seminar & Project Preliminary	0-1-4	2	S
CE431	Environmental Engineering Lab	0-0-3	1	T

Total Credits = 22   **Hours: 27**   **Cumulative Credits= 162**

Elective 3:-

1. CE461   Wave Hydrodynamics and Coastal Engineering

2. CE463   Bridge Engineering

3. CE465   Geo-Environmental Engineering

4. CE467   Highway Pavement Design

5. CE469   Environmental Impact Assessment

6. CE471   Advanced Structural Design

7. CE473   Advanced Computational Techniques and Optimization

BRANCH: *Civil Engineering*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE402	Environmental Engineering II	3-0-0	3	A
CE404	Civil Engineering Project Management	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
CE492	Project		6	S

Total Credits = 18   **Hours: 30**   **Cumulative Credits= 180**

Elective 4:-

    1. CE462   Town and Country Planning

    2. CE464   Reinforced Soil Structures and Geosynthetics

    3. CE466   Finite Element Methods

    4. CE468   Structural Dynamics and Earthquake Resistant Design

    5. CE472   Transportation Planning

    6. CE474   Municipal Solid Waste Management

ELECTIVE 5 (NON DEPARTMENTAL ELECTIVE COURSES)

(Note:- If a student has studied or chosen the elective course given within the brackets then the corresponding ND elective cannot be chosen)

1. AO482   FLIGHT AGAIST GRAVITY

2. AE482   INDUSTRIAL INSTRUMENTATION

3. AE484   INSTRUMENTATION SYSTEM DESIGN

4. AU484   MICROPROCESSOR AND EMBEDDED SYSTEMS

5. AU486   NOISE, VIBRATION AND HARSHNESS

6. BM482   BIOMEDICAL INSTRUMENTATION

7. BM484   MEDICAL IMAGING & IMAGE PROCESSING TECHNIQUES

8. BT461   DESIGN OF BIOLOGICAL WASTEWATER SYSTEMS

9. BT362   SUSTAINABLE ENERGY PROCESSES

10. CH482   PROCESS UTILITIES AND PIPE LINE DESIGN

11. CH484   FUEL CELL TECHNOLOGY

12. CS482   DATA STRUCTURES

13. CS484   COMPUTER GRAPHICS

14. CS486   OBJECT ORIENTED PROGRAMMING

15. CS488   C # AND .NET PROGRAMMING

16. EE482   ENERGY MANAGEMENT AND AUDITING

17. EE484   CONTROL SYSTEMS

18. EE486   SOFT COMPUTING

19. EE488   INDUSTRIAL AUTOMATION

20. EE494   INSTRUMENTATION SYSTEMS

21. EC482   BIOMEDICAL ENGINEERING

22. FT482   FOOD PROCESS ENGINEERING

23. FT484   FOOD STORAGE ENGINEERING

24. FT486   FOOD ADDITIVES AND FLAVOURING

25. IE482   FINANCIAL MANAGEMENT

26. IE484   INTRODUCTION TO BUSINESS ANALYTICS

27. IE486   DESIGN AND ANALYSIS OF EXPERIMENTS

28. IE488   TOTAL QUALITY MANAGEMENT

29. IC482   BIOMEDICAL SIGNAL PROCESSING

30. IT482   INFORMATION STORAGE MANAGEMENT

31. MA482   APPLIED LINEAR ALGEBRA

32. MA484   OPERATIONS RESEARCH

33. MA486   ADVANCED NUMERICAL COMPUTATIONS

34. MA488   CRYPTOGRAPHY

35. ME484   FINITE ELEMENT ANALYSIS (CE 466 FINITE ELEMENT METHODS)

36. ME482   ENERGY CONSERVATION AND MANAGEMENT

37. ME471   OPTIMIZATION TECHNIQUES (CE 473 ADVANCED COMPUTATIONAL TECHNIQUES AND OPTIMISATION)

38. MP482   PRODUCT DEVELOPMENT AND DESIGN

39. MP469   INDUSTRIAL PSYCHOLOGY & ORGANIZATIONAL BEHAVIOUR

40. MT482   INDUSTRIAL SAFETY

41. MR482   MECHATRONICS

42. FS482   RESPONSIBLE ENGINEERING

43. SB482   DREDGERS AND HARBOUR CRAFTS

44. HS482   PROFESSIONAL ETHICS

COLLEGE BUS DETAILS

Bus No.1

Cherupuzha—Manjakkad—Peringala—Therthalli—Rayarom—Nellippara—Alakkode—Karuvanchal—Vayattuparamba—Pothukundu—Naduvil—Chempanthotti—Karayathumchal—Puranjaan—Chemperi—VJEC

