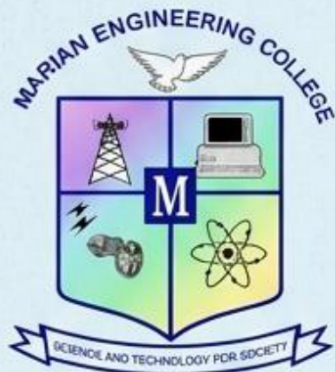




MARIAN

ENGINEERING COLLEGE (AUTONOMOUS)

Minority Institution run by the Latin Archdiocese of Trivandrum

STUDENT HANDBOOK (2026-27)

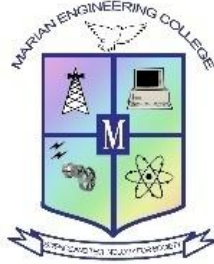


MARIAN
EDU CITY



Trivandrum, Kerala, India

MARIAN ENGINEERING COLLEGE (AUTONOMOUS)



Marian Educity , Kazhakuttom
Thiruvananthapuram-695582
Ph. 0471-2707111, 9495707111, 9495707222

Email mail@marian.ac.in

Web: www.marian.ac.in

STUDENT HAND BOOK 2026-27

‘The Fear of the Lord is the beginning of Wisdom’

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INSTITUTIONAL INFORMATION

PROFILE

The Marian Engineering College, Menamkulam, Kazhakuttom, Thiruvananthapuram established in August 2001, is a private self-financing professional college managed by the Trivandrum Social Service Society under the Latin Catholic Arch diocese of Trivandrum .The College is approved by All India Council for Technical Education, New Delhi and was affiliated to the Kerala University from 2001 to 2014 admissions and to the A.P.J Abdul Kalam Technological university, Kerala from the 2015 admissions onwards. The University Grants Commission (UGC) has conferred autonomous status upon the college for a period of three years, starting from the 2026–27 academic year.

VISION

To be an institution offering quality technical education and promoting research with strong ethical values for public good.

MISSION

To mould the young men and women into technologically up to date, socially conscious and morally sound individuals by providing an inspiring environment of learning for the welfare of the society.

QUALITY POLICY

Marian Engineering College is committed to the transformation of young women and men into responsible citizens through Engineering education, conforming to international standards, which is planned to be achieved through efficient use of resources and full involvement of all staff members working as a team, constantly monitored by Management team for continuous improvement in the expected outcome.

GOVERNING BODY

The governance of the college is by a Governing body constituted by the Latin Arch Diocese of Trivandrum. The patron of the Governing Body is His Grace Major Arch Bishop of Trivandrum Dr. Thomas J. Netto. The major policy decisions of the College are taken by the Governing Body. Principal is the ex-officio secretary of the Governing Body. These policy decisions are made operational by the College Council. There are various committees like Construction committee, Selection committee, etc constituted by the Governing body from time to time for the smooth functioning of the College. The members of the Governing Body are shown below.

Governing Bodyl (2025-26)

His Grace Most Rev. Dr. Thomas J. Netto	Metropolitan Archbishop of Trivandrum and the Patron
His Excellency Most Rev. Dr.Christudas Rajappan	Auxiliary Bishop of Trivandrum, Vice Patron
Msgr. Eugene H. Periera	Vicar General, Archdiocese of Trivandrum
Rev. Fr. Ashlin Jose	Secretary, T.S.S.S
Mr. Sreekumar V.	CEO, TATA ELXSI, Technopark, Trivandrum
Rev. Fr.Dr.A.R John	Managing Director, MEC
Dr. Samson A.	Executive Director, MEC
Sri Sunil Kumar S	Joint Secretary, Higher Education Department
Dr Suneesh S	Controller of Examinations, KTU
Dr. Rajasree M S	Former VC KTU, CEO TrEST Research Park, Trivandrum
Rev. Fr. Sibin George	Assistant professor & Warden
Sri Suresh Kumar M	AO, MEC
Dr. Ajit Prabhu V	Principal MEC, (Member Secretary)

INTERNAL QUALITY ASSURANCE CELL (IQAC)

The internal quality Assurance Cell gives advice and guidelines to the administration to maintain the high quality work in academics and administration. The cell monitors the quality aspects off the entire academic and non-academic activities of the institution. The cell works on various accreditation aspects. IQAC has been constituted in Marian Engineering College under the Chairmanship of the Head of the institution with heads of important academic and administrative units and a few teachers and a few distinguished educationists and representatives of local management and stakeholders as members. The composition of the IQAC is as follows:

Chair Person	Dr Ajit Prabhu V, Principal
Management Representative	Rev. Father Dr. AR John
Members :	Dr R Shreelekshmi , Dean (Academics)
	Dr. Sheeja Augustine, (Professor : Dept. of CSE) KTU Coordinator
	Dr. Arun Kumar V (Asso. Professor : Dept. of ME) NBA Coordinator
	Ms Remola Joy (Asso. Professor : Dept. of ECE) , AICTE Coordinator
	Ms. Aswathy Sasikumar (Asst Professor ;Dept of CE)
	Ms Nisha J R (Asst. Professor : Dept. of CSE)
	Sri Suresh Kumar M Administrative Officer
Nominee from Industry	Mr George John Morris, Managing Director, "Sea Boii"
Nominee from Community	Advocate Mary John
Member Secretary	Dr Vijayalekshmy S, IQAC Coordinator

INTERNAL AUDIT CELL

Internal Audit Cell (IAC) conducts internal academic audit and produces the required documents and records to the External Auditor on demand .IAC is also responsible for uploading monthly report , annual report &any other data required to the external audit and/or the APJ Abdul Kalam Technological University.

Coordinator: Dr.Sheeja Augustin A., Professor(CSE), Mob:9446614773

PROGRAMMES OFFERED

B. Tech. Degree

SL.NO.	PROGRAMME	INTAKE
1	Civil Engineering (CE)	60
2	Artificial Intelligence & Machine Learning (AH)	60
3	Computer Science & Engineering (CSE)	180
4	Electrical & Electronics Engineering (EEE)	30
5	Electrical & Computer Engineering(EL)	30
6	Electronics & Communication Engineering (ECE)	60
7	Electronics & Computer Engineering (ES)	60
8	Mechanical Engineering (ME)	60

M.Tech Degree

SL.NO.	SPECIALISATION	INTAKE
1	Geotechnical Engineering (CE)	6

MBA Degree

SL.NO.	SPECIALISATION	INTAKE
1	Master of Business Administration	60

MCA (Integrated) Degree

SL.NO.	SPECIALISATION	INTAKE
1	Master of Computer Applications(Integrated)	60

NATIONAL BOARD OF ACCREDITATION (NBA)

Marian Engineering College has been accredited by the National Board of Accreditation (NBA) for its Civil Engineering, Mechanical Engineering, Electronics and Communication Engineering & Electrical & Electronics programmes. Additionally, the Computer Science & Engineering Department has applied for accreditation and the NBA Visit is scheduled in October 2026. This recognition reflects the college's commitment to providing high-quality technical education and maintaining rigorous academic standards across these key disciplines.

FACILITIES

CENTRAL COMPUTING FACILITY (CCF)

The Central Computing Facility was started in 2013 and has been setup in the administrative block. It acts as a central hub for Online tests , Aptitude training, Web Surfing and conducting Workshops. The Dept of Computer Science and Engineering manages the functioning of CCF. It includes a total of 108 computers with printers, UPS systems and latest software's. The whole systems are networked and Internet connectivity is provided. There are Two Internet Service Providers, BSNL and Asianet. BSNL is providing 600 Mbps broadband and 20 Mbps leased line connection and Asianet is providing 300 Mbps leased line connection. The CCF is open from 8:30am to 6:00 pm on all working days.

LIBRARY

The library is well stocked with good number of books related to various branches of Engineering and related disciplines. The college library has over 9,457 titles and 2,3875 volumes of books. The library is subscribing 19 international journals and 5 national journals in hard format and various online journals through DELNET & KTU-KNIMBUS. The E-resources of the library include nearly 1600 CDs of books and journals. The library is fully automated with SOUL software, and OPAC facility. The library is managed by fully qualified and experienced library professionals. Marian Engineering college is also part of National Digital Library of India (NDLI) and the NDLI club of Marian Engineering College is effectively functioning in our campus.

HOSTELS

Hostels for boys & girls are provided by the college in the campus itself. Both the hostels have spacious rooms & Mess halls. Separate facilities for studying are provided in both the hostels. The ladies hostel accommodates 150 inmates and is managed by Rev. Sisters. The men's hostel can accommodate 107 inmates and is managed by Bursar of the College.

CAFETERIA & CANTEEN

The college canteen functioning in the campus can accommodate more than 200 students at time. The canteen adheres to the highest degrees of quality, hygiene and provides the students with tasty food at

affordable rates. Coffee, Tea and Snacks are provided in the main building exclusively for first year students. In order to meet the demand during rush hours, a cafeteria is also functioning in the campus.

TRANSPORT

The College is providing efficient transportation facilities for the staff and students to various locations in and around the city. 21 buses are plying in different routes as given below:

COLLEGE BUS ROUTES

Bus No	Route
1	To Balaramapuram (via Bypass)
3	To Vellayambalam (via Attankulangara)
4	To Varkala (Via Anchuthengu)
7	To Attingal (via Puthukuruchy)
8	To Mukkola (Via Poonthura)
10	To Vellayambalam (Via Sreekaryam)
11	To Muttada (Via Pothencode)
12	To Chirayinkeezhu (Via murukkumpuzha)
13	To St. Joseph's HSS (via Medical College)
14	To Muttada (Via Kariam)
15	To Vellayambalam (via Vattiyoorkavu)
16	To Nedumangadu (Via Ulloor)
17	To Vellayambalam (Vis Poojappura)
18	To Attingal (Vis Mangalapuram)
19	To Mangalapuram (Via Pothencode)
20	To Pravachambalam (Via Kamaleswaram)
21	To Kattakada (via Thirumala)
22	To Paripally (Via Attingal)
23	To Uchakkada (Via Vizhinjam)
24	To Neyyatinkara (Via Karamana)
25	To Kilimanoor (Via Venjaramoodu)

College buses start at 7.00 am from the specified starting points and leave the campus at 4.15 pm

Bus Coordinator: Mr. Antony Xavier J (Mob: 9188942808)

SPORTS & FITNESS

Physical Education is an integral part of Marian Engineering College and committed to the promotion of Health oriented as well as Competition oriented Physical Activities.. Since its establishment, the students have been participating in inter collegiate and other major sports activities at university, state and national level. The Physical Education department offers facilities for sports activities like Athletics, Football, Cricket, Badminton, Table Tennis, Chess, Volleyball, Basketball and Fitness. The college offers sports amenities including a Basketball Court in outdoor, a Football field, indoor Shuttle Badminton courts, Cricket ground, Volleyball court and Table Tennis facilities. In addition, an advanced gymnasium is established for fitness related activities. The college offers systematic training for various games by qualified coaches. Besides Interdepartmental competitions, Marian Engineering College organizes Marian Tournaments for various games for inter collegiate students. The students have brought memorable moments excelling in inter collegiate competitions and bringing laurels to the

college. The department places on record the disciplined, dedicated and determined effort of all the students for keeping the college flag flying.

CHAPEL

College has a chapel in the admin block, which can be used by staff and students.

POST OFFICE

The nearby Post Office is Kazhakkootam post office (Pin: 695582) which has speed post and electronic fund transfer facility.

GUEST ROOM FOR VISITING FACULTY

There are Guest rooms for faculty coming for short term courses/ seminars/conferences etc. within the campus.

CLASS TIMINGS

The class timing is from 9 am to 4 pm with a lunch break of 45 minutes from 12.15pm to 1 pm for senior classes and 1.15 pm to 2.00pm for first year students.

ACADEMIC INFORMATION

CLASS ADVISORY SYSTEM

Faculty members are assigned as advisors for each student 1: 20 is the normal ratio maintained between faculty and students.

RESPONSIBILITIES OF FACULTY ADVISORS

1. To guide and help students on academics
2. To monitor their progress in academics and advise them
3. counsel them and hand-hold them in any difficulty
4. To discuss academics, attendance and disciplinary matters.
5. Maintaining students records including documentation of their activities and regularly updating of the same
6. Consolidation of the monthly attendance and informing parents of students having shortage of attendance
7. Intimate the parents about result of exams, PTA meeting etc.,
8. Act as the interface of the department with the class.
9. To convene class committee meetings.
10. Any other matter entrusted by HOD/PRINCIPAL

LIST OF FACULTY ADVISORS :B.TECH, M.TECH, MBA &IMCA PROGRAMMES

ADVISORS				
Class	2026-30 (First Year)	2025-29 (Second Year)	2024-28 (Third Year)	2023-27 (Fourth Year)
CE	Asha Davood, (9746155556) Greeshma T (9037676767)	Ms. Revathy VS (8547197571) Kannan K (9495636362)	Deepthi Dennison, (8848807762) Renju C M, (9400456728)	Sanobia B S (8943873877) Aswathy Sasikumar (8547333453)
EEE	Swathy Soman, (9645884877)	Valsa Basil (9447962040) Deena Paul (7994270120)	Thangathamarai N G S (8547727262) Rinu Joe B S (6238574603)	Geena S (9446105551)
EL	Arathy S Nair, (8078297607)	—	—	—
ME	Dr. Arunkumar V, (9895744027) Maneesh T, (9447715641)	Sonia S Raj (9400913224) Rajaneesh R Chandran (7012144632)	Deepak Peter, (9995209389) Pramod Raj T P, (9495344863)	Amjith L R (9946289978)
CSE (R1)	Harsha T, (9400162236) Dr. Sindhu Chandrasekharan, (9566853790)	Swapna H (9746104785) Nishley E Joseph (9485395518) Binsi P (7559931868)	Keerthi Krishnan, (9961293932) Aswathy G S (8848651247) Shakhy PS (9497797726)	Dr,Sheeja Augustine A (9446614773) Sunitha S (9847897913) Vijayalekshmi SV (8943502736)
CSE (R2)	Reeja S L, (9447553962) Aiswarya I P, (9605105541)	Nisha J R (9447963312) N Reshma Pillai (9207493015) Rahul Ajithkumar (8848892774)	Dr.Anusha B (9489890950) Ms Rashmi MK (9744381281) Ms Revathy B R (9539922617)	Dr. Mercilin Francis (9495631330) Mary Lisa Leenuse (9562852886) Julie Chrisy (7902591963)
CSE (R3)	Renetha J B, (9633658668) Diphonsa Uvanse .U.V, (8129279003)	Dhanya L (9496547528) Jithin Aniyankunju (9495816858) Ansu Elizabeth John (9446871722)	Nitha L Rozario, (9847265185) Sreekutty Vinod (8289853264) Hima G S (9496352018)	-----
ECE	Ramola Joy P, (9447551959) Subha P S (9656772914)	Minnu Jayan C (8848905799) Glastin Y V (9495556320) Vidharaj K (8547356715)	Evankumar G, (9846601808) Sreelakshmi A (956708272)	Dhanya Mathew (889239518) Sreena V G (9895930489)
AH	Jyotsna A, (9895321711) Bhagya Lekshmi H R, (8089871852)	Veena Ramachandran (8086778820) Karthika Surendran (9446037299)	Diana Walts (9961968767)	Nisha Soman (7907473630) Aswathy T K (9961100606)
ES	Mary Sunitha, (9605244673) Nurul Hidayat S, (9895898054)	Hema S Mahesh (9539457792) Lorinda E (7736360095) NM Hema Devi (9080215585)	Ann Mathew, (9447553982) Ajana J (9446456642)	Preetha S L (8075666078) Simi M S (9645251695)
MTECH	Dr. Reshmi D S (2026-28) (9495823722)		-----	
MBA	Reshma M B(2026-28 Batch)(89215 32232)		Akhila MS(2025-27 Batch)(9539072882)	
IMCA	Mr. Vivek V.V,(2026-31 Batch)(7012802773)		-----	

AWARDS

Marian engineering college recognizes promotes the talents, effort and excellence of students by awarding them annually with certificates, medals, mementoes and cash prizes.

MARIAN TECHNOLOGY AND INNOVATION CONTEST(MTIC) AWARD

In order to inculcate a spirit of innovation and to promote Research and Development activities among our students, The Research and Development wing at Marian Engineering College conducts Marian Technology and Innovation Contest (MTIC) every year. The contest is organized for B.Tech final year students of Marian Engineering College for all Seven departments (AH,CE, CSE, ECE, ES, EEE& ME). Each Department Head will shortlist FIVE innovative projects and forward to the Research and Development wing for evaluation by a team of external experts. The short listed teams have to present it before a panel of external experts. The best projects in each department recommended by the external experts will receive a cash prize.

GENERAL REGULATIONS

CODE OF CONDUCT FOR STUDENTS

1. The working hours are from 9.00 am to 4.00pm. Students should not arrive late in to the class room.
2. B.Tech students should wear the complete uniform, with their photo identity cards, on all days.
3. Boys should be clean shaven with their haircut neat and short.
4. Students are to wear shoes/footwear with back straps to college. They are required to compulsorily wear shoes to all laboratories for safety purposes.
5. Students are expected to be polite in behavior. They should greet their teachers when they first meet them for the day. When the teacher enters the classroom the students should stand up, and remain standing until the teacher takes his / her seat or allows them to sit down.
6. Mis behaviour towards girl students, use of threat or violence against members of the staff or fellow students will be considered as a Very serious case of misconduct.
7. Students should use the property of the institution with care and keep the buildings and the premises clean. In case material damage to the institutional property is caused by indifference or deliberate action, compensation, as decided by the authorities, should be paid by the student.
8. Smoking and consuming alcoholic drinks and illegal drugs are strictly prohibited in the campus and hostels. Damaging furniture, defacing the walls, repeated absence from the class without leave, misbehavior in class, general neglect of studies and of other duties will be considered as serious offences.
9. Ragging or any type of misconduct towards any student will be considered as criminal offence and will be immediately reported to the police. Perpetrators will not be permitted to continue their studies.
10. Politics is banned in the college campus including the hostels.

LIBRARY RULES

1. The library is open from 8.00 am to 6.00 pm on all working days
2. Strict silence should be observed in the library and the reading room.
3. Students should bring their identity cards when they come to the library.
4. Books will be issued only on production of identity cards.
5. Books and other personal belongings should not be taken in to the library.
6. Students can borrow four books at a time from the library and keep them for a period of 14 Days without fine. If anybody fails to return the book on time a fine will be imposed at the rate of Rs1/- per day for the next 14 days, and there after the fine will be doubled.
7. All the books taken by the faculty members must be returned at the end of the semester. Lost book has to be reported to the library staff as soon as possible. Lost books will have to be replaced or the cost of the book will be collected. The cost of the lost books will be assessed as multiples for each decade according to the year of publication of the book.
8. If a member damages a book or periodical, he/she will have to replace it or pay the cost. In case one book of a set is damaged, the whole set must be replaced.

COMPUTER USAGE POLICY

1. Keep the footwear outside the lab.

2. Pen drives and Mobile phones are not allowed inside the lab.
3. Maintain complete silence inside the lab.
4. Place the chair and table at its proper place and should be kept neat before leaving the lab.
5. Food items are not allowed inside the lab.
6. Students are allowed to use the allotted system only.
7. Students are not allowed to roam around inside the lab.
8. Students should take permission from concerned staff in case they want to do another work other than the allotted work.

BUS FACILITY RULES

1. Students entering the bus must have their bus pass with them.
2. Enter the bus only after showing the bus pass to allotted driver or doorman.
3. Girls have to be seated in the front rows, Staffs in the middle rows and boys in the last rows of the bus.

RESPONSIBLE USE OF MOBILE PHONES ON CAMPUS

1. Students shall use mobile phones responsibly and in a manner that upholds academic discipline and the dignity of the institution.
2. Use of mobile phones during class hours is strictly prohibited, unless specifically permitted by the faculty member for an academic activity.
3. Mobile phones shall be kept in silent mode or switched off during classes, examinations, meetings, seminars and other academic activities.
4. Students shall not allow mobile phone use to interfere with teaching, learning or other academic proceedings.
5. Recording videos, taking photographs or creating reels inside classrooms during academic hours without prior permission is prohibited.
6. Students shall not record, photograph or share images, videos or audio recordings of faculty members, staff or fellow students without appropriate permission and consent.
7. Creating, uploading or circulating reels, videos, photographs or other content that violates the privacy, dignity or reputation of individuals or the college is strictly prohibited.
8. Students shall not use mobile phones for cyberbullying, harassment, intimidation, defamatory content or any other activity that adversely affects the campus environment.
9. Mobile phones may be used outside class hours in designated areas, provided such use does not disturb academic activities or other members of the campus community.
10. Students shall not use mobile phones in laboratories, workshops, libraries, examination halls or other restricted areas contrary to the instructions issued by the concerned authorities.
11. Mobile phones shall not be used for cheating, accessing unauthorised information or engaging in any form of malpractice during examinations or assessments.
12. Students shall comply with any specific instructions issued by faculty members, examination authorities or the college administration regarding mobile phone use.

Emergency and Academic Use

13. Mobile phones may be used during emergencies, subject to the circumstances and instructions of the college authorities.
14. Academic use of mobile phones may be permitted by the concerned faculty member when required for learning activities, online assessments or other authorised academic purposes.

Violation and Disciplinary Action

15. Any violation of these rules shall be viewed seriously and may invite disciplinary action in accordance with the applicable college regulations.

16. Students who record or circulate content without permission, or engage in misuse affecting the privacy, dignity or reputation of others, may be subject to appropriate disciplinary proceedings.
17. Repeated or excessive misuse of mobile phones may compel the Management to consider stricter restrictions, including a complete ban on the possession or use of mobile phones on campus, subject to applicable regulations.
18. Students shall cooperate with the college authorities in maintaining discipline, privacy, a conducive learning environment and the reputation of Marian Engineering College.

Responsibility of Students and Parents

19. All students are expected to read, understand and strictly comply with these rules.
20. Parents are requested to ensure that their wards understand the importance of responsible mobile phone use and comply with the college regulations.

GENERAL INFORMATION

COLLEGE MANAGEMENT

NAME	DESIGNATION	CONTACT NO.
Rev. Fr.Dr.A.R John	Managing Director	9895092479
Rev. Fr. Sibin George	Bursar	8590698167
Dr. A. Samson	Executive Director	9447324844
Dr. Ajit Prabhu V	Principal	9446848086
Dr.Abdul Nizar M	Controller of Examinations	9446035072

ACADEMIC AFFAIRS

NAME	DESIGNATION	CONTACT NO.
Dr. R Shreelekshmi	Dean : Academics	9446170432
Dr. Rani V	Dean : Research & Consultancy	9847077477
Dr. Manoj M	Dean : Institute Industry Collaboration	9847321011
Dr. Amjith L R	Dean : Student Affairs	9946289978
Ms. Minnu Jayan C	Deputy Controller of Examinations	8590877410
Mr. Kannan K	Deputy Controller of Examinations	9495636362

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SL.No	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms. Vinitha B Elza	Asso. Professor & HoD	M.Tech	9846932823
2	Dr. M. Manoj	Professor & HoD in Charge ES Dept.	Ph.D	9847321011
3	Dr. Shanthi K J	Professor(Adjunct)	Ph.D	8618911483
4	Ms. Ramola Joy	Associate Professor	M.E	9447551959
5	Dr.R.Radeep Krishna	Associate Professor	Ph.D	9188455781
6	Ms. Subha P S	Associate Professor	M.E	9656772914
7	Ms. Minnu Jayan C	Assistant Professor	M.E	8590877410
8	Mr. Evankumar G	Assistant Professor	M.E	9846601808
9	Ms. Mary Sunitha	Assistant Professor	M.E	9605244673
10	Ms. Simi M S	Assistant Professor	M.E	9645251695
11	Mr. Glastin Y V	Assistant Professor	M.E	6238259397
12	Ms Sreena V G	Assistant Professor	M.Tech	9895930489
13	Ms Dhanya Mathew	Assistant Professor	M.Tech	8089239518

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

SL.NO.	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Prof. R. Harikumar	Professor & HoD	M.Tech	9446334774
2	Dr. Francis M Fernandez	Professor(Adjunct)	Ph.D	9074866202
3	Dr. Vijayalekshmy S	Professor	Ph.D	9446476994
4	Ms. Valsa Basil	Assistant Professor	M.Tech	9447962040
5	Ms. ThangaThamarai NGS	Assistant Professor	M.Tech	8129441134
6	Ms. Geena S	Assistant Professor	M.Tech	9446105551
7	Ms Rinu Joe	Assistant Professor	M.Tech	6238574603
8	Ms Swathy Soman	Assistant Professor	M.Tech	9645884877
9	Ms Deena Paul	Assistant Professor	M.Tech	7994270120
10	Ms. Swathy S Lal	Assistant Professor	M.Tech	9447666367
11	Ms. Arathy S Nair	Assistant Professor	M.Tech	8078297607

DEPARTMENT OF CIVIL ENGINEERING

SL.No	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Narayanan S	Professor	Ph.D	9961140744
2	Dr. Unnikrishnan N	Professor (Adjunct)	Ph.D	9447411584
3	Dr. Rani V.	Asso. Professor	Ph.D	9847077477
4	Dr. Reshmy D S	Asso. Professor & HoD	Ph.D	9495823722
5	Ms. Greeshma T	Assistant Professor	M.Tech	9037676767
6	Ms. Renju C M	Assistant Professor	M.Tech	9400456728
7	Ms Asha Davood Z	Assistant Professor	M.Tech	9746155556
8	Ms. Aswathy Sasikumar	Assistant Professor	M.Tech	8547333453
9	Ms. Sanobiya B S	Assistant Professor	M.Tech	8943873877
10	Ms. Deepthy Dennison	Assistant Professor	M.Tech	8848807762
11	Mr. Kannan K	Assistant Professor	M.Tech	9495636362
12	Ms. Revathy V S	Assistant Professor	M.Tech	8547197571
13	Ms. Karuna P	Assistant Professor	M.Tech	9746451387

DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING

SL.No	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Suresh Kumar Egeriose	Professor(Adjunct)	Ph.D	9747917931
2	Ms. Nurul Hidaya S	Assistant Professor	M.E	9895898054
3	Ms. Preetha S L	Assistant Professor	M.E	8075666078
4	Ms. Ann Mathew	Assistant Professor	M,Tech	9447553982
5	Ms. Hema S Mahesh	Assistant Professor	M.Tech	9446564760
6	Ms. Lorinda E	Assistant Professor	M.E	7736360095
7	Ms. N M Hema Devi	Assistant Professor	M.Tech	9080215585
8	Ms Sreelakshmi A	Assistant Professor	M.Tech	9567082725
9	Ms Ajana J	Assistant Professor	M.Tech	9446456642
10	Ms Vidyaraj K	Assistant Professor	M.Tech	8547356715

DEPARTMENT OF COMPUTER SCIENCE &ENGINEERING

SL.N O	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Abdul Nizar M	Controller of Examinations	Ph.D	9446035072
2	Dr. Shreelekshmi R	Professor & HOD	Ph.D	9446170432
3	Dr. Sheeja Agustin	Professor	Ph.D	9446614773
4	Ms. Keerthi Krishnan	Associate Professor	M.E	9961293932
5	Ms. Sunitha S	Assistant Professor	M.Tech	9847897913
6	Dr. Mercelin Francis	Associate Professor	Ph.D	9495631330
7	Ms. Reeja S L	Assistant Professor	M.E	9447553962
8	Ms. Swapna H	Assistant Professor	M.Tech	9746104785
9	Ms. Nisha J R	Assistant Professor	M.Tech	9447963312
10	Ms. Nitha L Rozario	Assistant Professor	M.Tech	9847265185
11	Ms. Nishley Elizebth Joseph	Assistant Professor	M.E	9495395518
12	Ms. Dhanya L	Assistant Professor	M.E	9496547528
13	Ms. Harsha T	Assistant Professor	M.Tech	9400162236
14	Ms. Binsi P	Assistant Professor	M.E	7559931868
15	Ms. Aiswarya I P	Assistant Professor	M.Tech	9605105541
16	Ms. Mary Lisa Leenuse	Assistant Professor	M.Tech	9562852886
17	Dr. Anusha B	Assistant Professor	Ph.D	9489890950
18	Ms. Aswathy G S	Assistant Professor	M.Tech	9400717307
19	Ms Sreekutty S Vinod	Assistant Professor	M.Tech	8289853264
20	Ms. Renetha J B	Assistant Professor	M.Tech	9633658668
21	Ms. Rashmi M K	Assistant Professor	M.Tech	9048012074
22	Ms. Revathi B R	Assistant Professor	M.Tech	9539922617
23	Ms. Shakhy P S	Assistant Professor	M.Tech	9497797726
24	Ms. Vijaya Lekshmi S V	Assistant Professor	M.Tech	8943502736
25	Ms. Rojitha Abdulla	Assistant Professor	M.Tech	9995100989
26	Ms Diphonsa Uvanse U V	Assistant Professor	M.Tech	8129279003
27	Dr. Sindhu Chandra Sekharan	Associate Professor	Ph.D	9566853790
28	Mr. Jithin Aniyankunju	Assistant Professor	M. Tech	9495816858
29	Ms..Julie Christy	Assistant Professor	M. Tech	7902591963
30	Ms. N Reshma Pillai	Assistant Professor	M. Tech	9037140594
31	Ms. Hima K.G	Assistant Professor	M. Tech	9496352018
32	Ms. Ansu Elizebeth John	Assistant Professor	M. Tech	9446871722
33	Mr. Rahul Ajithkumar	Assistant Professor	M. Tech	8289835752

DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

SL. NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Prof. Balu John	Professor & HoD	M.E	9895259420
2	Dr. Aswathy S U	Professor	Post Doc	9447798829
3	Ms. Nisha Soman	Assistant Professor	M.Tech	7907473630
4	Ms. Aswathy T K	Assistant Professor	M.Tech	9961100606
5	Ms. Aswathy A L	Assistant Professor	M.Tech	9961860283
6	Ms. Neethu Akkarapatty	Assistant Professor	M.Tech	9400453390
7	Ms. Veena Ramachandran L	Assistant Professor	M. Tech	8086778820
8	Ms. Karthika Surendran	Assistant Professor	M. Tech	9446037299
9	Ms. Diana Walts	Assistant Professor	M.Tech	9961968767
10	Ms Jyotsna A	Assistant Professor	M.Tech	9895321711
11	Ms. Bhagyalekshmi H R	Assistant Professor	M. Tech	8089871852

DEPARTMENT OF MECHANICAL ENGINEERING

SL. NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Ajit Prabhu V	Principal	Ph.D	9446848086
2	Dr. A. Samson	Executive Director	Ph.D	9447324844
3	Dr. Ajith PM	Professor & HOD	Ph.D	9495547576
4	Dr. C. R. Berlin Selva Rex	Professor	Ph.D	9442304984
5	Mr. Arun.J	Associate Professor & First Year Coordinator	M.E	8547358668
6	Mr. Ullas Innocent Raj	Associate Professor	M.Tech	9207195624
7	Dr. Arun Kumar V	Associate Professor	Ph.D	9895744027
8	Dr. Sonia S Raj	Associate Professor	Ph.D	9400913224
9	Mr. Rajaneesh R Chandran	Assistant Professor	M.E	9496813130
10	Dr. Amjith.L.R	Assistant Professor	Ph.D	9946289978
11	Mr. Maneesh T	Assistant Professor	M.E	9447715641
12	Mr. Rahul R S	Assistant Professor & PRO	M.E	9495355925
13	Mr. Pramod Raj T P	Assistant Professor	M.Tech	9495344863
14	Mr. Deepak Peter	Assistant Professor	M.Tech.	9995209389

MASTER OF BUSINESS ADMINISTRATION

SL. NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Shibulal A L	Professor & HoD	Ph.D	9847425550
2	Ms. Saranya Sathyanesan	Assistant Professor	MBA/PGDM	7034662740
3	Mr. Ninu P John	Assistant Professor	MBA	95390 77780
4	Ms Akhila M S	Assistant Professor	MBA	95390 72882
5	Dr.Sarada Gopalakrishnan	Associate Professor	MBA, Ph.D	94454 88920
6	Dr. Swothi S	Assistant Professor	M.Com, Ph.D	88485 31450
7	Ms Reshma MB	Assistant Professor	MBA	89215 32232

DEPARTMENT OF SCIENCE AND HUMANITIES

SL.NO.	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Mr. Sajith P	Asso. Professor & HoD	M.Sc, M.Tech	9496469890
2	Ms. Sreedevi V V	Assistant Professor	M.Sc, B.Ed	9895948107
3	Ms. Lekha V L	Assistant Professor	M.Sc, B.Ed	9495824279
4	Ms. Baby Resmi K V	Assistant Professor	M.Sc, M.Ed	9495718838
5	Ms. Lima Chandra	Assistant Professor	M.Sc, B.Ed	9446179104
6	Mr. Martin T	Assistant Professor	M.Sc, M.Phil	7994333920
7	Ms. Manju R	Assistant Professor	M.Sc, MPhil, BEd	9446391698
8	Ms. Rani B S	Assistant Professor	M.Phil, M.Sc	9447221004
9	Dr. Mary Harli Mol E	Assistant Professor	Ph.D	8148446719
10	Ms. Ragi S Robert	Assistant Professor	M.Sc, M.Phil, B.Ed	9539018715
11	Ms. Jyothy James	Assistant Professor	M.Sc, M.Ed	9645554277
12	Ms. Sowmya K P	Assistant Professor	M.A, MBA	9895619205
13	Rev. Fr. Sibin George	Assistant Professor.	M.Sc, MA	8590698167

DEPARTMENT OF PHYSICAL EDUCATION

SL.NO.	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Mr. Hiran Mohan S	Assistant Professor	M.PEd	8593963359

MASTER OF COMPUTER APPLICATIONS (INTEGRATED)

SL. NO .	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms Neethu Mohan	Assistant Professor & HoD	MTech/MCA	9446613938
2	Dr. Joseph Antony G	Professor(Adjunct)	Ph.D	9847168384
3	Mr. Vivek V V	Assistant Professor	MCA/UGC Net	7012802773
4	Ms Salini V Nair	Assistant Professor	MA(English), B.Ed	8606828832

TECHNICAL STAFF (CE)

SL. NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms. Sreeja T S	Lab Instructor	ITI	9847117404
2	Mr. Satheesh Kumar G R	Lab Instructor	ITI	8606224630
3	Ms. Lali P S	Lab Instructor	ITI	9567010241
4	Ms. Jijomon S	Lab Instructor	Diploma	9539933935

TECHNICAL STAFF (ECE)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms. Divya R S	Lab Instructor	B.Tech	8893724494
2	Mr. Vipin Antony	Lab Instructor	Diploma	9497161512
3	Ms. Noel Pereira J	Lab Instructor	B.Tech	9539202635
4	Ms. Anitha R	Lab Instructor	Diploma	9061257508
5	Mr. Tony Varghese	Lab Instructor	Diploma	9846096896

TECHNICAL STAFF (ES)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms. Sunitha Kumari	Lab Instructor	Diploma	7034242876
2	Mr. Shain Aji	Lab Instructor	Diploma	7510583151

TECHNICAL STAFF (EEE)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Mr. Amaljith A	Lab Instructor	B.Tech	9947841245
2	Mr. Sreekumaran K B	Lab Instructor	Diploma	9495272626
3	Mr. Sabu J G	Electrician	Diploma	98950 84045

TECHNICAL STAFF (AH)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Mr. Gopakumar G S	Lab Instructor	BSc, PGDCA	9400633723

TECHNICAL STAFF (CSE)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Ms. Sheeja George	Computer Operator	MCA	9446583001
2	Ms. Tessy T	Lab Instructor	MCA	9847068107
3.	Mr. Shelton Joseph	System administrator	Diploma	9048368248
4	Mr. Jery John	Lab Instructor	Diploma	9048678778
5	Mr. Barnous Samuel	Lab Instructor	Diploma	9895937623
6	Mr. Subhash Kumar P T	Lab Instructor	Diploma	7560985077
7	Mr. Sibi Babu	Lab Instructor	Diploma	9847257840

TECHNICAL STAFF (ME)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Fr. Abin Stantly	Workshop Superintendent	B.Tech	8129934954
2	Mr. D Anil Kumar	Trade Instructor	ITI	9495407601
3	Mr. Justin J S	Trade Instructor	ITI	9447444696
4	Mr. Ramachandran N	Trade Instructor	ITI	9249958503
5	Mr. Amal George	Trade Instructor	ITI	9633170278
6	Mr. Sunil Kumar N D	Trade Instructor	ITI	9446202466
7	Mr. Anil Lal J	Trade Instructor	ITI	9495407601
8	Mr. Nataraja Pillai	Trade instructor	ITI	9495746053
9	Ms. Meera Dcruz	Trade Instructor	B.Tech	9656076597

TECHNICAL STAFF (SCIENCE)

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Mr. Mickel P	Lab Assistant	ITI	7306721206
2	Ms. Mary Shimona	Lab Assistant	M.Sc.	9074450769

STUDENT COUNSELLOR

SL.NO	NAME	DESIGNATION	PHONE NUMBER
1	Ms. Jertrude Thomas	Counsellor	9446396905
2	Ms. Ancy John	Counsellor	9447612655
3	Mr. Poleson A	Counsellor	9446944666

LIBRARY STAFF

SL.NO	NAME	DESIGNATION	QUALIFICATION	PHONE NUMBER
1	Dr. Unnikrishnan Namboothiri	Chief Librarian	Ph.D	9446474729
2	Mr. D Vijayalal	Attendant	SSLC	9846122643
3	Mr Sreejith M S	Librarian Grade-IV	B.Com, MLISc	7012459032
4	Ms. Chithra Chandran	Librarian Grade-IV	B.Sc, MLISc	9496261644

OFFICE STAFF

SL.NO	NAME	DESIGNATION	PHONE NUMBER
1	Mr. Suresh Kumar M	Administrative Officer	9495408067
2	Mr. Willy Brod R	Finance Officer	9447005733
3	Mr. Rahul R S	Public Relations Officer	9495355925
4	Mr. Justin J S	Campus Nodal Officer	9447444696
5	Mr. Antony Xavier J	Campus Officer	8547368352
6	Mr. George Mathew	Store Keeper	9496545336
7	Sr. Mary Paramban	Store Assistant	9495022467
8	Rev. Sr. Thressiana	Student Affairs	9495676912
9	Ms. Margie Francis	Clerk	9947293844
10	Ms. Mary Shirley P	Clerk	9847662648
11	Ms. Limcy Alexander	Clerk(PA to Manager)	9562747090
12	Ms. Beena N S	Clerk (PA to Principal)	9745276468
13	Mr. George R Pereira	Head Clerk	9497012445
14	Ms Rani Xavier	Store Assistant	7559815188
15	Mr Siluvayyan P	Office Assistant	9539569603
16	Ms Reni George	Store Assistant	7356045808
17	Mr Ebin Lopez Francis	Clerk	9656984292
18	Ms Steffi Johnson	Clerk	9746535249
19	Ms. Princylin Tom	Clerk	8921269758
20	Ms. Sruthi Denson	Clerk	8606931839
21	Ms.Evelyn Anto Lopez	Clerk(Reception)	9074914684
	Mr. George C	Admin Attendant	9495301884

DRIVERS (COLLEGE BUSES & OFFICE CARS)

SL.NO	NAME	PHONE NUMBER
1	Mr. Antony Xavier J(Bus Coordinator)	9188942808
2	Mr. Ajesh V	9447341697
3	Mr. Liju	9037723187
4	Mr. N Harikumar	9539301369
5	Mr. Gopakumar	7034609496
6	Mr. Sucheendran B	9447496523
7	Mr Ratheeskumar N J	9447225545
8	Mr. Binoy Roy	9846621184
9	Mr. Basheer	9544610041
10	Mr. Sinu Wilson	9645113268
11	Mr. Hareendran Nair	9048918038
12	Mr Anoop	9961782902
13	Mr. GopalaKrishnan	7293822820
14	Mr. S Prasad	9645321777
15	Mr. Bala Indukumar	9645792085
16	Mr. Sajith A S	9895092747
17	Mr. Saran	9539101108
18	Mr. Vijin Thomas	9061421962
19	Mr. Jaison	7736001726
20	Mr. Santosh	9539044882
21	Mr. Makins Gomez	9745776903
22	Mr. Murugan	9846899608

HOUSE KEEPING STAFF

SL.NO	NAME	PHONE NUMBER
1	Ms. Rosy	9895431052
2	Ms. Jassantha	9544219315
3	Ms. Sunantha	8138877316
4	Ms. Mary Dorin	8078551121
5	Ms. Nirmala S	9656874608
6	Ms. Latha	8129679227

SECURITY STAFF

SL.NO	NAME	PHONE NUMBER
1	Mr Johnson	6282555300
2	Mr Jayachandran	8113902693
3	Mr. George Joseph	9562388764
4	Mr. Sebastian	8590173275

COMMITTEES AND ASSOCIATIONS

PARENT TEACHER ASSOCIATION

Parent-Teacher Association looks into all the activities of the college for the betterment of the facilities and standards. Parents are periodically informed of the academic as well as other status of their wards. As and when required they will be requested to meet the staff for personal discussion and possible improvement.