Bus No.2

Peravoor—Kakkayangad--Haji road—Iritty—Thamthode—Puthusseri—Chulliyode—Ulikkal-Nuchiyad—Chamathachal—Payyavoor—VJEC

Bus No.3

Kanhirangad—Poovam--Thettunna road—Oduvally—Vilakkannur—Naduvil—Mandalam—Venkunnu—Pulikurumba—Chemperi—VJEC

Bus No.4

Mambaram—Vannanmetta—Anjarakkandy—Panayathamparamba—Chalode—Nayattupara—Kolappa—Kottoor—Koottumugham—VJEC

Bus No.5

Payyannur—Ezhilode—Pilathara—Pariyaram—Embate—Kuppam—VJEC

Bus No.6

Melechovva—Varam—Echoor—Koodali—Irikkoor—Peruvalathuparamba—Kaniyarvayal—VJEC

Bus No.7

Kannur—Puthiyatheru—Kolmetta—VJEC

Bus No.8

Sarang junction—Valapattanam—Mangad—Dharmasala—Kolmetta—VJEC

Bus No.9

Kannur—Melechovva—Varam—Chalode—Irikkur—Peruvalathuparamba—VJEC

Bus No.10

Bekkalam—Thaliparamba—Kurumathur—Valakkai—Chengalai—Sreekandapuram—VJEC

Bus No.11

Chalode—Nayattupara—Kolappa—Kottoor—koottumugham—VJEC

BUS TIMINGS
(from VJEC)

KANNUR		THALIPARAMBU		CHERUPUZHA		KUDIYANMALA		MANANTHAVADY		IRITTY	
6.40	AM	5.40	AM	6.30	AM	4.00	AM	8.20	AM	6.15	AM
7.40	AM	6.40	AM	7.15	AM	8.50	AM	8.45	AM	7.30	AM
10.05	AM	7.00	AM	7.45	AM	11.05	AM	4.30	PM	7.45	AM
1.10	PM	7.45	AM	8.15	AM	12.35	PM	5.00	PM	8.15	AM
3.30	PM	8.25	AM	9.35	AM	2.05	PM			8.40	AM
4.15	PM	8.35	AM	10.10	AM	3.25	PM			8.50	AM
		9.00	AM	11.15	AM	5.15	PM	**KASARGOD**		9.30	AM
VELLARIKUNDU		9.30	AM	11.40	AM	5.40	PM	7.15	AM	10.00	AM
9.00	AM	9.45	AM	12.35	PM	5.50	PM	9.30	AM	10.25	AM
9.30	AM	10.10	AM	1.20	PM	6.30	PM	1.15	PM	10.45	AM
11.30	AM	10.40	AM	2.20	PM					11.00	AM
3.00	PM	11.00	AM	3.05	PM	**CHEEKKAD**		**ETTUPARA**		11.20	AM
		11.15	AM	3.30	PM	5.50	PM	7.45	AM	11.45	AM
KONNAKKAD		11.50	AM	3.50	PM			8.10	AM	12.30	PM
7.50	AM	12.25	PM	4.00	PM	**MANIPAL**		8.45	AM	1.10	PM
2.10	PM	12.45	PM	4.25	PM	9.30	AM	9.40	AM	1.40	PM
3.50	PM	1.10	PM	5.15	PM			9.50	AM	2.20	PM
		1.30	PM	6.20	PM			11.50	AM	3.30	PM
PANATHUR		2.10	PM					12.30	PM	3.45	PM
1.10	PM	3.15	PM			**SULTHAN BATHERY**		2.00	PM	4.20	PM
4.00	PM	3.35	PM			3.00	PM	3.10	PM	4.40	PM
		3.45	PM					4.00	PM	5.00	PM
		4.10	PM			**PALA**		4.50	PM	5.45	PM
		4.15	PM	**BANGLORE**		5.20	PM	5.50	PM	6.00	PM
THALASSERY		4.25	PM	7.30	AM	5.30	PM	6.35	PM	7.30	PM
3.20	PM	4.50	PM	11.10	AM	5.45	PM	7.45	PM	9.00	PM
6.00	PM	5.30	PM	7.30	PM	6.00	PM	8.15	PM		
1.00	AM	6.25	PM	9.30	PM	7.00	PM	9.10	PM		

CIVIL ENGINEERING LABORATORY FACILITIES