PTA Secretary: Ms. Asha Davood, Assistant Professor (CE) 97462155556

WOMEN'S WELFARE & GRIEVANCE COMMITTEE

In order to promote a healthy working environment for all our female staff, students and faculty and to work towards building a gender-sensitized environment a women cell is functioning in the institute.

Convener: Ms.Sreedevi V V, Assistant Professor(Mathematics) 9895948107

ANTIRAGGING CELL

Anti-ragging Cell is in operation under the overall charge of the principal. Students are advised to bring cases of ragging (either on the college campus or at the hostel) to the notice of the principal/ members of the anti-ragging committee/teachers/hostel wardens. The offenders shall be liable for punishment with imprisonment and fine. Offenders may be expelled from the institution.

Convener: Mr, Arun J (Asso. Professor ME) 6282727692

KTU CELL

In order to look after all KTU related issues of students a cell is functioning in the college in Room No.105 of Sacred Heart Block.

Convener:Dr. Sheeja Augustine Professor (CSE) Mob:9446614773

KTU EXAMINATION CELL

Examination Cell conducts all university examinations in the college.

Convener: Mr. Kannan K, Assistant Professor (ME) 9495636362

STUDENT WELFARE COMMITTEE

Student Welfare Committee of Marian Engineering College was constituted in Oct 2018 for the general and specific well-being of students. Student Welfare Committee endeavors to help a student's educational process to advance their academic as well as personal abilities. The committee works for the overall welfare of the student in terms of student development which consists of student development program, student publication, counselling of the students, co curricular activities and many more. The committee conducts various activities to enhance the skill set of students like Talk shows, workshops, Debate and Quiz competition, Photography and Painting exhibits.

Convener: Ms. Sowmaya K P. Asst. Professor (Science & Humanities) 9074571765

CAREER GUIDANCE AND PLACEMENT UNIT (CGPU)

The Career Guidance and Placement Unit functioning in the College take care of the On-Campus placement activities. CGPU brings students and Industrial community together in an effort to create Industry-Institution Interaction.

CGPU organizes on campus and off campus recruitments and pre-placement training programmes in Aptitude test, Group Discussions, Interviews and presentation skills. Mock interviews and GDs are conducted on a regular basis so as to equip final and pre-final students to face the challenges of the recruitment scenario.

Objectives

- To place students of our college in reputed companies in India and abroad
- To give proper career guidance and help students for achieving clear career goals
- To give information and assistance regarding higher studies in India and abroad

Staff in Charge : Ms Rojitha Abdulla, Asst.Professor, (CSE) 9995100989

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE (IEDC)

Marian Engineering College always focuses its activities to solve unemployment problem that exist in the society. We identify all possible ways by which our students can achieve a successful career. Even though a good number of students are recruited by companies through campus recruitment, we also help to mould themselves as job providers, not as job seekers. Students are encouraged to think out of the syllabus to identify problems, which can't be solved, and to develop a product as outcome of solution. They are given end to end support through which they can file a patent and market the product. Five Startup companies are functioning in the campus which is incubated in the Marian Technology Incubation Centre. Students attend lot of technology seminars and hands on trainings, through which they can improve their technical skill and sharpen their thought process. The IEDC is affiliated to Kerala Startup Mission at Technopark, Thiruvananthapuram.

Marian IEDC is selected as one among the top ten IEDC's in the state. Marian IEDC Nodal Officer, is selected as Mentor for ATAL THINKERING LAB by MHRD, Govt. of India to establish innovation culture through school level activities.

Convener: **Dr. M. Manoj, Associate Professor (ECE) 9847321011**

CO-CURRICULAR/EXTRA CURRICULAR ACTIVITIES

STUDENT SENATE

The student senate consists of Two class representatives from each class. It acts as an interface between the students and the management. It provides opportunities for the students to develop their social and cultural life, and focuses on the overall development of the individual. The student senate also undertakes the responsibility of bringing out the annual college magazine. Chairman, Chair person, General Secretary, Arts Secretary and Sports Secretary and Magazine editor are selected by the senate every year.

Convener: **Dr. Amjith L R, Assistant Professor (ME) 9946289978**

RESEARCH & DEVELOPMENT CENTRE

Marian Engineering College has given emphasis to encourage engineering innovations through research and development. All research activities need a platform to showcase the observations and findings in an ever utilizable manner. The first issue of Marian Journal of Engineering Research was released in 2013 by Padmashri M. Chandraduthan, Former Director, Liquid Propulsion Systems Centre, ISRO. The Marian Research and Development Centre takes initiatives in publishing the research work by both faculty and students through the Marian Journal.

Convener: **Dr. Narayanan S, Professor (CE) 9961140744**

BHOO MITHRA SENA CLUB

BhooMithra Sena club (BMC) is an initiative taken by Govt. of Kerala through Department of Environmental and climate change to strengthen the commitment of students at the college level towards environmental issues. The main objective is to appreciate environment and identify environmental issues of the locality and to involve them in addressing environmental issues of the locality. The club consists of 82 student members who are

enthusiastic in environmental related issues and are ready to spend time for the club activities.

Conveners:

1) Ms. Deepthi Dennison, Assistant Professor (CE) 8281070205

2) Mr. Pramod Raj T P, Assistant Professor (ME) 9495344863

NATIONAL SERVICE SCHEME

NSS unit of MEC is very active and consists of 50 students from second year. NSS unit has actively undertaken social and humanitarian projects. The unit helps people in the wards, near the college by sponsoring educational needs of their children. They undertake various programmes like blood donation, stem cell collection, campus cleaning etc. Every year the cell conducts NSS Camp of two weeks.

Conveners:

1) Mr. Deepak Peter, Assistant Professor (ME) 999209389

2) Ms. Minnu Jayan C, Assistant Professor (ECE) 8590877410

STUDENT GRIEVANCE REDRESSAL AND APPEAL COMMITTEE

As per the ordinance from Kerala Technological University (KTU), a Student Grievance Re-dressal Cell has been constituted in this institution. Students can approach this cell to express his / her grievance. The cell considers the request and addresses genuine complaints from students. Online facility is available for submitting complaints.

Convener: Prof. R Harikumar (HoD/EEE)

INTERNAL COMPLAINTS COMMITTEE

A committee has been constituted for the effective enforcement of the basic human right of gender equality and as guarantee against sexual harassment and abuse to woman. Its aim is to deal with cases of sexual harassment against women in a time bound manner to ensure support services to the victimized and to terminate the harassment.

Presiding Officer: Dr. Sheeja Augustin, Professor (CSE), 9446614773

ANTI NARCOTIC CELL

The Anti Narcotic Cell aims at working against the use of alcohol, tobacco and drugs. Conducting seminars in the college, arranging poster campaigns, conducting video competitions on abuse of drugs are the activities carried out to give awareness to students.

Convener: Mr. Rajaneesh R Chandran. Assistant Professor (ME) 7012144632

INDUSTRY INSTITUTE INTERACTION CELL

To optimize the deployment of physical and human resources of Institutions and Industries in the pursuit of development of technical manpower & to enlist participation of industry in technical education programmes, with a view to have better interaction between Industries and Institute, Marian Engineering College has started Industry Institute Interaction Cell (IIIC).

Convener: Dr. Narayanan S, Professor (CE) 9961140744

PROFESSIONAL BODIES

The following student chapters of professional bodies are functioning in the campus.

Sl. No.	Professional Body	Faculty in Charge
1.	IEEE (Institute of Electrical and Electronics Engineers)	Dr. Sheeja Agustin (CSE)
2.	ISTE (Indian Society for Technical Education) Institution Faculty Chapter	Dr. Rani V.(CE)
3.	ISTE (Institution Students Chapter)	Ms. Vinitha B Elza
4.	IETE(The Institution of Electronics and Telecommunication Engineers)	Mr. Glastin Y V
5.	IEEE EMBS	Dr. Shanthi K J
6.	CSI (Computer Society of India)	Ms. Nitha L Rozario (CSE)
7.	IEI (The Institution of Engineers)	Dr.Manu Mohan (ME)
8.	IGS(The Indian Geotechnical Society)	Dr. Rani V. (CE)
9	IEEE PES (IEEE Power and Energy Society)	Dr. Vijayalekshmy S. (EEE)
10	ISHRAE (Indian Society of Heating Refrigeration and Air-conditioning Engineers)	Mr. Pramod Raj P (ME)
11	ASCE (American Society For Civil Engineers)	Ms.Renju C.M

DEPARTMENT ASSOCIATIONS

Sl. No.	Name	Faculty in charge
1	Civil Engineering Association	Ms.Asha Davood
2	Computer Science & Engineering Association	Ms.Mercilin Francis
3	Electrical and Electronics Engineering Association	Ms.Thangathamarai NGS
4	Electronics and Communication Engineering Association	Ms Minnu Jayan C
5	Mechanical Engineering Association	Mr.Amjith L.R.
6	Artificial Intelligence & Machine Learning Association	Ms Aswathy A L

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B. Tech Curriculum-2026 Semester I to VIII

Artificial Intelligence and Machine Learning (Group A) Branch Code: AH

SEMESTER 1

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0111	GC	Mathematics for Information Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Information Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211	GC	Chemistry for Information Science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical & Electronics Engineering (Part 1: Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part 2: Electronics Engineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50*	1	2
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221	IC	Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30			20	25/26

10 Days Compulsory Induction Program and UHV | Bridge Course (Mathematics or Introduction to Computer Science) : 15 Hrs.

L-T-P-R: Lecture-Tutorial-Practical-Project | SS (Self Study) Hours=1.5L+0.5T+0.5P+R

CIA: Continuous Internal Assessment | ESE: End Semester Examination

****No Grade Points will be awarded for the I slot course**

SEMESTER 2

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0211	GC	Mathematics for Information Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Information Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information Science and Electrical Science									
3	C	UBET26CS0211	GC	Foundations of Computing: From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBST26CS0201	PC	Discrete Mathematics	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50	1	2
Total									33			23	27/28

****No Grade Points will be awarded for the I slot course.**

SEMESTER 3

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0311	GC	Mathematics for Information Science-3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26AH0301	PC	Machine Learning -1	3	1	0	0	5	40	60	4	4
3	C	UBET26CS0302	PC	Data Structures and Algorithms	3	1	0	0	5	40	60	4	4
4	D	UBET26CS0331	PC-PBL	Object Oriented Programming	3	0	0	1	5.5	60	40	4	4
5	E	UBET26EC0311	GC	Digital Electronics & Logic Design	3	1	0		5	40	60	4	4
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26CS0303	PC	Data Structures Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CS0304	PC	Digital Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*
Total									31/36			25/29*	27/31*

SEMESTER 4

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0411	GC	Graph Theory	3	0	0	0	4.5	40	60	3	3
2	B	UBET26AH0401	PC	Fundamentals of Artificial Intelligence	3	1	0	0	5	40	60	4	4
3	C	UBET26AH0402	PC	Machine Learning -II	3	1	0	0	5	40	60	4	4
4	D	UBET26AH0431	PC-PBL	Database System	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 1	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26AH0403	PC	Machine Learning Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26AH0404	PC	Artificial Intelligence Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28*	26/30*

ROGRAM ELECTIVE 1

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26CS0451	Software Engineering	3-0-0-0	3	3
	UBET26CS0452	Pattern Recognition	3-0-0-0		3
	UBET26CS0453	Functional Programming	3-0-0-0		3
	UBET26CS0454	Coding Theory	3-0-0-0		3
	UBET26AH0451	Signals and Systems	3-0-0-0		3
	UBET26CS0455	Soft Computing	3-0-0-0		3
	UBCT26AH0452	Introduction to Theory of Computation	3-0-0-0		3
	UBCT26AH0453	Cyber Ethics, Privacy and Legal Issues	3-0-0-0		3
	UBET26AH0454	Computer Organization	3-0-0-0		5/3
	UBET26CS0458	Advanced Data Structures	3-0-0-0		5/3

Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2026 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

SEMESTER 5

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26AH0501	PC	Introduction to IoT	3	1	0	0	5	40	60	4	4
2	B	UBET26CS0502	PC	Design and Analysis of Algorithms	3	1	0	0	5	40	60	4	4
3	C	UBET26AH0502	PC	Deep Learning Concepts	3	0	0	0	4.5	40	60	3	3
4	D	UBET26AH0531	PC-PBL	Introduction to Computer Vision	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 2	PE	Program Elective 2(List as follows)	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution Of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26AH0503	PC	IoT Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26AH0504	PC	Deep Learning Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									30/35			23/27	24/28

No Grade Points will be awarded for the MOOC course and I slot course.

Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26CS0551	Software Project Management	3-0-0-0	3	3
	UBET26AH0551	Expert Systems	3-0-0-0		3
	UBET26AH0552	Fuzzy Systems	3-0-0-0		3
	UBET26CS0554	Data Compression	3-0-0-0		3
	UBET26CS0555	Digital Signal Processing	3-0-0-0		3
	UBET26AH0553	Introduction to Compiler Design	3-0-0-0		3
	UBET26AH0554	Concepts in Social Network Analysis	3-0-0-0		3
	UBET26CS0558	Data Mining	3-0-0-0		5/3
	UBET26AH0555	Operating System Concepts	3-0-0-0		5/3

SEMESTER 6

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26AH0601	PC	Introduction to Natural Language Processing	3	1	0	0	5	40	60	4	4
2	B	UBET26AH0602	PC	Generative AI	3	0	0	0	4.5	40	60	3	3
3	C	Programme Elective 3	PE	Program Elective 3(List follows)	3	0	0	0	4.5	40	60	3	3
4	D	UBET26AH0631	PC-PBL	Concepts in Data Analytics	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0611	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	Open Elective 1	OE	Open Elective 1(List follows)	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26AH0603	PC	Natural Language Processing Lab	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26AH0604	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
Total									32/36			23/26*	25/28*

Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26CS0651	Software Testing	3-0-0-0	3	3
	UBET26AH0651	Basics of Computer Networks	3-0-0-0		3
	UBET26CS0653	Wireless & Mobile Computing	3-0-0-0		3
	UBET26CS0654	Advanced Database Systems	3-0-0-0		3
	UBET26CS0655	Digital Image Processing	3-0-0-0		3
	UBET26CS0656	Fundamentals of Cryptography	3-0-0-0		3
	UBET26AH0652	Quantum Computing	3-0-0-0		3
	UBET26CS0657	Cloud Computing	3-0-0-0		5/3
	UBET26AH0653	Data Handling and Visualization			5/3
OPEN ELECTIVE 1					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26CS0681	Data Structures	3-0-0-0	3	3
	UBET26CS0682	Data Communication	3-0-0-0		3
	UBET26CS0683	Foundations of Cryptography	3-0-0-0		3
	UBET26CS0684	Machine Learning for Engineers	3-0-0-0		3
	UBET26AH0681	Artificial Intelligence	3-0-0-0		3

SEMESTER 7

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Cred its	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-4	PE	Programme Elective 4(List follows)	3	0	0	0	4.5	40	60	3	3
2	B	PE-5	PE	Programme Elective 5(List follows)	3	0	0	0	4.5	40	60	3	3
3	O	OE-2	OE	Open Elective 2(List follows)	3	0	0	0	4.5	40	60	3	3
4	I*	HUM	IE	Humanities Elective(List follows)	2	0	0	0	3	50	50	2	2
5	S	UBES26AH0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	UBEP26AH0701/ UBEP26AH7801/ UBKN26XT7891	PC	Major Project Phase-1/ Major Project/ Internship (4-6 Months)¥	0	0	0	8	8	50/100 /50	0	4	8
7	R/H			Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total									26/ 31			17/ 20*	22/ 25*

¥ (Internship Students: Self Study/MOOC Approved by the Institute/Online Classes)

*No Grade Points will be awarded for the I slot courses.

**Students can opt for the internship either in the 7th or 8th semester.

Option 1: Work on the major Project in the institute/department under the mentorship of faculty members(can do internship in S8) Option 2: Work on the first phase of a major project in the institute or department under the mentorship of s faculty members(Student has to complete the second phase of the major project in S8;No internship in S8).Option 3:Full semester Internship in an Industry/organization in S7 (student has to undertake the Main project in S8)

PROGRAM ELECTIVE 4					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26CS0751	Web Programming	3-0-0-0	3	3
	UBET26CS0752	Bioinformatics	3-0-0-0		3
	UBET26CS0753	Information Security	3-0-0-0		3
	UBET26CS0754	Embedded Systems	3-0-0-0		3
	UBET26CS0755	Blockchain and Cryptocurrencies	3-0-0-0		3
	UBET26CS0756	Realtime Systems	3-0-0-0		3
	UBET26CS0757	Approximation Algorithms	3-0-0-0		3
	UBET26AH0751	Formal Methods in Software Engineering	3-0-0-0		3
	UBET26AH0752	Reinforcement Learning	3-0-0-0		5/3

PROGRAM ELECTIVE 5					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26CS0761	Advanced Computer Networks	3-0-0-0	3	3
	UBET26AH0761	Computational Linguistics	3-0-0-0		3
	UBET26CS0762	Responsible Artificial Intelligence	3-0-0-0		3
	UBET26AH0762	Game Theory and Mechanism Design	3-0-0-0		3
	UBET26CS0764	Digital Forensics	3-0-0-0		3
	UBET26CS0765	High Performance Computing	3-0-0-0		3
	UBET26CS0766	Programming Languages	3-0-0-0		3
	UBET26CS0767	Parallel Algorithms	3-0-0-0		3
	UBET26AH0763	Time Series Modeling	3-0-0-0		5/3
	UBET26CS0769	Algorithms For Data Science	3-0-0-0		5/3

OPEN ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26CS0781	Cyber Security	3-0-0-0	3	3
	UBET26CS0782	Cloud Computing	3-0-0-0		3
	UBET26CS0783	Software Engineering	3-0-0-0		3
	UBET26CS0784	Computer Networks	3-0-0-0		3
	UBET26CS0785	Mobile Application Development	3-0-0-0		3

HUMANITIES ELECTIVE					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
I	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control	2-0-0-0	2	2
	UBLT26XT0771	Proficiency course in French (MOOC)(B1 level)	2-0-0-0		2
	UBLT26XT0772	Proficiency Course in German (B1 Level) (MOOC)	2-0-0-0		2
	UBLT26XT0773	Proficiency Course in Spanish (B1 Level) (MOOC)	2-0-0-0		2
	UBLT26XT0774	Introduction to Japanese Language and Culture (N5 level) (MOOC)	2-0-0-0		2

SEMESTER 8

SEMESTER 8

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	Programme Elective 6 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
2	O	OE-3	OE	Open Elective 3	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P**	UBEP26AH0801/ UBEP26AH7801/ UBKN26XT7891	PC	Major Project Phase 2/ Major Project/ Internship (4-6) months	0	0	0	8	8	50/ 100/ 50	0	4	8
Total									20			11	16

¥ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Major Project in the institute/department under the mentorship of faculty members (can do internship in S7). Option 2: Work on the second phase of the Major Project in the institute/department under the mentorship of faculty members (student has to complete the first phase of the Major project in S7; No internship in S7). Option 3: Full semester Internship in an Industry/organization in S8 (Student has to undertake the Major Project in S7).

PROGRAM ELECTIVE 6					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26CS0851	Software Architectures	3-0-0-0	3	3
	UBET26AH0851	Large Language Models	3-0-0-0		3
	UBET26CS0853	Topics in Security	3-0-0-0		3
	UBET26CS0854	Computational Complexity	3-0-0-0		3
	UBET26CS0855	Speech and Audio Processing	3-0-0-0		3
	UBET26CS0856	Storage Systems	3-0-0-0		3

	UBET26CS0857	Prompt Engineering	3-0-0-0	3
	UBST26CS0858	Computational Number Theory	3-0-0-0	3
	UBET26CS0859	Next Generation Interaction Design	3-0-0-0	5/3

OPEN ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDI T
O	UBET26CS0881	Introduction to Algorithms	3-0-0-0	3	3
	UBET26CS0882	Web Programming	3-0-0-0		3
	UBET26CS0883	Software Testing	3-0-0-0		3
	UBET26CS0884	Internet of Things	3-0-0-0		3
	UBET26CS0885	Computer Graphics	3-0-0-0		3

COURSE TYPE SUMMARY

HMC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India. (MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9
BSC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1	Mathematics for Information Science-1	3
2	S1/S2	Physics for Information Science	4
3		Chemistry for Information Science	4
4	S2	Mathematics for Information Science-2	3
5	S3	Mathematics for Information Science-3	3
6	S4	Mathematics for Information Science-4	3
Total Credits			20
ESC Courses (Group A)			
Sl. No:	Semester	Course Area	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	S2	Foundations of Computing: From Hardware Essentials to Web Design/ Engineering Mechanics (EEE, CP, RA and RU)	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
Total Credits			29
Programme Core Courses (PC)			
Sl. No:	Semester	Course Area	Credits

1	S3	Machine Learning-1	4
3		Data Structures and Algorithms	4
4		Data Structures Lab	2
5		Digital Lab	2
6	S4	Foundations of Artificial Intelligence	4
7		Machine Learning-2	4
8		Machine Learning Lab	2
9		Artificial Intelligence Lab	2
10	S5	Introduction to IoT	4
11		Design and Analysis of Algorithms	4
12		Deep Learning Concepts	3
13	S6	IoT Lab	2
14		Deep Learning Lab	2
15		Introduction to Natural Language Processing	4
16		Generative AI	3
17		Natural Language Processing Lab	2
Total Credits (Theory-9, Lab-7)			48
Programme Core-Project Based Learning (PC-PBL)			
Sl. No:	Semester	Course Area	Credits
1	S3	Object Oriented Programming	4
2	S4	Database Systems	4
3	S5	Introduction to Computer vision	4
4	S6	Concepts in Data Analytics	4
Total Credits			16
Programme Elective Courses (PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18
Open Elective Courses/Industry Linked Elective Courses			
Sl. No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
Total Credits			9
Project/Internship and Seminar			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini Project	2
2	S7	Seminar	2
3		Major Project/Internship	4
4	S8	Major Project/Internship/Research Project	4
Total Credits			12

Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS, NCC, NSO (National Sports Organization)	1 (40 Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.) / Valid GATE Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/Workshop Activities/Professional Body Activities, Participation in University level/State Level/National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/International Level Hackathons	1 (40 Points)	
8		Skilling Certificates (Approved by the University)		

- *Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.*
- *For B. Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.*

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B. Tech Curriculum-2026 Semester I to VIII

Programme:
Civil Engineering (Group C)
Branch Code: CE

SEMESTER 1													
Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and PhysicalScience-1	3	0	0	0	4.5	40	60	3	3
2	B S1/S2	UBST26PH1213	GC	Physics for PhysicalScience	3	0	2	0	5.5	40	60	4	5
		UBST26CY1212		Chemistry for PhysicalScience									
3	C	UBET26C0111	GC	Engineering Mechanics	3	0	0	0	4.5	40	60	3	3
4	D	UBET26JD0112	GC	Introduction to Mechanical Engineering & Civil Engineering (Part1:Mechanical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part2:Civil Engineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	UC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0112	GC	Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I* S1/S2	UBYT26PE1221	UC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3	100	0		
Total									30/32			20	24/ 25
10 Days Compulsory Induction Program and UHV Bridge Course (Mathematics or Introduction to Computer Science) : 15 Hrs.													
L-T-P-R: Lecture-Tutorial-Practical-Project SS (Self Study) Hours=1.5L+0.5T+0.5P+R													
CIA: Continuous Internal Assessment ESE: End Semester Examination													
**No Grade Points will be awarded for the I slot course													

SEMESTER 2													
Sl. No	Slot	Course Code	Course Category	Course Name	Credit Structure				S S	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/S2	UBST26PH1213	GC	Physics for Physical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1212		Chemistry for Physical Science									
3	C	UBET26ME0211	GC	Engineering Graphics and Computer Aided Drawing	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0211		Basic Electrical & Electronics Engineering (Part1 :Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
			GC	(Part 2: Electronics Engineering)									
5	E	UBET26CE0201	PC	Mechanics of Solids	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	UC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I* S1/S2	UBYT26PE1221	UC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3	100	0		
8	L	UBEL26CE0211	GC	Civil Engineering Drafting lab	0	0	2	0	1	50	50	1	2
Total									34			24	27/28
**No Grade Points will be awarded for the I slot course.													

SEMESTER 3

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical Science - 3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26CE0301	PC	Fluid mechanics	3	1	0	0	5	40	60	4	4
3	C	UBET26CE0302	PC	Structural Analysis-I	3	1	0	0	5	40	60	4	4
4	D	UBET26CE0331	PB	Surveying & Geomatics	3	0	0	1	5.5	60	40	4	4
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0	0	5	40	60	4	4
6	G S3/S4	UBHT26HU3421	UC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26CE0303	PC	Survey Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CE0304	PC	Fluid mechanics Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/ minor/ course	3	1	0	0	5			4*	4*
Total									31/36			25/29*	27/31*

Bridge Course for Lateral Entry Students: 15 Hrs.

SEMESTER 4

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0413	GC	Probability Statistics and Numerical Methods	3	0	0	0	4.5	40	60	3	3
2	B	UBET26CE0401	PC	Soil mechanics	3	1	0	0	5	40	60	4	4
3	C	UBET26CE0402	PC	Structural analysis-II	3	1	0	0	5	40	60	4	4
4	D	UBET26CE0431	PB	Design of concrete structures	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 1	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UBHT26HU3421	UC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26CE0403	PC	Materials testing lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CE0404	PC	Civil engineering modeling Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28*	26/30*

ROGRAM ELECTIVE I

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	UBET26CE0451	Advanced Solid Mechanics	3-0-0-0		3
	UBET26CE0452	Concrete Technology	3-0-0-0		3
	UBET26CE0453	Mechanics of Fluid Flow	3-0-0-0		3
	UBET26CE0454	Cartography and GIS	3-0-0-0		3

E	UBET26CE0455	Engineering Geology	3-0-0-0	3	3
	UBET26CE0456	Numerical methods for Engineers	3-0-0-0		3
	UBET26CE0457	Environmental law and Policy	3-0-0-0		3
	UBET26CE0458	Architectural Engineering	3-0-0-0		5/3

Note : Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. -2024 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

SEMESTER 5													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26CE0501	PC	Hydrology & water resources engineering	3	1	0	0	5	40	60	4	4
2	B	UBET26CE0502	PC	Transportation engineering	3	1	0	0	5	40	60	4	4
3	C	UBET26CE0503	PC	Environmental engineering	3	0	0	0	4.5	40	60	3	3
4	D	UBET26CE0531	PB	Foundation engineering	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 2	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	UC	Constitution of India(MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26CE0504	PC	Geotechnical engineering lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CE0505	PC	Concrete lab (MT-2)	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/ Minor/ Honours Course	3	1	0	0	5			4*	4*
	S5/S6	Industrial Visit (Maximum 12 Days are permitted, Not Exceeding more than 6 Working Days) / Industrial Training											
Total									30/35			23/27*	24/ 28*
<i>*No Grade Points will be awarded for the MOOC course and I slot course</i> <i>Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working Days</i> <i>Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period</i>													

PROGRAM ELECTIVE 2					
SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26CE0551	Advanced Structural Analysis	3-0-0-0	3	3
	UBET26CE0552	Modern Construction Technology	3-0-0-0		3
	UBET26CE0553	Open Channel Hydraulics	3-0-0-0		3
	UBET26CE0554	Disaster management	3-0-0-0		3
	UBET26CE0555	Applied hydrology and climatology	3-0-0-0		3
	UBET26CE0556	Town Planning	3-0-0-0		3
	UBET26CE0557	Optimization techniques and operations Research for Civil Engineers	3-0-0-0		3
	UBET26CE0558	Design of prestressed concrete	3-0-0-0		5/3

SEMESTER 6													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/Week
					L	T	P	R		CI A	ES E		
1	A	UBET26CE0601	PC	Quantity surveying & valuation	3	0	0	0	4.5	40	60	3	3
2	B	UBET26CE0602	PC	Design of steel structures	3	0	0	0	4.5	40	60	3	3
3	C	Programme Elective 3	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	UBET26CE0631	PB	Construction project management	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0613	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	Open Elective I	OE	OE/	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26CE0603	PC	Transportation engineering lab	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26CE0605	PC	Mini Project : Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	Q	UBEL26CE0604	PC	Environmental engineering lab	0	0	2	0	1	50	50	1	2
10	R/M/H			Remedial/Minor/Honours Course	3	0	0	0	5			3*	3*
	S5/S6	Industrial Visit (Maximum 12 Days are permitted, Not Exceeding more than 6 Working Days) / Industrial Training											
Total									32/37			23/26*	26/29*
<i>Industrial Visit: In S5 or S6.12 days are permitted including a maximum of 6 working Days</i> <i>Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period</i>													

PROGRAM ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26CE0651	Advanced Design of Concrete Structures	3-0-0-0	3	3
	UBET26CE0652	Irrigation and Drainage Engineering	3-0-0-0		3
	UBET26CE0653	Ground Improvement Techniques	3-0-0-0		3
	UBET26CE0654	Repair and rehabilitation of structures	3-0-0-0		3
	UBET26CE0655	Solid and Hazardous Waste Management	3-0-0-0		3
	UBET26CE0656	Traffic Engineering and Management	3-0-0-0		3
	UBET26CE0657	Advanced foundation Engineering	3-0-0-0		5/3

OPEN ELECTIVE1					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26CE0681	Introduction to Construction Engineering	3-0-0-0	3	3
	UBET26CE0682	Environmental Laws and Policy	3-0-0-0		3
	UBET26CE0683	Disaster management	3-0-0-0		3
	UBET26CE0684	Environmental Impact Assessment	3-0-0-0		3
	UBET26CE0685	Structural Geology	3-0-0-0		3
	UBET26CE0686	Applied Earth Systems	3-0-0-0		3

SEMESTER 7													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	Programme Elective 4	PE	PE-4	3	0	0	0	4.5	40	60	3	3
2	B	Programme Elective 5	PE	PE-4									
3	O	Open Elective 2	PE	PE-5	3	0	0	0	4.5	40	60	3	3
			OE	OE									
4	I*	UBHT26XT0791	UE	Institute Elective	3	0	0	0	4.5	40	60	3	3
5	S	UBES26CE0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	UBEP26CE7801/ UBEP26CE0701/ UBKN26XT7891	PC	Major Project/	0	0	0	12	12	100/ 50/50	0	4	8
				Major Project Phase - I									
				Internship (4-6Months)									
7	R/H			Remedial/ Honours Course	3	0	0	0	4.5			3*	3*
Total									26/31			17/20*	22/25*
<i>‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes</i> <i>*No Grade Points will be awarded for the I slot courses</i> <i>** Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the major Project in the institute/department under the mentorship of faculty members (can do internship in S8). Option 2: Work on the first phase of a Major Project in the institute/department under the mentorship of faculty members (student has to complete the second phase of the Major Project in S8; no internship in S8). Option 3: Full semester Internship in an Industry/organization in S7 (Student has to undertake the Main Project in S8).</i>													

PROGRAM ELECTIVE 4					
SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26CE0751	Structural Dynamics	3-0-0-0	3	3
	UBET26CE0752	Formwork Engineering	3-0-0-0		3
	UBET26CE0753	Environmental Geotechnology	3-0-0-0		3
	UBET26CE0754	Airport Planning and Design	3-0-0-0		3
	UBET26CE0755	Highway Material & Design	3-0-0-0		3
	UBET26CE0756	River Engineering	3-0-0-0		3
	UBET26CE0757	Pavement Design and Construction	3-0-0-0		5/3

PROGRAM ELECTIVE 5					
SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26CE0761	Ground water Engineering	3-0-0-0	3	3
	UBET26CE0762	Sustainable Construction Practices	3-0-0-0		3
	UBET26CE0763	Advanced Geotechnical Investigation	3-0-0-0		3
	UBET26CE0764	Railway, Port and Harbor Engineering	3-0-0-0		3
	UBET26CE0765	Air and Noise Pollution Control Engineering	3-0-0-0		3
	UBET26CE0766	Finite element method	3-0-0-0		3
	UBET26CE0767	Design of hydraulic structures	3-0-0-0		5/3

OPEN ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	UBET26CE0781	Intelligent Transportation Systems	3-0-0-0		3
	UBET26CE0782	Environment Health and Safety	3-0-0-0		3

O	UBET26CE0783	Watershed Conservation and Management	3-0-0-0	3	3
	UBET26CE0784	Forensic Engineering	3-0-0-0		3
	UBET26CE0785	Finance for Engineers	3-0-0-0		3

SL. No	Course Code	Slot I: HMC Elective
1	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control
2	UBLT26XT0771	Proficiency course in French. (MOOC) (B1level)
3	UBLT26XT0772	Proficiency Course in German (B1Level) .(MOOC)
4	UBLT26XT0773	Proficiency Course in Spanish (B1Level) (MOOC)
5	UBLT26XT0774	Introduction to Japanese Language and Culture (N5level). (MOOC)

SEMESTER 8

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	Programme Elective 6	PE	PE-6	3	0	0	0	4.5	40	60	3	3
2	O	Open Elective 3	OE/IE	OE	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	UC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P**	UBEP26CE7801/ UBEP26CE0801/ UBKN26XT7891/	PC	Major Project,	0	0	0	8	12	100/ 50/ 50	0	4	8
				Major Project Phase - II									
				Internship (4-6Months)									
Total									20			11	16

‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Major Project in the institute/department under the mentorship of faculty members (can do internship in S7). Option 2: Work on the second phase of Major Project in the institute/department under the mentorship of faculty members (student has to complete the first phase of the Major Project in S7; no internship in S7). Option 3: Full semester Internship in an Industry/organization in S8 (Student has to undertake the Major Project in S7).

PROGRAM ELECTIVE 6

SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26CE0851	Water and Air Quality Management	3-0-0-0	3	3
	UBET26CE0852	Valuation of Real Properties	3-0-0-0		3
	UBET26CE0853	Contracts Management	3-0-0-0		3
	UBET26CE0854	Advanced Design of Steel Structures	3-0-0-0		3
	UBET26CE0855	Urban Transportation Planning	3-0-0-0		3
	UBET26CE0856	Rural Water Supply and Onsite Sanitation Systems	3-0-0-0		3
	UBET26CE0857	Design of Earthquake Resistant Structures	3-0-0-0		5/3

OPENELECTIVE3

SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26CE0881	Waste Management	3-0-0-0	3	3
	UBET26CE0882	Rainwater Harvesting	3-0-0-0		3
	UBET26CE0883	Public Transportation Systems	3-0-0-0		3
	UBET26CE0884	Fundamentals of Building Planning	3-0-0-0		3
	UBET26CE0885	Hydrogeology	3-0-0-0		3

HMC Courses			
Sl. No.	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3	Economics for Engineers	2
3	/S4	Engineering Ethics and Sustainable Development	2
4	S5	Constitution of India (MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
TotalCredits			9

BSC Courses			
Sl.No:	Semester	Course Area	Credits
1	S1	Mathematics for PhysicalScience-1	3
2	S1/S2	Physics for Physical Science	4
3		Chemistry for Physical Science	4
4	S2	Mathematics for PhysicalScience-2	3
5	S3	Mathematics for PhysicalScience-3	3
6	S4	Mathematics for PhysicalScience-4	3
Total Credits			20

ESC Courses (GroupC)			
Sl.No:	Semester	CourseArea	Credits
1	S1	Engineering Mechanics	3
2		Introduction to Mechanical Engineering / Civil Engineering	4
3		Algorithmic Thinking with Python	4
4		Engineering Workshop	1
5	S2	Engineering Graphics and Computer Aided Drawing	3
6		Basic Electrical and Electronics Engineering	4
7		Engineering Entrepreneurship and IPR	3
8		Civil Engineering Drafting Lab	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Product Development (Group Specific Syllabus)	2
TotalCredits			29

ProgrammeCoreCourses(PC)(CE)			
Sl.No:	Semester	CourseArea	Credits
1	S2	Mechanics of solids	4
2	S3	Fluid mechanics	4
3		Structural analysis-I	4
4		Survey lab	2
5		Fluid mechanics lab	2
6	S4	Soil mechanics	4
7		Structural analysis-II	4
8		Materials testing lab	2
9		Civil engineering modeling Lab	2
10		Hydrology & water resources engineering	4
11		Transportation engineering	4

12	S5	Environmental engineering	3
13		Geotechnical engineering lab	2
14		Concrete lab(MTL-2)	2
15	S6	Quantity surveying & valuation	3
16		Design of steel structures	3
17		Transportation engineering lab	2
19		Environmental engineering lab	1
TotalCredits(Theory-10,Lab-8)			52
Programme Core – Project Based Learning (PBL)			
Sl.No:	Semester	CourseArea	Credits
1	S3	Surveying & geomatics	4
2	S4	Design of concrete structures	4
3	S5	Foundation engineering	4
4	S6	Construction project management	4
Total Credits			16
Programme Elective Courses (PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
TotalCredits			18
Open Elective Courses / Industry Elective (OE / IEL)			
Sl. No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
Total Credits			9
Project / Internship and Seminar			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini Project	2
2	S7	Seminar	2
3		Major Project / Internship	4
4	S8	Major Project / Internship / Research Project	4
Total Credits			12

Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS, NCC, NSO (National Sports Organization)	(40Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union / Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	(40 Points)	
5		Aptitude Proficiency Certification (GRE,CAT,GMATetc.)/ Valid Gate Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/ Workshop Activities/ Professional Body Activities, Participation in University level/State Level/ National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/ International Level Hackathons	1	
8		Skilling Certificates (Approved by the University)	(40 Points)	

- *Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.*
- *For B.Tech Lateral Entry students,30 points per group are required . A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.*

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B. Tech Curriculum-2026 Semester I to VIII

Programme:
Computer Science and Engineering (Group A)
Branch Code: CS

SEMESTER 1													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0111	GC	Mathematics for Information Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Information Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211	GC	Chemistry for Information Science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical and Electronics Engineering (Part 1: Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part 2: Electronics Engineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30			20	25/26
10 Days Compulsory Induction Program and UHV Bridge Course (Mathematics or Introduction to Computer Science) : 15 Hrs. L-T-P-R: Lecture-Tutorial-Practical-Project SS (Self Study) Hours=1.5L+0.5T+0.5P+R CIA: Continuous Internal Assessment ESE: End Semester Examination **No Grade Points will be awarded for the I slot course													
SEMESTER 2													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0211	GC	Mathematics for Information Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Information Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information Science and Electrical Science									
3	C	UBET26CS0211	GC	Foundations of Computing: From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBST26CS0201	PC	Discrete Mathematics	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship and IPR	3	0	0	0	4.5	60	40	3	3
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50	1	2
Total									34			23	27/28
**No Grade Points will be awarded for the I slot course.													

SEMESTER 3													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0311	GC	Mathematics for Information Science-3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26CS0301	PC	Theory of Computation	3	1	0	0	5	40	60	4	4
3	C	UBET26CS0302	PC	Data Structures and Algorithms	3	1	0	0	5	40	60	4	4
4	D	UBET26CS0331	PC-PBL	Object Oriented Programming	3	0	0	1	5.5	60	40	4	4
5	E	UBET26EC0311	GC	Digital Electronics and Logic Design	3	1	0		5	40	60	4	4
6	S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26CS0303	PC	Data Structures Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CS0304	PC	Digital Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*
Total									31/36			25/29*	27/31*

Bridge Course for Lateral Entry Students: 15 Hrs.

SEMESTER 4													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0411	GC	Graph Theory	3	0	0	0	4.5	40	60	3	3
2	B	UBET26CS0401	PC	Database Management Systems	3	1	0	0	5	40	60	4	4
3	C	UBET26CS0402	PC	Operating Systems	3	1	0	0	5	40	60	4	4
4	D	UBET26CS0431	PC-PBL	Computer Organization and Architecture	3	0	0	1	5.5	60	40	4	4
5	E	PE-1	PE	Programme Elective 1 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
6	GS3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26CS0403	PC	Operating Systems Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26CS0404	PC	DBMS Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/ H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28*	26/30*

PROGRAMME ELECTIVE 1					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
E	UBET26CS0451	Software Engineering	3-0-0-0	3	3
	UBET26CS0452	Pattern Recognition	3-0-0-0		3
	UBET26CS0453	Functional Programming	3-0-0-0		3
	UBET26CS0454	Coding Theory	3-0-0-0		3
	UBET26CS0455	Soft Computing	3-0-0-0		3
	UBET26CS0456	Computational Geometry	3-0-0-0		3
	UBET26CS0457	VLSI Design [£]	3-0-0-0		5/3
	UBET26CS0458	Advanced Data Structures [£]	3-0-0-0		5/3

£ Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2026 regulations. If those conditions are not fulfilled, the

MARIAN ENGINEERING COLLEGE (AUTONOMOUS) STUDENT HANDBOOK 2026 -27

student will receive only 3 credits for the course.

SEMESTER 5													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26CS0501	PC	Computer Networks	3	1	0	0	5	40	60	4	4
2	B	UBET26CS0502	PC	Design and Analysis of Algorithms	3	1	0	0	5	40	60	4	4
3	C	UBET26CS0503	PC	Machine Learning	3	0	0	0	4.5	40	60	3	3
4	D	UBET26CS0531	PC-PBL	Microcontrollers	3	0	0	1	5.5	60	40	4	4
5	E	PE - 2	PE	Programme Elective 2 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution Of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26CS0504	PC	Networks Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBCL26CS0505	PC	Machine Learning Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									30/35			23/27*	24/28*
<i>*No Grade Points will be awarded for the MOOC course and I slot course</i> <i>Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working Days</i> <i>Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period</i>													

PROGRAMME ELECTIVE 2					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
E	UBET26CS0551	Software Project Management	3-0-0-0	3	3
	UBET26CS0552	Artificial Intelligence	3-0-0-0		3
	UBET26CS0553	Data Analytics	3-0-0-0		3
	UBET26CS0554	Data Compression	3-0-0-0		3
	UBET26CS0555	Digital Signal Processing	3-0-0-0		3
	UBET26CS0556	Computer Graphics and Multimedia	3-0-0-0		3
	UBET26CS0557	Advanced Computer Architectures	3-0-0-0		3
	UBET26CS0558	Data Mining [‡]	3-0-0-0		5/3
	UBET26CS0559	Advanced Graph Algorithms [‡]	3-0-0-0		5/3

SEMESTER 6													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26CS0601	PC	Compiler Design	3	1	0	0	5	40	60	4	4
2	B	UBET26CS0602	PC	Advanced Computing Systems	3	0	0	0	4.5	40	60	3	3
3	C	PE-3	PE	Programme Elective 3(<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
4	D	UBET26CS0631	PC-PBL	Fundamentals of Cyber Security	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0611	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OE-1	OE	Open Elective 1 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26CS0603	PC	Systems Lab	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26CS0604	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*

Total					32/ 36			23/ 26*	25/ 28*
<i>Industrial Visit: In S5 or S6.12 days are permitted including a maximum of 6 working Days</i> <i>Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period</i>									

PROGRAMME ELECTIVE 3					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
C	UBET26CS0651	Software Testing	3-0-0-0	3	3
	UBET26CS0652	Deep Learning	3-0-0-0		3
	UBET26CS0653	Wireless and Mobile Computing	3-0-0-0		3
	UBET26CS0654	Advanced Database Systems	3-0-0-0		3
	UBET26CS0655	Digital Image Processing	3-0-0-0		3
	UBET26CS0656	Fundamentals of Cryptography	3-0-0-0		3
	UBET26CS0657	Cloud Computing [‡]	3-0-0-0		5/3
	UBET26CS0658	Mobile Application Development [‡]	3-0-0-0		5/3
OPEN ELECTIVE 1					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
O	UBET26CS0681	Data Structures	3-0-0-0	3	3
	UBET26CS0682	Data Communication	3-0-0-0		3
	UBET26CS0683	Foundations of Cryptography	3-0-0-0		3
	UBET26CS0684	Machine Learning for Engineers	3-0-0-0		3
	UBET26CS0685	Object Oriented Programming	3-0-0-0		3

SEMESTER 7													
Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-4	PE	Programme Elective 4 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
2	B	PE-5	PE	Programme Elective 5 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
3	O	OE-2	OE	Open Elective 2 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
4	I*	HUM	IE	Humanities Elective (<i>List follows</i>)	2	0	0	0	3	50	50	2	2
5	S	UBES26CS0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	UBEP26CS0701/ UBEP26CS7801/ UBKN26XT7891	PC	Major Project –Phase 1/ Major Project/ Internship (4-6 Months) [‡]	0	0	0	8	8	50/ 100/ 50	0	4	8
7	R/H			Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total									26/ 31			17/ 20*	22/ 25*

[‡] Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the 1 slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Student can do Phase 1 of Major Project in S7 and phase 2 in S8 (no internship in S7 of S8) Option 2: Work on the Major Project in S7 in the institute/department under the mentorship of faculty members (can do internship in S8). Option 3: Internship in an Industry/organization in S7 (Student has to undertake the Major Project in S8).

PROGRAMME ELECTIVE 4					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits

A	UBET26CS0751	Web Programming	3-0-0-0	3	3
	UBET26CS0752	Bioinformatics	3-0-0-0		3
	UBET26CS0753	Information Security	3-0-0-0		3
	UBET26CS0754	Embedded Systems	3-0-0-0		3
	UBET26CS0755	Blockchain and Cryptocurrencies	3-0-0-0		3
	UBET26CS0756	Realtime Systems	3-0-0-0		3
	UBET26CS0757	Approximation Algorithms	3-0-0-0		5
	UBET26CS0758	Computer Vision[£]	3-0-0-0		5/3
	UBET26CS0759	Topics in Theoretical Computer Science[£]	3-0-0-0		5/3

PROGRAMME ELECTIVE 5

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
B	UBET26CS0761	Advanced Computer Networks	3-0-0-0	3	3
	UBET26CS0762	Responsible Artificial Intelligence	3-0-0-0		3
	UBET26CS0763	Fuzzy Systems	3-0-0-0		3
	UBET26CS0764	Digital Forensics	3-0-0-0		3
	UBET26CS0765	High-Performance Computing	3-0-0-0		3
	UBET26CS0766	Programming Languages	3-0-0-0		3
	UBET26CS0767	Parallel Algorithms	3-0-0-0		3
	UBET26CS0768	Internet of Things[£]	3-0-0-0		5/3
	UBET26CS0769	Algorithms For Data Science[£]	3-0-0-0		5/3

OPEN ELECTIVE 2

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
O	UBET26CS0781	Cyber Security	3-0-0-0	3	3
	UBET26CS0782	Cloud Computing	3-0-0-0		3
	UBET26CS0783	Software Engineering	3-0-0-0		3
	UBET26CS0784	Computer Networks	3-0-0-0		3
	UBET26CS0785	Mobile Application Development	3-0-0-0		3

HUMANITIES ELECTIVE

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
I	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control	2-0-0-0	2	2
	UBLT26XT0771	Proficiency course in French (MOOC)(B1 level)	2-0-0-0		2
	UBLT26XT0772	Proficiency Course in German (B1 Level) (MOOC)	2-0-0-0		2
	UBLT26XT0773	Proficiency Course in Spanish (B1 Level) (MOOC)	2-0-0-0		2
	UBLT26XT0774	Introduction to Japanese Language and Culture (N5 level) (MOOC)	2-0-0-0		2

SEMESTER 8

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	Programme Elective 6 (List follows)	3	0	0	0	4.5	40	60	3	3
2	O	OE-3	OE	Open Elective 3	3	0	0	0	4.5	40	60	3	3

3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P**	UBEP26CS0801/ UBEP26CS7801/ UBKN26XT7891	PC	Major Project Phase 2/ Major Project/ Internship (4-6) months	0	0	0	8	8	100/ 100/ 50	0	4	8
Total									20			11	16

‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Student can do Phase 1 of Major Project in S7 and phase 2 in S8 (no internship in S7 of S8) Option 2: Work on the Major Project in S7 in the institute/department under the mentorship of faculty members (can do internship in S8). Option 3: Internship in an Industry/organization in S7 (Student has to undertake the Major Project in S8).

PROGRAMME ELECTIVE 6

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
B	UBET26CS0851	Software Architectures	3-0-0-0	3	3
	UBET26CS0852	Natural Language Processing	3-0-0-0		3
	UBET26CS0853	Topics in Security	3-0-0-0		3
	UBET26CS0854	Computational Complexity	3-0-0-0		3
	UBET26CS0855	Speech and Audio Processing	3-0-0-0		3
	UBET26CS0856	Storage Systems	3-0-0-0		3
	UBET26CS0857	Prompt Engineering	3-0-0-0		3
	UBST26CS0858	Computational Number Theory	3-0-0-0		3
	UBET26CS0859	Next Generation Interaction Design	3-0-0-0		5/3

OPEN ELECTIVE 3

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
O	UBET26CS0881	Introduction to Algorithms	3-0-0-0	3	3
	UBET26CS0882	Web Programming	3-0-0-0		3
	UBET26CS0883	Software Testing	3-0-0-0		3
	UBET26CS0884	Internet of Things	3-0-0-0		3
	UBET26CS0885	Computer Graphics	3-0-0-0		3

COURSE TYPE SUMMARY

HMC COURSES

Sl. No.	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India. (MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9

BSC COURSES

Sl. No:	Semester	Course Area	Credits
1	S1	Mathematics for Information Science-1	3
2	S1/S2	Physics for Information Science	4
3		Chemistry for Information Science	4
4	S2	Mathematics for Information Science-2	3

5	S3	Mathematics for Information Science-3	3
6	S4	Mathematics for Information Science-4	3
Total Credits			20
PROGRAMME CORE COURSES (PC)			
Sl. No:	Semester	Course Area	Credits
1	S2	Discrete Mathematics	4
2	S3	Theory of Computation	4
3		Data Structures and Algorithms	4
4		Data Structures Lab	2
5		Digital Lab	2
6	S4	Database Management Systems	4
7		Operating Systems	4
8		Operating Systems Lab	2
9		DBMS Lab	2
10	S5	Computer Networks	4
11		Design and Analysis of Algorithms	4
12		Machine Learning	3
13		Networks Lab	2
14	S6	Machine Learning Lab	2
15		Compiler Design	4
16		Advanced Computing Systems	3
17		Systems Lab	2
Total Credits (Theory-10, Lab-7)			52
ESC COURSES (Group A)			
Sl. No:	Semester	Course Area	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	S2	Foundations of Computing: From Hardware Essentials to Web Design	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
Total Credits			29

PROGRAMME CORE- PROJECT BASED LEARNING (PC-PBL)			
Sl. No:	Semester	Course Area	Credits
1	S3	Object Oriented Programming	4
2	S4	Computer Organization and Architecture	4
3	S5	Microcontrollers	4
4	S6	Fundamentals of Cyber Security	4
Total Credits			16

PROGRAMME ELECTIVE COURSES (PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3

4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18

OPEN ELECTIVE COURSES/INDUSTRY LINKED ELECTIVE COURSES			
Sl. No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
Total Credits			9

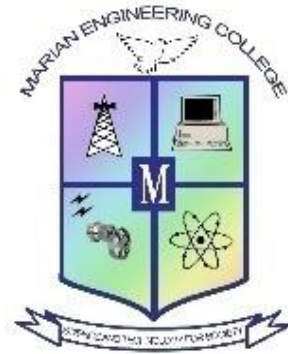
PROJECT / INTERNSHIP / SEMINAR			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini project	2
2	S7	Seminar	2
3		Major Project/Internship	4
4	S8	Major Project/Internship/Research Project	4
Total Credits			12

ACTIVITY POINTS

GROUPS, POINTS & CREDITS				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS, NCC, NSO (National Sports Organization)	1 (40 Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.) / Valid GATE Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/Workshop Activities/Professional Body Activities, Participation in University level/State Level/National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/International Level Hackathons	1 (40 Points)	
8		Skilling Certificates (Approved by the University)		

- *Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.*
- *For B. Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.*

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B. Tech Curriculum-2026 Semester I to VIII

Programme:

Electrical and Electronics Engineering (Group B)

Branch code:EE

SEMESTER 1

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and Physical Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information Science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical and Electronics Engineering (Part1:Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part2:ElectronicsEngineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I* S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total										30/ 32			25/ 26

10 Days Compulsory Induction Program and UHV\Bridge Course (Mathematics or Introduction to Computer Science) : 15 Hrs.

L-T-P-R: Lecture-Tutorial-Practical-Project | SS (Self Study) Hours=1.5L+0.5T+0.5P+R

CIA: Continuous Internal Assessment | ESE: End Semester Examination

****No Grade Points will be awarded for the I slot course**

SEMESTER 2

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information Science and Electrical Science									
3	C	UBET26CE0211	GC	Engineering Mechanics	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBET26EE0201	PC	Measurements and Instrumentation	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship and IPR	3	0	0	0	4.5	60	40	3	3
7	I* S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50	1	2
Total										34			27/ 28

****No Grade Points will be awarded for the I slot course.**

SEMESTER 3

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical Science -3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26EE0301	PC	Circuits and Networks	3	1	0	0	5	40	60	4	4
3	C	UBET26EE0302	PC	DC Machines and Transformers	3	1	0	0	5	40	60	4	4
4	D	UBET26EE0331	PB	Analog Electronics	3	0	0	1	5.5	60	40	4	4
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0		5	40	60	4	4
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers									
		UBHT26HU3422		Engineering Ethics and Sustainable Development	2	0	0	0	3	50	50	2	2
7	L	UBEL26EE0303	PC	Circuits and Measurements Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EE0304	PC	Analog Electronics Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*
Total										31/36			27/31*

Bridge Course for Lateral Entry Students: 15 Hrs.

SEMESTER 4

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0412	GC	Probability Statistics and Random Process	3	0	0	0	4.5	40	60	3	3
2	B	UBET26EE0401	PC	Synchronous and Induction Machines	3	1	0	0	5	40	60	4	4
3	C	UBET26EE0402	PC	Power Electronics and Drives	3	1	0	0	5	40	60	4	4
4	D	UBET26EE0431	PB	Digital Electronics	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 1	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers									
		UBHT26HU3422		Engineering Ethics and Sustainable Development	2	0	0	0	3	50	50	2	2
7	L	UBEL26EE0403	PC	DC Machines and Transformers Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EE0404	PC	Power Electronics and Drives Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/ Honours Course	3	1	0	0	5			4*	4*
Total										31/36			26/30*

PROGRAM ELECTIVE I

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26EE0451	Electronic Instrumentation	3-0-0-0	3	3
	UBET26EE0452	Renewable Energy Sources	3-0-0-0		3
	UBET26EE0453	Mathematics for Machine Learning	3-0-0-0		3
	UBET26EE0454	Theory of Computation	3-0-0-0		3

	UBET26EE0455	Computer Organization	3-0-0-0		3
	UBET26EE0456	Solid State Devices	3-0-0-0		3
	UBET26EE0457	Illumination Technology	3-0-0-0		3
	UBET26EE0458	Object Oriented Programming	3-0-0-0		3

£ **Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2026 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.**

SEMESTER 5													
Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26EE0501	PC	Power Generation, Transmission and Protection	3	1	0	0	5	40	60	4	4
2	B	UBET26EE0502	PC	Electromagnetic Theory	3	1	0	0	5	40	60	4	4
3	C	UBET26EE0503	PC	Signals and Systems	3	0	0	0	4.5	40	60	3	3
4	D	UBET26EE0531	PB	Microprocessor and Embedded Systems	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 2	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution of India(MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26EE0504	PC	AC Machines Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EE0505	PC	Microprocessor and Embedded Systems Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/ H			Remedial/Minor/ Honours Course	3	1	0	0	5			4*	4*
	S5/ S6	Industrial Visit(Maximum12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training											
Total										30/ 35			24/28*
<i>*No Grade Points will be awarded for the MOOC course and I slot course</i> <i>Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working Days</i> <i>Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period</i>													

PROGRAM ELECTIVE 2

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26EE0551	Energy Storage Systems	3-0-0-0	3	3
	UBET26EE0552	Electric Vehicles	3-0-0-0		3
	UBET26EE0553	Digital System Design	3-0-0-0		3
	UBET26EE0554	Software Engineering	3-0-0-0		3
	UBET26EE0555	Data Structures	3-0-0-0		3
	UBET26EE0556	Introduction to Machine Learning	3-0-0-0		3
	UBET26EE0557	Computer Network Systems	3-0-0-0		3

SEMESTER 6

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26EE0601	PC	Control Systems	3	1	0	0	4.5	40	60	4	4
2	B	UBET26EE0602	PC	Electrical System Design and Estimation	3	0	0	0	4.5	40	60	3	3
3	C	Programme	PE	PE-3	3	0	0	0	4.5	40	60	3	3

Elective 3														
4	D	UBET26EE0631	PB	Power System Analysis	3	0	0	1	5.5	60	40	4	4	
5	E	UBET26MD0611	GC	Design Thinking and Product Development(Group Specific Syllabus)	2	0	0	0	3	40	60	2	2	
6	O	Open Elective 1	OE/IE	OE/ILE-1	3	0	0	0	4.5	40	60	3	3	
7	L	UBEL26EE0603	PC	Control Systems Lab	0	0	3	0	1.5	50	50	2	3	
9	P	UBEL26EE0604	PC	Power Systems Lab	0	0	2	0	1	50	50	1	2	
10	R/ M/ H			Remedial/Minor/ Honours Course	3	0	0	0	4.5			3*	3*	
	S5/ S6	Industrial Visit(Maximum of 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
Total										32/ 36			26/29*	

Industrial Visit: In S5 or S6, 12 days are permitted including a maximum of 6 working Days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period

PROGRAM ELECTIVE 3

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26EE0651	Digital protection of power systems	3-0-0-0	3	3
	UBET26EE0652	Operating Systems	3-0-0-0		3
	UBET26EE0653	High Voltage Engineering	3-0-0-0		3
	UBET26EE0654	Internet of Things	3-0-0-0		3
	UBET26EE0655	Digital Signal Processing	3-0-0-0		3
	UBET26EE0656	Cloud Computing	3-0-0-0		3
	UBET26EE0657	Optimization Techniques	3-0-0-0		3

OPEN ELECTIVE 1

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0681	Introduction to Control Systems	3-0-0-0	3	3
	UBET26EE0682	Energy Management	3-0-0-0		3
	UBET26EE0683	Renewable Energy Systems	3-0-0-0		3

SEMESTER 7

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	Programme Elective 4	PE	Programme Elective 4	3	0	0	0	4.5	40	60	3	3
2	B	Programme Elective 5	PE	Programme Elective 5	3	0	0	0	4.5	40	60	3	3
3	O	Open Elective 2	OE/IE	Open Elective 2	3	0	0	0	4.5	40	60	3	3
4	I*	Humanities Elective	UE	Humanities Elective	2	0	0	0	3	50	50	2	2
5	S	UBES26EE0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P	UBEP26EE0701/ UBEP26EE7801/ UBKN26XT7891	PC	Major Project Phase 1/ Major Project /Internship (4-6Months)	0	0	0	8	8	50/ 100/ 50	0	4	8
Total										26/ 31			22/25*

‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Major Project in the institute/department under the mentorship of faculty members (can do internship is S8). Option 2: Full semester Internship in an Industry/organization in S7 (Student has to undertake the Major Project in S8).

PROGRAM ELECTIVE 4

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26EE0751	Power System Operation and Control	3-0-0-0	3	3
	UBET26EE0752	Energy Management and Auditing	3-0-0-0		3
	UBET26EE0753	Special Electrical Machines	3-0-0-0		3
	UBET26EE0754	Discrete Time Control Systems	3-0-0-0		3
	UBET26EE0755	Digital Image Processing	3-0-0-0		3

PROGRAM ELECTIVE 5

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26EE0761	Power Quality	3-0-0-0	3	3
	UBET26EE0762	Non linear Control Systems	3-0-0-0		3
	UBET26EE0763	Deep Learning	3-0-0-0		3
	UBET26EE0764	Computer Vision	3-0-0-0		3

OPEN ELECTIVE 2

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0781	Design of Solar PV systems	3-0-0-0	3	3
	UBET26EE0782	Hybrid and Electric Vehicles	3-0-0-0		3
	UBET26EE0783	Introduction to Energy Storage Systems	3-0-0-0		3

HUMANITIES ELECTIVE

UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control
UBLT26XT0771	Proficiency course in French.(MOOC) (B1 level)
UBLT26XT0772	Proficiency Course in German (B1Level).(MOOC)
UBLT26XT0773	Proficiency Course in Spanish (B1 Level)(MOOC)
UBLT26XT0774	Introduction to Japanese Language and Culture(N5level).(MOOC)

SEMESTER 8

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	Programme Elective -6	3	0	0	0	4.5	40	60	3	3
2	O	OE-3	OE/IE	Open Elective 3	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P	UBEP26EE0801/ UBEP26EE7801/ UBKN26XT7891	PC	Major Project Phase -II / Major Project / Internship (4-6 Months)	0	0	0	8	8	50/ 100/ 50	0	4	8
Total										20			16

‡ *Internship Students: Self Study/MOOC Approved by the Institute/Online Classes*

* *No Grade Points will be awarded for the I slot courses*

** *Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (completed internship in S7). Option 2: Work on the second phase of the Major Project in the institute/department under the mentorship of faculty members (No internship ins S7 or S8). Option 3: Full semester Internship in an Industry/organization in S8 (Major Project completed S7).*

PROGRAM ELECTIVE 6

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26EE0851	Smart Grid Technologies	3-0-0-0	3	3
	UBET26EE0852	HVDC and FACTS	3-0-0-0		3
	UBET26EE0853	Mechatronic Systems	3-0-0-0		3
	UBET26EE0854	Electronic Communication	3-0-0-0		3

OPEN ELECTIVE 3

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0881	Introduction to Robotics	3-0-0-0	3	3
	UBET26EE0882	PLC and Automation	3-0-0-0		3
	UBET26EE0883	Mechatronic Systems and Control	3-0-0-0		3

COURSE TYPE SUMMARY

HMC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India. (MOOC)	1
5	S7	Elective(Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9

BSC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1	Group Specific Mathematics-1	3
2	S1/S2	Physics for Engineers	4
3		Chemistry for Engineers	4
4	S2	Group Specific Mathematics-2	3
5	S3	Group Specific Mathematics-3	3
6	S4	Group Specific Mathematics-4	3
Total Credits			20

ESC Courses (GroupB)			
Sl. No:	Semester	Course Area	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1

5	S2	Foundations of Computing :From Hardware Essentials to Web Design/ Engineering Mechanics (EEE, CP, RA and RU)	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
Total Credits			29

Programme Core Courses(PC) (CE,EE,ME)

Sl. No:	Semester	Course Area	Credits
1	S2	Core1-Measurements and Instrumentation	4
2	S3	Core2-Circuits and Networks	4
3		Core3-DC Machines and Transformers	4
4		Lab1-Circuits and Measurements Lab	2
5		Lab2-Analog Electronics Lab	2
6		Core4-Synchronous and Induction Machines	4
7	S4	Core5-Power Electronics and Drives	4
8		Lab3-DC Machines and Transformers Lab	2
9		Lab4-Power Electronics and Drives Lab	2
11	S5	Core6-PowerGeneration,Transmission and Protection	4
		Core7-Electromagnetic Theory	4
12		Core8-Signals and Systems	3
13		Lab5-AC Machines Lab	2
14		Lab6-Microprocessor and Embedded Systems Lab	2
15	S6	Core9-Control Systems	3
16		Core10-Electrical System Design	3
		Lab7-Control Systems Lab	3
17		Lab8-Power System Lab	3
Total Credits(Theory-10,Lab-8)			52

Programme Core-Project Based Learning(PBL)

Sl. No:	Semester	Course Area	Credits
1	S3	Core PBL-1	4
2	S4	Core PBL-2	4
3	S5	Core PBL-3	4
4	S6	Core PBL-4	4
Total Credits			16

Programme Elective Courses(PE)

Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18

Open Elective Courses/ Industry Elective(OE/IEL)

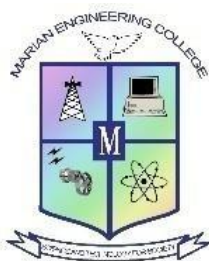
Sl.No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3

3	S8	OE/ILE-3	3
Total Credits			

Project / Internship and Seminar				
Sl. No:	Semester	Course Type	Credits	
1	S6	Mini Project	2	
2	S7	Seminar	2	
3		Major project/ Internship/ Research project	4	
4	S8	Major project/ Internship/ Research project	4	
Total Credits			10	
Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1		NSS,NCC,NSO (National Sports Organization)		
2	I	Arts/Sports/Games	1 (40 Points)	
3		Union/Club Activities		
4		English Proficiency Certification (TOFEL, IELTS, BEC etc.)		
5		Aptitude Proficiency Certification (GRE,CAT, GMAT etc.)/Valid Gate Score.		
	II		1 (40 Points)	3 Credits (One credit from each Group)
		Short Term Internship (Minimum 2 weeks),Clinical Exposure/Training(Minimum 2weeks),Conferences/Paper		
6		Presentation/Workshop Activities/ Professional Body Activities,		
		Participation in University level/State Level/National Level		
		Hackathons		
7		Journal Publication, Patents,Start-Up,Innovation,Winners of National/ International Level Hackathons	1	
	III		(40 Points)	
8		Skilling Certificates (Approved by the University)		

- *Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.*
- *For B.Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.*

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B.Tech Curriculum-2026 Semester I to VIII

**Programme:
Electrical and Computer Engineering (Group B)**

Branch Code:EL

SEMESTER 1

SEMESTER 1													
Sl. No	Slot	Course Code	Course Category	Course Title(Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and Physical Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for information science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical and Electronics Engineering(part1:Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part2:Electronics Engineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50*	1	2
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30/ 32		20		25/ 26
10 Days Compulsory Induction Program and UHV Bridge Course (Mathematics or Introduction to Computer Science):15Hrs. L-T-P-R: Lecture-Tutorial-Practical-Project SS (Self Study) Hours=1.5L+0.5T+0.5 P+R CIA: Continuous Internal Assessment ESE: End Semester Examination **No Grade Points will be awarded for the I slot course													

SEMESTER 2

Sl. No:	Slot	CourseCode	Course Category	Course Title (Course Name)	Credit Structure				SS	TotalMarks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical Science -2	3	0	0	0	4.5	40	60	3	3
2	B S1/S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information science and Electrical Science									
3	C	UBCT26CS0211	GC	Foundations of Computing :From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBET26EL0201	PC	Analog Electronic Circuits	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship and IPR	3	0	0	0	4.5	60	40	3	3
7	I** S1/S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50*	1	2
**No Grade Points will be awarded for the I slot course. Total									34		24	27/28	

SEMESTER 3													
Sl. No:	Slot	Course Code	Course Category	Course Title(Course Name)	Credit Structure				S S	Total Marks		Credit s	Hrs./Week
					L	T	P	R		CI A	ESE		
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical Science -3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26EE0301	PC	Circuits and Networks	3	1	0	0	5	40	60	4	4
3	C	UBET26EL0302	PC	Data Structures and Algorithms	3	1	0	0	5	40	60	4	4
4	D	UBET26EL0331	PB	Digital Electronics and Logic System Design	3	0	0	1	5.5	60	40	4	4
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0		5	40	60	4	4
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26EL0303	PC	Analog and Digital Electronics Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EL0304	PC	Data Structures Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*
Total									31/36			25/29*	27/31*
Bridge Course for Lateral Entry Students: Total 15 Hrs.													

SEMESTER 4													
Sl. No:	Slot	Course Code	Course Category	Course Title(Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CI A	ESE		
1	A	UBST26MA0412	GC	Probability , Statistics and Random Process	3	0	0	0	4.5	40	60	3	3
2	B	UBET26EL0401	PC	Electrical Machines	3	1	0	0	5	40	60	4	4
3	C	UBET26EL0402	PC	Computer Organization and Architecture	3	1	0	0	5	40	60	4	4
4	D	UBET26EL0431	PB	Object Oriented Programming Using Java	3	0	0	1	5.5	60	40	4	4
5	E	Program Elective 11	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	GS3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26EL0402	PC	Electrical Machines Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EL0403	PC	Object Oriented Programming (JAVA) Lab	0	0	3	0	1.5	50	50	2	3
9	/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28*	26/30*
PROGRAM ELECTIVE I													
SLOT		COURSE CODE		COURSES				L-T-P-R		HOURS		CREDIT	

E	UBET26EE0451	Electronic Instrumentation	3-0-0-0	3	3
	UBET26EE0452	Renewable Energy Sources	3-0-0-0		3
	UBET26EE0453	Mathematics for Machine Learning	3-0-0-0		3
	UBET26EE0454	Theory of Computation	3-0-0-0		3
	UBET26EL0451	Solid State Devices	3-0-0-0		3
	UBET26EL0452	Electrical Measurement and Measuring Instruments	3-0-0-0		3

Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2026 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

SEMESTER5

Sl. No:	Slot	Course Code	Course Category	Course Title(Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CI A	ES E		
1	A	UBET26EL0501	PC	Microcontroller and Embedded Systems	3	1	0	0	5	40	60	4	4
2	B	UBET26EL0502	PC	Power Electronics	3	1	0	0	5	40	60	4	4
3	C	UBET26EL0503	PC	Power Systems	3	0	0	0	4.5	40	60	3	3
4	D	UBET26EL0531	PB	Database Management System	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective 2	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution of India(MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26EL0504	PC	Power Electronics Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EL0505	PC	Microcontroller and Embedded Systems Lab	0	0	3	0	1.5	50	50	2	3
9	/M/ H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
	S5/S6	ximum12Daysarepermitted,NotExceedingmorethan6WorkingDays)/Industrial Training											
Total									30/35			23/27*	24/28*

*No Grade Points will be awarded for the MOOC course and I slot course

Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working Days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAMME ELECTIVE 2

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26EE0551	Energy Storage Systems	3-0-0-0	3	3
	UBET26EE0552	Electric Vehicles	3-0-0-0		3
	UBET26EE0553	Digital System Design	3-0-0-0		3
	UBET26EE0554	Software Engineering	3-0-0-0		3
	UBET26EL0551	Modern Operating Systems	3-0-0-0		3
	UBET26EL0552	Introduction to Signals and Systems	3-0-0-0		3

SEMESTER6

Sl. No.	Slot	Course Code	Course Category	Course Title(Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/Week
					L	T	P	R		CI A	ESE		

1	A	UBET26EL0601	PC	Linear Control Systems	3	1	0	0	5	40	60	4	4
2	B	UBET26EL0602	PC	Computer Communication and Network Security	3	0	0	0	4.5	40	60	3	3
3	C	Programme Elective 3	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	UBET26EL0631	PB	Machine Learning	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0611	GC	Design Thinking and Product Development(Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OpenElective1	OE/IE	OE/ILE-1	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26EL0603	PC	Electrical Simulation Lab	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26EL0604	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
Total										32/36		23/26*	25/28*

Industrial Visit: In S5 or S6. 12 days are permitted including a maximum of 6 working Days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period

PROGRAM ELECTIVE3

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26EE0651	Digital protection of power systems	3-0-0-0	3	3
	UBET26EL0651	R-Programming	3-0-0-0		3
	UBET26EE0653	High Voltage Engineering	3-0-0-0		3
	UBET26EE0654	Internet of Things	3-0-0-0		3
	UBET26EE0655	Digital Signal Processing	3-0-0-0		3
	UBET26EE0656	Cloud Computing	3-0-0-0		3
	UBET26EE0657	Optimization Techniques	3-0-0-0		3

OPEN ELECTIVE1

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0681	Introduction to Control Systems	3-0-0-0	3	3
	UBET26EE0682	Energy Management	3-0-0-0		3
	UBET26EE0683	Renewable Energy Systems	3-0-0-0		3

SEMESTER7

Sl. No :	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/Week
					L	T	P	R		CIA	ESE		
1	A	Programme Elective 4	PE	Programme Elective 4 (List follows)	3	0	0	0	4.5	40	60	3	3
2	B	Programme Elective 5	PE	Programme Elective 5 (List follows)	3	0	0	0	4.5	40	60	3	3
3	O	OpenElective2	OE	OpenElective2(List follows)	3	0	0	0	4.5	40	60	3	3

4	I*	Humanities Elective	IE	Humanities Elective (List follows)	2	0	0	0	3	50	50	2	2
5	S	UBES26EL0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P	UBEP26EL0701/ UBEP26EL7801/ UBKN26XT7891	PC	Major Project-Phase1/ Major Project/ Internship(4-6Months) ¥	0	0	0	8	8	50/ 100/ 50	0	4	8
Total									26			17	22

¥Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (completed internship in S7). Option 2: Work on the second phase of the Major Project in the institute/department under the mentorship of faculty members (No internship in S7 or S8).

PROGRAM ELECTIVE 4

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26EE0751	Power System Operation and Control	3-0-0-0	3	3
	UBET26EE0752	Energy Management and Auditing	3-0-0-0		3
	UBET26EE0753	Special Electrical Machines	3-0-0-0		3
	UBET26EE0754	Discrete Time Control Systems	3-0-0-0		3
	UBET26EE0755	Digital Image Processing	3-0-0-0		3
	UBET26EL0751	Fundamentals of Cyber Security	3-0-0-0		3

PROGRAM ELECTIVE 5

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26EE0761	Power Quality	3-0-0-0	3	3
	UBET26EL0761	Nonlinear System and Control	3-0-0-0		3
	UBET26EE0763	Deep Learning	3-0-0-0		3
	UBET26EE0764	Computer Vision	3-0-0-0		3
	UBET26EL0761	Compiler Design	3-0-0-0		3
	UBET26EL0762	Electrical System Design	3-0-0-0		3

OPEN ELECTIVE 2

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0781	Design of Solar PV systems	3-0-0-0	3	3
	UBET26EL0781	Electrical and Hybrid Vehicles	3-0-0-0		3
	UBET26EE0783	Introduction to Energy Storage Systems	3-0-0-0		3

HUMANITIES ELECTIVE

Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
I	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control	2-0-0-0	2	2
	UBLT26XT0771	Proficiency course in French(MOOC)(B1 level)	2-0-0-0		2
	UBLT26XT0772	Proficiency Course in German(B1 Level)(MOOC)	2-0-0-0		2
	UBLT26XT0773	Proficiency Course in Spanish(B1 Level)(MOOC)	2-0-0-0		2
	UBLT26XT0774	Introduction to Japanese Language and Culture (N5 level) (MOOC)	2-0-0-0		2

SEMESTER 8

Sl. No. :	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	Programme Elective 6 (List follows)	3	0	0	0	4.5	40	60	3	3
2	O	OE-3	OE	Open Elective 3	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P	UBEP26EL0801/ UBEP26EL7801/ UBKN26XT7891	PC	Major Project Phase 2/ Major Project/ Internship(4-6) months	0	0	0	8	8	50/ 100/ 50	0	4	8
Total									20			11	16

‡Internship Students :Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (completed internship in S7). Option 2: Work on the second phase of the Major Project in the institute/department under the mentorship of faculty members (No internship in S7 or S8). Option 3: Full semester Internship in an Industry/organization in S8 (Major Project completed S7).

PROGRAMELECTIVE6

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26EE0851	Smart Grid Technologies	3-0-0-0	3	3
	UBET26EE0852	HVDC and FACTS	3-0-0-0		3
	UBET26EE0853	Mechatronic Systems	3-0-0-0		3
	UBET26EE0854	Electronic Communication	3-0-0-0		3

OPENELECTIVE3

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EE0881	Introduction to Robotics	3-0-0-0	3	3
	UBET26EE0882	PLC and Automation	3-0-0-0		3
	UBET26EE0883	Mechatronic Systems and Control	3-0-0-0		3

COURSE TYPE SUMMARY

HMC COURSES			
Sl.No.	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India.(MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9

BSC COURSES			
Sl.No:	Semester	Course Area	Credits
1	S1	Group Specific Mathematics-1	3
2	S1/S2	Physics for Engineers	4
3		Chemistry for Engineers	4
4	S2	Group Specific Mathematics-2	3
5	S3	Group Specific Mathematics-3	3
6	S4	Group Specific Mathematics-4	3
Total Credits			20

ESC COURSES(GROUPB)			
Sl.No:	Semester	CourseArea	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	S2	Foundations of Computing :From Hardware Essentials to Web Design/ Engineering Mechanics (EEE, CP,BR, RA and RU)	3
6		Programming in C	4
7		Engineering Entrepreneurship andI PR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
TotalCredits			29

PROGRAMME CORE COURSES(PC)			
Sl.No:	Semester	Course Area	Credits
1	S2	Core1-Analog Electronic Circuits	4
2	S3	Core2-Circuits and Networks	4
3		Core3-Data Structures	4
4		Lab1-Analog and Digita lElectronic sLab	2
5		Lab2-Data Structures Lab	2
6	S4	Core4-Electrical Machines	4
7		Core5-Computer Organization and Architecture	4
8		Lab3-Electrical Machines Lab	2
9		Lab4-Object Oriented Programming (JAVA)Lab	2
10	S5	Core6-Microcontrollers and Embedded Systems	4
11		Core7-Power Electronics	4
12		Core8-Power Systems	3
13		Lab5-Microcontrollers and Embedded Systems Lab	2
14		Lab6-Power Electronics Lab	2
15	S6	Core9-Linear Control Systems	4
16		Core10-Computer Networks	3
17		Lab7-Electrical Simulation Lab	2
Total Credits (Theory-10,Lab-7)			52

PROGRAMME CORE-PROJECT BASED LEARNING(PBL)			
Sl.No:	Semester	Course Area	Credits
1	S3	Core PBL-1	4
2	S4	Core PBL-2	4
3	S5	Core PBL-3	4
4	S6	Core PBL-4	4
Total Credits			16
PROGRAMME ELECTIVE COURSES(PE)			
Sl.No:	Semester	Credits	
1	S4	3	
2	S5	3	
3	S6	3	
4	S7	3	
5		3	
6	S8	3	
TotalCredits		18	
OPEN ELECTIVE COURSES/INDUSTRYELECTIVE (OE/IEL)			
Sl.No:	Semester	CourseType	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
TotalCredits			9
PROJECT/INTERNSHIP AND SEMINAR			
Sl.No:	Semester	Credits	
1	S6	2	
2	S7	2	
3		4	
4	S8	4	
Total Credits		12	

ACTIVITY POINTS				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS,NCC,NSO(National Sports Organization)	1 (40Points)	3Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL,IELTS,BECetc.)	1 (40Points)	
5		Aptitude Proficiency Certification (GRE,CAT,GMATetc.)/Valid Gate Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/Workshop Activities/Professional Body Activities, Participation in University level/State Level/ National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/ International Level Hackathons	1 (40Points)	
8		Skilling Certificates (Approved by the University)		

- Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.
- For B.Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B.Tech Curriculum-2026 Semester I to VIII

Electronics and Communication Engineering *Branch Code: EC*

SEMESTER 1

Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and Physical science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for information science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical & Electronics Engineering (Part1:ElectricalEngineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part2:ElectronicsEngineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50*	1	2
7	I* S1/S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221	IC	Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30			20	25/26

SEMESTER 2

Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for information science and Electrical Science									
3	C	UBET26CS0211	GC	Foundations of Computing: From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBET26EC0201	PC	Network Theory	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I* S1/S2	UBYT26PE1221	GC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50*	1	2
Total									33			23	27/28

SEMESTER 3

Sl. No:	Slot	Course Code	c c	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hr s./ We ek
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical science -3	3	0	0	0	4.5	40	60	3	3
2	B	UBCT26EC0301	PC	Solid State Devices	3	1	0	0	5	40	60	4	4
3	C	UBET26EC0302	PC	Analog Circuits	3	1	0	0	5	40	60	4	4
4	D	UBET26EC0331	PB	Logic Circuit Design	3	0	0	1	5.5	60	40	4	4
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0		5	40	60	4	4
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and sustainable Development									
7	L	UBEL26EC0303	PC	Analog Circuits Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EC0304	PC	Logic Circuit Design Lab	0	0	3	0	1.5	50	50	2	3
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*
Total									31/36			25/29	27/31

SEMESTER 4

Sl. No:	Slot	Course Code	C C	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0412	GC	Probability, statistics and Random Process	3	0	0	0	4.5	40	60	3	3
2	B	UBET26EC0401	PC	Signals and Systems	3	1	0	0	5	40	60	4	4
3	C	UBET26EC0402	PC	Linear Integrated Circuits	3	1	0	0	5	40	60	4	4
4	D	UBET26EC0431	PC-PBL	Microcontrollers	3	0	0	1	5.5	60	40	4	4
5	E	ProgramMe Elective 1	PE	PE-1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UBHT26EC3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26EC3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26EC0403	PC	Linear Integrated Circuits Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26EC0404	PC	Microcontroller Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28	26/30

PROGRAM ELECTIVE I

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26EC0451	Instrumentation	3-0-0-0	3	3
	UBET26EC0452	Power Electronics	3-0-0-0		3
	UBET26EC0453	Machine Learning	3-0-0-0		3
	UBET26EC0454	Object Oriented Programming	3-0-0-0		3
	UBET26EC0455	Digital System Design	3-0-0-0		3
	UBET26EC0456	Digital Systems and VLSI Design	3-0-0-0		5/3

Level 5 courses in the B.Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B.Tech. -2024 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

SEMESTER 5

Sl. No:	Slot	Course Code	CC	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26EC0501	PC	Electromagnetics	3	1	0	0	5	40	60	4	4
2	B	UBET26EC0502	PC	Analog & Digital Communication	3	1	0	0	5	40	60	4	4
3	C	UBET26EC0503	PC	Control Systems	3	0	0	0	4.5	40	60	3	3
4	D	UBET26EC0531	PC-PBL	Digital Signal Processing	3	0	0	1	5.5	60	40	4	4
5	E	Programme Elective2	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution of India(MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26EC0504	PC	DSP Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBCL26EC0505	PC	Communication Lab I	0	0	3	0	1.5	50	50	2	3
9	R/M / H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									30/35			23/27	24/28

*No Grade Points will be awarded for the MOOC course and I slot course.

Industrial Training:

Students who are not participating in the industrial visit must attend industrial training during the period.						PROGRAM ELECTIVE 2	
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT		
E	UBET26EC0551	Biomedical Engineering	3-0-0-0	3	3		
	UBET26EC0552	Data Structures	3-0-0-0		3		
	UBET26EC0553	Sensors and Actuators	3-0-0-0		3		
	UBET26EC0554	ARM architecture and programming	3-0-0-0		3		
	UBET26EC0555	High Speed Digital Design	3-0-0-0		3		
	UBET26EC0556	Estimation and Detection	3-0-0-0		3		
	UBET26EC0557	ARM architecture, programming and Interfacing	3-0-0-0		5/3		

SEMESTER 6

Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26EC0601	PC	Advanced Communication Theory	3	1	0	0	5	40	60	4	4
2	B	UBET26EC0602	PC	Microwaves and Antennas	3	0	0	0	4.5	40	60	3	3
3	C	Programme Elective3	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	UBET26EC0631	PC-PBL	VLSI Circuit Design	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0612	IC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OpenElective1 /UBKN26XT0691	OE/ILE	OE/ILE-1	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26EC0603	PC	Communication Lab II	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26EC0604	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3

9	R/M/H			Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
Total										32/36		23/26	25/28

Industrial Training:

Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26EC0651	Computer Networks	3-0-0-0	3	3
	UBET26EC0652	Digital Image Processing	3-0-0-0		3
	UBET26EC0653	Secure Communication	3-0-0-0		3
	UBET26EC0654	Nano-Electronics	3-0-0-0		3
	UBET26EC0655	Optical Communication	3-0-0-0		3
	UBET26EC0656	Optimization Techniques	3-0-0-0		3
	UBET26CS0657	Image Processing Applications	3-0-0-0		5/3
OPEN ELECTIVE 1					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26CS0681	Entertainment Electronics	3-0-0-0	3	3
	UBET26CS0682	Computer Networks	3-0-0-0		3
	UBET26CS0683	Biomedical Engineering	3-0-0-0		3

SEMESTER 7

Sl. No:	Slot	Course Code	cc	Course Title (Course Name)	Credit Structure					Total Marks		Credits	Hrs/ Week
					L	T	P	R	SS	CIA	ESE		
1	A	PE-4	PE	Programme Elective 4 (List follows)	3	0	0	0	4.5	40	60	3	3
2	B	PE-5	PE	Programme Elective 5 (List follows)	3	0	0	0	4.5	40	60	3	3
3	O	OE-2	OE	Open Elective 2 (List follows)	3	0	0	0	4.5	40	60	3	3
4	I*	HUM	IE	Humanities Elective (List follows)	2	0	0	0	3	50	50	2	2
5	S	UBES26EC0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	UBEP26EC0701/ UBEP26EC7801/ UBKN26XT7891	PC	Major Project-Phase1/ Major Project/Internship (4-6Months) [‡]	0	0	0	8	8	50/ 100/ 50	0	4	8
7	R/H			Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total										26/31		17/20	22/25

Internship Students: Self Study/MOOC Approved by the University/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (can do internship in S8). Option 2: Work on the first phase of a Major Project in the institute/department under the mentorship of faculty members (student has to complete the second phase of the Major Project in S8; no internship in S8). Option 3: Full semester Internship in an Industry/organization in S7 (Student has to undertake the Main Project in S8).

PROGRAM ELECTIVE 4					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	UBET26EC0751	Advanced Mobile Communication	3-0-0-0		3
	UBET26EC0752	Deep Learning	3-0-0-0		3
	UBET26EC0753	Robotics and Automation	3-0-0-0		3

A	UBET26EC0754	Coding Theory	3-0-0-0	3	3
	UBET26EC0755	Advanced DSP	3-0-0-0		3
	UBET26EC0756	Cryptography	3-0-0-0		3
	UBET26EC0757	Deep Learning Techniques	3-0-0-0		5/3
PROGRAM ELECTIVE 5					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBCT26EC0761	Satellite and Radar Communication	3-0-0-0	3	3
	UBCT26EC0762	Internet of Things	3-0-0-0		3
	UBCT26EC0763	Real Time Operating System	3-0-0-0		3
	UBCT26EC0764	Mixed Signal Circuits	3-0-0-0		3
	UBCT26EC0765	Speech and Audio Processing	3-0-0-0		3
	UBCT26EC0766	Microwave Devices and Circuits	3-0-0-0		3
	UBCT26EC0767	Mixed Signal Circuit Design	3-0-0-0		5/3
OPEN ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EC0781	Optical Communication	3-0-0-0	3	3
	UBET26EC0782	Digital ImageProcessing	3-0-0-0		3
	UBET26EC0783	OptimizationTechniques	3-0-0-0		3
HUMANITIES ELECTIVE					
Slot	Course Code	Course Name	L-T-P-R	Hours	Credits
I	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control	2-0-0-0	2	2
	UBLT26XT0771	Proficiency course in French(MOOC) (B1 level)	2-0-0-0		2
	UBLT26XT0772	Proficiency Course in German(B1Level) (MOOC)	2-0-0-0		2
	UBLT26XT0773	Proficiency Course in Spanish(B1Level) (MOOC)	2-0-0-0		2
	UBLT26XT0774	Introduction to Japanese Language and Culture (N5 level) (MOOC)	2-0-0-0		2

SEMESTER 8

Sl. No:	Slot	Course Code	Co urse Cate gory	Cours e Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	ProgrammeElective6(Listfollows)	3	0	0	0	4.5	40	60	3	3
2	O	OE-3	OE	OpenElective3	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P	UBEP26EC0801/ UBEP26EC7801/ UBKN26XT7891	PC	MajorProject-Phase-II/ Major Project/ Internship (4-6) months	0	0	0	8	8	50/ 100/ 50	0	4	8
Total									20			11	16

PROGRAM ELECTIVE 6

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26EC0851	Wireless Sensor Networks	3-0-0-0	3	3
	UBET26EC0852	RF Engineering	3-0-0-0		3
	UBET26EC0853	Renewable Energy Systems	3-0-0-0		3
	UBET26EC0854	Cyber-Security	3-0-0-0		3
	UBET26EC0855	Low Power VLSI	3-0-0-0		3

	UBET26EC0856	Blockchain	3-0-0-0		3
	UBET26EC0857	Antenna Theory & Wave Propagation	3-0-0-0		3
	UBST26EC0858	Antenna Theory & Design	3-0-0-0		5/3

OPEN ELECTIVE 3

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26EC0881	Internet of Things	3-0-0-0	3	3
	UBET26EC0882	Satellite and Radar Communication	3-0-0-0		3
	UBET26EC0883	Robotics	3-0-0-0		3

HMC Courses

Sl. No:	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India. (MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9

BSC Courses

Sl. No:	Semester	Course Area	Credits
1	S1	Mathematics for Electrical Science -1	3
2	S1/S2	Physics for Electrical Science	4
3		Chemistry for Electrical Science	4
4	S2	Mathematics for Electrical Science -2	3
5	S3	Mathematics for Electrical Science -3	3
6	S4	Mathematics for Electrical Science -4	3
Total Credits			20

ESC Courses (Group B)

Sl. No:	Semester	Course Area	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	S2	Foundations of Computing: From Hardware Essentials to Web Design/ Engineering Mechanics (EEE, CP, RA and RU)	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
Total Credits			29

Program Core Courses (PC)

Sl. No:	Semester	Course Area	Credits
1	S2	Network Theory	4
2	S3	Solid State Devices	4
3		Analog Circuits	4
4		Analog Circuits Lab	2
5		Logic Circuit Design Lab	2
6	S4	Signals and Systems	4
7		Linear Integrated Circuits	4
8		Linear Integrated Circuits Lab	2
9		Microcontroller Lab	2

10	S5	Electromagnetics	4
11		Analog & Digital Communication	4
12		Control Systems	3
13		DSP Lab	2
14		Communication Lab I	2
15	S6	Advanced Communication Theory	4
16		Microwave and Antennas	3
17		Communication Lab II	2
Total Credits (Theory-10, Lab-7)			52
Program Core- Project Based Learning (PBL)			
Sl. No:	Semester	Course Area	Credits
1	S3	Logic Circuit Design	4
2	S4	Microcontrollers	4
3	S5	Digital Signal Processing	4
4	S6	VLSI Circuit Design	4
Total Credits			16
Program Elective Courses(PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18
Open Elective Courses/Industry Elective (OE/IEL)			
Sl.No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
Total Credits			9
Project/Internship and Seminar			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini Project	2
2	S7	Seminar	2
3		Major Project/Internship	4
4	S8	Major Project/Internship/Research Project	4
Total Credits			12

Activity Points				
Sl. No.	Group	Courses	Credits	MinimumCredit Requirements
1	I	NSS,NCC,NSO(National Sports Organization)	1 (40Points)	3 Credits (Onecreditfromeach Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL,IELTS,BECetc.)	1 (40Points)	
5		Aptitude ProficiencyCertification(GRE,CAT,GMATetc.)/Valid Gate Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/ Workshop Activities/ Professional Body Activities, Participation in University level/State Level/ National Level Hackathons		
7	III	JournalPublication,Patents,Start-Up,Innovation,Winnersof National/ International Level Hackathons	1 (40Points)	
8		SkillingCertificates (ApprovedbytheUniversity)		

- Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.
- For B.Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.

Course classification of the B. Tech Programmes and Overall Credit Structure			
Sl. No	Category	Code	Credits
1	Humanities and Social Sciences including Management Courses	HMC	9
2	Basic Science Courses	BSC	20
3	Engineering Science Courses	ESC	29
4	Programme (Professional) Core Courses	PCC	52
5	Programme (Professional) Core Courses-Project Based Learning	PBL	16
6	Programme Elective Courses	PEC	18
7	Open Elective Courses/Industry Linked Elective	OEC/ILE	9
8	Mini Project, Project Work/Internship and Seminar	PWS	12
9	Health and Wellness	HWP	1
10	Skill Enhancement Courses (Digital 101)	SEC	1
11	Mandatory Student Activities	MSA	3
Total Credits			170

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B.Tech Curriculum - 2026 Semester I to VIII

Electronics and Computer Engineering Branch Code : ES

SEMESTER 1

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and Physical Science -1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1211	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211	GC	Chemistry for Information Science and Electrical Science									
3	C	UBET26ME0111	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0111	GC	Introduction to Electrical &Electronics Engineering (Part1:ElectricalEngineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part2:ElectronicsEngineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0111	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50*	1	2
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221	IC	Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30/ 32			20	25/26

SEMESTER 2

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1212	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1211		Chemistry for Information Science and Electrical Science									
3	C	UBET26CS0211	GC	Foundations of Computing: From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	UBCT26CS0212	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	E	UBET26ES0201	PC	DIGITAL ELECTRONICS	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I** S1/ S2	UBYT26PE1221	IC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1221		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26CS0212	GC	IT Workshop	0	0	2	0	1	50	50*	1	2
Total									34			23	27/28

* Internal evaluation by college

- L-T-P-R:Lecture-Tutorial-Practical-Project
- SS(Self Study)Hours=1.5L+0.5T+0.5P+R
- CIA: Continuous Internal Assessment, ESE: End Semester Examination

Note: Physics, Chemistry, Health and Wellness & Life Skill and Professional Communication can be offered in both Semester1 (S1) and Semester 2 (S2). Approximately 50% of their branches to choose between Physics or Chemistry (Slot B) and Health and Wellness or Life Skill and Professional Communication (Slot I) in Semester 1.

SEMESTER 3

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure					SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R	CIA		ESE			
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical Science -3	3	0	0	0	4.5	40	60	3	3	
2	B	UBET26ES0301	PC	Data Structures	3	1	0	0	5	40	60	4	4	
3	C	UBET26ES0302	PC	Digital System Design Using Verilog	3	1	0	0	5	40	60	4	4	
4	D	UBET26ES0331	PB	Electronic Devices and Circuits	3	0	0	1	5.5	60	40	4	4	
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0		5	40	60	4	4	
6	G S3/ S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2	
		UBHT26HU3422		Engineering Ethics and Sustainable Development										
7	L	UBEL26ES0303	PC	Data Structures Lab	0	0	3	0	1.5	50	50	2	3	
8	Q	UBEL26ES0304	PC	Digital System Design Lab	0	0	3	0	1.5	50	50	2	3	
9	R/M			Remedial/Minor Course	3	1	0	0	5			4*	4*	
Total									31/ 36			25/ 29*	27 /31*	

SEMESTER 4

Sl. No.	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0412	GC	Probability , Statistics and Random Process	3	0	0	0	4.5	40	60	3	3
2	B	UBET26ES0401	PC	Computer Organization and Architecture	3	1	0	0	5	40	60	4	4
3	C	UBET26ES0402	PC	Computer Networks	3	1	0	0	5	40	60	4	4
4	D	UBET26ES0431	PC-PBL	Integrated Circuits	3	0	0	1	5.5	60	40	4	4
5	E	PE - 1	PE	Program Elective 1	3	0	0	0	4.5	40	60	3	3
6	GS3 /S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26 HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26ES0403	PC	Computer Networking Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26ES0404	PC	Integrated Circuits Lab	0	0	3	0	1.5	50	50	2	3
9	R/M /H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/ 36			24/ 28*	26 /30*

*Valuation for HMC courses will be done at college level, Question papers will be provided by the University

Note: Economics for Engineers and Engineering Ethics and Sustainable Development shall be offered in both S3 and S4. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Economics for Engineers in S3 and Engineering Ethics & Sustainable Development in S4 and vice versa.

PROGRAMELECTIVE1

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26ES0451	Communication Engineering	3-0-0-0	3	3
	UBET26ES0452	Basic VLSI Design	3-0-0-0		3
	UBET26ES0453	Biomedical Signals and Transducers	3-0-0-0		3
	UBET26ES0454	Foundations of Machine Learning	3-0-0-0		3
	UBET26ES0455	Object Oriented Programming Using Java	3-0-0-0		3

	UBET26ES0456	Java Programming & Application development	3-0-0-0		5/3
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Note: Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 creditorship Program Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2024 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course

.SEMESTER 5

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26ES0501	PC	Digital Signal Processing	3	1	0	0	5	40	60	4	4
2	B	UBET26ES0502	PC	Theory of Computation	3	1	0	0	5	40	60	4	4
3	C	UBET26ES0503	PC	Microcontrollers and Interfacing	3	0	0	0	4.5	40	60	3	3
4	D	UBET26ES0531	PC-PBL	Database Management Systems	3	0	0	1	5.5	60	40	4	4
5	E	PE -2	PE	Program Elective2	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution Of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26ES0504	PC	DSP Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBCL26ES0505	PC	Database Management Systems Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									30/35			23/27	24/28

**No Grade Points will be awarded for the MOOC course and I slot course*

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26ES0551	Wireless Sensor Networks	3-0-0-0	3	3
	UBET26ES0552	CMOS VLSI Design	3-0-0-0		3
	UBET26ES0553	Sensors and Actuators	3-0-0-0		3
	UBET26ES0554	Cloud Computing	3-0-0-0		3
	UBET26ES0555	Python Basics for Machine Learning	3-0-0-0		3
	UBET26ES0556	Computational Fundamentals for Machine Learning	3-0-0-0		5/3

SEMESTER 6

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26ES0601	PC	Operating Systems	3	1	0	0	5	40	60	4	4
2	B	UBET26ES0602	PC	Data Communication and Networking	3	0	0	0	4.5	40	60	3	3
3	C	PE3	PE	Program Elective -3	3	0	0	0	4.5	40	60	3	3
4	D	UBET26ES0631	PC-PBL	Embedded Systems and IoT	3	0	0	1	5.5	60	40	4	4
5	E	UBET26MD0612	IC	Design Thinking and Product Development(Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OE-1	OE	Open Elective -1	3	0	0	0	4.5	40	60	3	3
7	L	UBEL26ES0603	PC	Embedded Systems and IoT Lab	0	0	3	0	1.5	50	50	2	3
8	P	UBEP26ES0604	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3

9	R/ M/ H			Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
Total									32/ 36			23/ 26*	25/ 28*

PROGRAM ELECTIVE 3					
SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDI T
C	UBET26ES0651	Network and Linear Control Systems	3-0-0-0	3	3
	UBET26ES0652	Micro-Electro-Mechanical-Systems	3-0-0-0		3
	UBET26ES0653	Foundations of Data Science	3-0-0-0		3
	UBET26ES0654	Compiler Design	3-0-0-0		3
	UBET26ES0655	Algorithm Analysis and Design	3-0-0-0		3
	UBET26ES0656	Design & Analysis of Algorithms	3-0-0-0		5/3
OPEN ELECTIVE 1					
SLOT	COURSECODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ES0681	Basics of Analog and Digital Communication	3-0-0-0	3	3
	UBET26ES0682	Robotics and Automation	3-0-0-0		3
	UBET26ES0683	Object Oriented Concepts	3-0-0-0		3
	UBET26ES0684	Internet of Things	3-0-0-0		3
	UBET26ES0685	Introduction to Artificial Intelligence	3-0-0-0		3

SEMESTER 7

Sl. No:	Slot	Course Code	Course Category	Course Name	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-4	PE	Program Elective-4(List follows)	3	0	0	0	4.5	40	60	3	3
2	B	PE-5	PE	Program Elective-5 (List follows)	3	0	0	0	4.5	40	60	3	3
3	O	OE-2	OE	OpenElective2 (List follows)	3	0	0	0	4.5	40	60	3	3
4	I*	HUM	IE	Humanities Elective	2	0	0	0	3	50	50	2	2
5	S	UBES26ES0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	UBEP26ES0701/ UBEP26ES7801/ UBKN26XT7891	PC	Major Project -Phase 1/ Major Project/ Internship (4-6 Months) ‡	0	0	0	8	8	50/ 100/ 50	0	4	8
7	R/H			Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total									26/ 31			17/ 20*	22/ 25*

‡(Internship Students: Self Study / MOOC Approved by the University / Online Classes)

*No Grade Points will be awarded for the I slot courses.

Valuation for HMC courses will be done at college level, Question papers will be provided by the University.

**Students can opt for the internship either in the 7th or 8th semester.

Option 1: Work on a Project in the institute/department under the mentorship of faculty members.

Option 2: Full semester Internship in an Industry / organization (7th or 8th semester)

Note: Open Electives are such courses which will be offered by other departments.

PROGRAM ELECTIVE 4					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26ES0751	Image Processing	3-0-0-0	3	3
	UBET26ES0752	Deep Learning	3-0-0-0		3
	UBET26ES0753	Robotics and Automation	3-0-0-0		3
	UBET26ES0754	Nano electronics	3-0-0-0		3
	UBET26ES0755	Block Chain Technologies	3-0-0-0		3
	UBET26ES0756	Network Security	3-0-0-0		5/3

PROGRAM ELECTIVE 5					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26ES0761	Web Programming	3-0-0-0	3	3
	UBET26ES0762	Low Power VLSI Design	3-0-0-0		3
	UBET26ES0763	Real Time Operating Systems	3-0-0-0		3
	UBET26ES0764	Client Server Architecture	3-0-0-0		3
	UBET26ES0765	Speech and Audio Processing	3-0-0-0		3
	UBET26ES0766	Neural Networks & Deep Learning	3-0-0-0		3

OPEN ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ES0781	Sensors and Instrumentation	3-0-0-0	3	3
	UBET26ES0782	Biomedical Instrumentation	3-0-0-0		3
	UBET26ES0783	Embedded System Design and Applications	3-0-0-0		3
	UBET26ES0784	Digital Image Processing	3-0-0-0		3
	UBET26ES0785	Concepts in Machine Learning	3-0-0-0		3

HMC Elective	
COURSE CODE	COURSES
UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control
UBLT26HT0772	Proficiency course in French.(MOOC) (B1level)
UBLT26HT0773	Proficiency Course in German(B1Level).(MOOC)
UBLT26HT0774	Proficiency Course in Spanish(B1Level)(MOOC)
UBLT26HT0775	Introduction to Japanese Language and Culture(N5level).(MOOC)

SEMESTER 8

Sl. No.	Slot	Course Code	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
				L	T	P	R		CIA	ESE		
		ProgrammeElecti										

1	A	ve6	PE6	3	0	0	0	4.5	40	60	3	3
2	O	Open Elective 3	OE -3	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2
4	P**	UBEP26ES0801/ UBEP26ES7801/ UBKN26XT7891	Major Project Phase -II (For the students who have not opted for internship S7/S8)/ Major Project/ Internship(4-6) months	0	0	0	8	8	50/ 100/ 50	0	4	8
Total								20			11	16

¥(Internship Students: Self Study/MOOC Approved by the University/Online Classes)

*No Grade Points will be awarded for the I slot courses

Valuation for HMC courses will be done at college level, Question papers will be provided by the University.

**Option 2: Full semester Internship in an Industry/organization (7th or 8th semester)

PROGRAM ELECTIVE 6					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26ES0851	PLC and Data Acquisition Systems	3-0-0-0	3	3
	UBET26 ES 0852	Electronic Product Design	3-0-0-0		3
	UBET26 ES 0853	System Software	3-0-0-0		3
	UBET26 ES 0854	Cyber Security	3-0-0-0		3
	UBET26 ES0855	Cryptography and Network Security	3-0-0-0		3
	UBET26 ES0856	Cyber Forensics	3-0-0-0		5/3
OPEN ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ES0881	Biomedical Signal Processing	3-0-0-0	3	3
	UBET26ES0882	Hybrid and Electric Vehicles	3-0-0-0		3
	UBET26ES0883	Fundamentals of Computer Networks	3-0-0-0		3
	UBET26ES0884	Cloud Computing and Applications	3-0-0-0		3
	UBET26ES0885	Introduction to Deep Learning	3-0-0-0		3

HMC Courses			
Sl.No:	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3/S4	Economics for Engineers	2
3		Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India.(MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9
BSC Courses			
Sl.No:	Semester	Course Area	Credits
1	S1	Mathematics for Electrical Science and Information Science-1	3
2	S1/S2	Physics for Electrical Science	4
3		Chemistry for Information Science and Electrical Science	4

4	S2	Mathematics for Electrical Science and Information Science -2	3
5	S3	Mathematics for Electrical Science and Information Science -3	3
6	S4	Mathematics for Electrical Science and Information Science -4	3
Total Credits			20
ESC Courses (Group B)			
Sl.No:	Semester	Course Area	Credits
1	S1	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	S2	Foundations of Computing: From Hardware Essentials to Web Design	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Creativity	2
Total Credits			29

Program Core Courses (PC)			
Sl.No:	Semester	Course Area	Credits
1	S2	Digital Electronics	4
2	S3	Data Structures	4
3		Digital System Design Using Verilog	4
4		Data Structures Lab	2
5		Digital System Design Lab	2
6	S4	Computer Organization and Architecture	4
7		Computer Networks	4
8		Computer Networking Lab	2
9		Integrated Circuits Lab	2
10	S5	Digital Signal Processing	4
11		Theory of Computation	4
12		Microcontrollers and Interfacing	3
13		Digital Signal Processing Lab	2
14		Database Management Systems Lab	2
15	S6	Operating Systems	4
16		Data Communication and Networking	3
17		Embedded Systems and IoT Lab	2
Total Credits(Theory-10, Lab-7)			52
Program Core-Project Based Learning(PBL)			
Sl. No:	Semester	Course Area	Credits
1	S3	Electronic Devices & Circuits	4
2	S4	Integrated Circuits	4
3	S5	Database Management Systems	4
4	S6	Embedded Systems & IoT	4
Total Credits			16

Program Elective Courses(PE)			
Sl.No:	Semester	Course Type	Credits

1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18

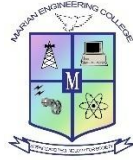
Open Elective Courses/Industry Elective(OE/IEL)			
Sl.No:	Semester	Course Type	Credits
1	S6	OE/ILE-1	3
2	S7	OE/ILE-2	3
3	S8	OE/ILE-3	3
Total Credits			9

Project/Internship and Seminar			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini project	2
2	S7	Seminar	2
3		Major Project/Internship	4
4	S8	Major Project/Internship/Research Project	4
Total Credits			12

Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS,NCC,NSO(National Sports Organization)	1 (40 Points)	3 Credits (One credit from Each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification(TOFEL,IELTS,BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification(GRE, CAT, GMAT etc.)/Valid GATE Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/Workshop Activities/Professional Body Activities, Participation in University level/State Level/National Level Hackathons		
7	III	Journal Publication ,Patents, Start-Up, Innovation, Winners of National/International Level Hackathons	1 (40 Points)	
8		Skilling Certificates(Approved by the University)		

- Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.
- For B.Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



B. Tech Curriculum-2026 Semester I to VIII

Programme:
Mechanical Engineering
Branch Code: ME
(Group C)

FIRST SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0112	GC	Mathematics for Electrical Science and Physical Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1213	GC	Physics for Physical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1212		Chemistry for Physical Science									
3	C	UBET26CE0111	GC	Engineering Mechanics	3	0	0	0	4.5	40	60	3	3
4	D	UBET26JD0112	GC	Introduction to Mechanical Engineering & Civil Engineering (Part1: Mechanical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part 2: Civil Engineering)	2	0	0	0	3	20	30		
5	E	UBCT26CS0121	IC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	UBEW26JD0112	GC	Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I* S1 / S2	UBYT26PE1221	IC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1211		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
Total									30/ 32			20	24/ 25

10 Days Compulsory Induction Program and UHV | Bridge Course (Mathematics or Introduction to Computer Science) : 15 Hrs.

L-T-P-R: Lecture-Tutorial-Practical-Project | SS (Self Study) Hours=1.5L+0.5T+0.5P+R

CIA: Continuous Internal Assessment | ESE: End Semester Examination

**No Grade Points will be awarded for the I slot course

SECOND SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0212	GC	Mathematics for Electrical Science and Physical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	UBST26PH1213	GC	Physics for Physical Science	3	0	2	0	5.5	40	60	4	5
		UBST26CY1212		Chemistry for Physical Science									
3	C	UBET26ME0211	GC	Engineering Graphics and Computer Aided Drawing	2	0	2	0	4	40	60	3	4
4	D	UBET26JD0211	GC	Basic Electrical & Electronics Engineering (Part 1: Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
				(Part 2: Electronics Engineering)	2	0	0	0	3	20	30		
5	E	UBET26ME0201	PC	Material Science and Engineering	3	1	0	0	5	40	60	4	4
6	F	UBET26IN0221	IC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
7	I* S1/ S2	UBYT26PE1221	IC	Health and wellness	1	0	1	0	0	50	0	1	2/3
		UBHT26HU1211		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	L	UBEW26JD0211	GC	Basic Electrical and Electronics Engineering workshop	0	0	2	0	1	50	50	1	2
Total									34			23	27/ 28

*No Grade Points will be awarded for the MOOC course and I slot course.

THIRD SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0312	GC	Mathematics for Electrical Science and Physical Science-3	3	0	0	0	4.5	40	60	3	3
2	B	UBET26ME0301	PC	Mechanics of Solids	3	1	0	0	5	40	60	4	4
3	C	UBET26ME0302	PC	Fluid Mechanics and Machinery	3	1	0	0	5	40	60	4	4
4	D	UBET26ME0331	PC-PBL	Manufacturing Processes	3	0	0	1	5.5	60	40	4	4
5	E	UBET26AH0311	GC	Introduction to Artificial Intelligence and Data Science	3	1	0	0	5	40	60	4	4
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26ME0303	PC	Computer Aided Machine Drawing & Modelling	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26ME0304	PC	Materials Testing lab	0	0	3	0	1.5	50	50	2	3
9	R/M			REMEDIAL/MINOR/COURSE	3	1	0	0	5			4*	4*
Total									31/36			25/29*	27/31*

Bridge Course for Lateral Entry Students: 15 Hrs.

FOURTH SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBST26MA0413	GC	Probability Statistics and Numerical Methods	3	0	0	0	4.5	40	60	3	3
2	B	UBET26ME0401	PC	Machine Tools and Metrology	3	1	0	0	5	40	60	4	4
3	C	UBET26ME0402	PC	Engineering Thermodynamics	3	1	0	0	5	40	60	4	4
4	D	UBET26ME0431	PC-PBL	Mechanics of Machinery	3	0	0	1	5.5	60	40	4	4
5	E	PE-1	PE	Programme Elective-1 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UBHT26HU3421	IC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UBHT26HU3422		Engineering Ethics and Sustainable Development									
7	L	UBEL26ME0403	PC	Fluid Mechanics and Hydraulic Machines Lab	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26ME0404	PC	Manufacturing Technology Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total									31/36			24/28*	26/30*

PROGRAM ELECTIVE I					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	UBET26ME0452	Nuclear Energy	3-0-0-0		3
	UBET26ME0453	Composite Materials	3-0-0-0		3
	UBET26ME0454	Components of Intelligent Systems	3-0-0-0		3

	UBET26ME0455	Advanced Metal Joining Techniques	3-0-0-0		3
	UBET26ME0456	Technology Management	3-0-0-0		3
	UBET26ME0457	Supply Chain and Logistics Management	3-0-0-0		3
	UBET26ME0458	Advanced Mechanics of Solids	3-0-0-0		5/3

Note : Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. - 2026 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

FIFTH SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26ME0501	PC	Dynamics of Machinery	3	1	0	0	5	40	60	4	4
2	B	UBET26ME0502	PC	Advanced Manufacturing Engineering	3	1	0	0	5	40	60	4	4
3	C	UBET26ME0503	PC	Heat and Mass Transfer	3	0	0	0	4.5	40	60	3	3
4	D	UBET26ME0531	PC-PBL	Management for Engineers	3	0	0	1	5.5	60	40	4	4
5	E	PE-2	PE	Programme Elective-2 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
6	I*	UBHT26XT0521	IC	Constitution of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	UBEL26ME0504	PC	Thermal Engineering Lab-1	0	0	3	0	1.5	50	50	2	3
8	Q	UBEL26ME0505	PC	Mechanical Engineering Lab	0	0	3	0	1.5	50	50	2	3
9	R/M/H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
Total					30/35					23/27*		23/27*	

**No Grade Points will be awarded for the MOOC course and I slot course*

Industrial Visit: In S5 or S6: 12 days are permitted including a maximum of 6 working Days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period

PROGRAM ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	UBET26ME0551	Computational Fluid Dynamics	3-0-0-0	3	3
	UBET26ME0552	Design for Manufacture and Assembly	3-0-0-0		3
	UBET26ME0553	Computer Aided Design and Analysis	3-0-0-0		3
	UBET26ME0554	Additive Manufacturing	3-0-0-0		3
	UBET26ME0555	Energy Economics and Policy	3-0-0-0		3
	UBET26ME0556	Human Resources Management	3-0-0-0		3
	UBET26ME0557	Operations Research	3-0-0-0		3
	UBET26ME0558	Instrumentation and Control Systems	3-0-0-0		5/3

SIXTH SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./ Week
					L	T	P	R		CIA	ESE		
1	A	UBET26ME0601	PC	Industrial and Systems Engineering	3	0	0	0	4.5	40	60	3	3
2	B	UBET26ME0602	PC	Machine Design	3	0	0	0	4.5	40	60	3	3
3	C	PE -3	PE	Programme Elective-3 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
4	D	UBET26ME0631	PC-PBL	Thermal Engineering	3	0	0	1	5.5	60	40	4	4

5	E	UBET26MD0611	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2	
6	O	OE-1	OE	Open Elective-1 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3	
7	L	UBEL26ME0603	PC	Computer Aided Design and Analysis Lab	0	0	3	0	1.5	50	50	2	3	
8	P	UBEP26ME0605	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3	
9	Q	UBEL26ME0604	PC	Thermal engineering Lab-2	0	0	2	0	1	50	50	1	2	
10	R/ M/ H			Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*	
	S5/ S6	Industrial Visit (Maximum of 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
Total										32/ 37			23/27*	26/30*

Industrial Visit: In S5 or S6.12 days are permitted including a maximum of 6 working Days

Industrial Training: Students who are not participating in the industrial visit must attend industrial training during that period

PROGRAM ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
C	UBET26ME0651	Power Plant Engineering	3-0-0-0	3	3
	UBET26ME0652	Compressible Fluid Flow	3-0-0-0		3
	UBET26ME0653	Industrial Tribology	3-0-0-0		3
	UBET26ME0654	Finite Element Methods	3-0-0-0		3
	UBET26ME0655	Nondestructive Testing	3-0-0-0		3
	UBET26ME0656	Industrial Safety Engineering	3-0-0-0		3
	UBET26ME0657	Marketing Management	3-0-0-0		3
	UBET26ME0658	Advanced Materials	3-0-0-0		5/3

OPEN ELECTIVE 1					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ME0681	Introduction to Business Analytics	3-0-0-0	3	3
	UBET26ME0682	Quantitative Techniques for Engineers	3-0-0-0		3
	UBET26ME0683	Automotive Technology	3-0-0-0		3
	UBET26ME0684	Renewable Energy Engineering	3-0-0-0		3
	UBET26ME0685	Quality Engineering and Management	3-0-0-0		3
	UBET26ME0686	Additive Manufacturing	3-0-0-0		3
	UBET26ME0687	Solar Energy Conservation Systems	3-0-0-0		3

SEVENTH SEMESTER													
Sl. No:	Slot	Course Code	Course Category	CourseTitle (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-4	PE	Programme Elective-4 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
2	B	PE-5	PE	Programme Elective-5 (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
3	O	OE -2	OE	Open Elective (<i>List follows</i>)	3	0	0	0	4.5	40	60	3	3
4	I*	HUM	IE	Institute Elective (<i>List follows</i>)	2	0	0	0	3	50	50	2	2
5	S	UBES26ME0701	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P	UBEP26ME0701 UBEP26ME7801 UBKN26XT7891	PC	Major Project Phase I Major Project Internship (4-6 Months)	0	0	0	12	12	50/ 100/ 50	0	4	8
7	R/H			Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total									26/ 31			17/20*	22/25*

‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (can do internship is S8). Option 2: Work on the first phase of a

Major Project in the institute/department under the mentorship of faculty members (student has to complete the second phase of the Major Project in S8; no internship in S8). Option 3: Full semester Internship in an Industry/organization in S7 (Student has to undertake the Main Project in S8).

PROGRAM ELECTIVE 4					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26ME0751	Gas Turbine and Jet Propulsion	3-0-0-0	3	3
	UBET26ME0752	Automobile Engineering	3-0-0-0		3
	UBET26ME0753	Design of Machine Elements	3-0-0-0		3
	UBET26ME0754	Failure Analysis and Design	3-0-0-0		3
	UBET26ME0755	Lean Manufacturing	3-0-0-0		3
	UBET26ME0756	Reliability Engineering	3-0-0-0		3
	UBET26ME0757	Robotics	3-0-0-0		3
	UBET26ME0758	Mechatronics	3-0-0-0		5/3

PROGRAM ELECTIVE 5					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	UBET26ME0761	Refrigeration and Air Conditioning	3-0-0-0	3	3
	UBET26ME0762	Acoustics and noise Control	3-0-0-0		3
	UBET26ME0763	Aerospace Engineering	3-0-0-0		3
	UBET26ME0764	Renewable Energy Engineering	3-0-0-0		3
	UBET26ME0765	Mobile Robotics	3-0-0-0		3
	UBET26ME0766	Flexible Manufacturing Systems	3-0-0-0		3
	UBET26ME0767	Quality Engineering and Management	3-0-0-0		3
	UBET26ME0768	Optimization Techniques	3-0-0-0		5/3

OPEN ELECTIVE 2					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ME0781	Engineering Materials	3-0-0-0	3	3
	UBET26ME0782	Robotics	3-0-0-0		3
	UBET26ME0783	Finite Element Methods	3-0-0-0		3
	UBET26ME0784	Nondestructive Testing	3-0-0-0		3
	UBET26ME0785	Engineering Instruments and Measurements	3-0-0-0		3
	UBET26ME0786	Computational Heat Transfer	3-0-0-0		3
	UBET26ME0787	Power Plant Engineering	3-0-0-0		3

SL. No	Course Code	Slot I: HMC Elective
1	UBMT26HU0771	Project Management: Planning, Execution, Evaluation and Control
2	UBLT26XT0771	Proficiency course in French. (MOOC) (B1 level)
3	UBLT26XT0772	Proficiency Course in German (B1 Level). (MOOC)
4	UBLT26XT0773	Proficiency Course in Spanish (B1 Level) (MOOC)
5	UBLT26XT0774	Introduction to Japanese Language and Culture (N5 level). (MOOC)

EIGHTH SEMESTER													
Sl. No:	Slot	Course Code	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs/ Week
					L	T	P	R		CIA	ESE		
1	A	PE-6	PE	Programme Elective-6 <i>(List follows)</i>	3	0	0	0	4.5	40	60	3	3
2	O	OE -3	OE	Open Elective - 3 <i>(List follows)</i>	3	0	0	0	4.5	40	60	3	3
3	I*	UBHT26HU0821	IC	Organizational Behavior and Business Communication	2	0	0	0	3	50	50	1	2

4	P	UBEP26ME0801 UBEP26ME7801 UBKN26XT7891	PC	Major Project Phase -II Major Project Internship (4-6 Months)	0	0	0	12	12	50 /100 /50	0	4	8
Total										24/ 28		11/15*	16/20

‡ Internship Students: Self Study/MOOC Approved by the Institute/Online Classes

*No Grade Points will be awarded for the I slot courses

**Students can opt for the internship either in the 7th or 8th semester: Option 1: Work on the Main Project in the institute/department under the mentorship of faculty members (can do internship in S7). Option 2: Work on the second phase of a Major Project in the institute/department under the mentorship of faculty members (student has to complete the first phase of the Major Project in S7; no internship in S7). Option 3: Full semester Internship in an Industry/organization in S8 (Student has to undertake the Main Project in S7).

PROGRAM ELECTIVE 6					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	UBET26ME0851	Cryogenic Engineering	3-0-0-0	3	3
	UBET26ME0852	Pressure Vessel and Piping Design	3-0-0-0		3
	UBET26ME0853	Hybrid and Electric Vehicles	3-0-0-0		3
	UBET26ME0854	Micro and Nano Manufacturing	3-0-0-0		3
	UBET26ME0855	Advanced Numerical Control in Manufacturing	3-0-0-0		3
	UBET26ME0856	Metal Additive Manufacturing	3-0-0-0		3
	UBET26ME0857	Nanotechnology	3-0-0-0		3
	UBET26ME0858	Aircraft Design	3-0-0-0		5/3

OPEN ELECTIVE 3					
SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	UBET26ME0881	Industrial Hydraulics and Automation	3-0-0-0	3	3
	UBET26ME0882	3D Printing and Tooling	3-0-0-0		3
	UBET26ME0883	Numerical Techniques Engineering	3-0-0-0		3
	UBET26ME0884	Business Organization and Development	3-0-0-0		3
	UBET26ME0885	World Class Manufacturing	3-0-0-0		3
	UBET26ME0886	Micro Electro Mechanical Systems	3-0-0-0		3
	UBET26ME0887	Product Design and Innovation	3-0-0-0		3

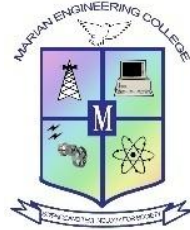
HMC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1/S2	Life Skills and Professional Communication	1
2	S3	Economics for Engineers	2
3	S4	Engineering Ethics and Sustainable Development	2
4	S5	Constitution Of India. (MOOC)	1
5	S7	Elective (Project Management/Foreign Languages)	2
6	S8	Organizational Behavior and Business Communication	1
Total Credits			9
BSC Courses			
Sl. No:	Semester	Course Area	Credits
1	S1	Mathematics for Physical Science-1	3
2	S1/S2	Physics for Physical Science	4
3		Chemistry for Physical Science	4
4	S2	Mathematics for Physical Science-2	3
5	S3	Mathematics for Physical Science-3	3
6	S4	Mathematics for Physical Science-4	3
Total Credits			20

ESC Courses (Group C)			
Sl. No:	Semester	Course Area	Credits
1	S1	Engineering Mechanics	3
2		Introduction to Mechanical Engineering/ Civil Engineering	4
3		Algorithmic Thinking with Python	4
4		Engineering Workshop	1
5	S2	Engineering Graphics and Computer Aided Drawing	3
6		Basic Electrical and Electronics Engineering	4
7		Engineering Entrepreneurship and IPR	3
8		Basic Electrical and Electronics Engineering Workshop	1
9	S3	Introduction to Artificial Intelligence and Data Science	4
10	S6	Design Thinking and Product Development	2
Total Credits			29
Programme Core Courses (PC) (ME)			
Sl. No:	Semester	Course Area	Credits
1	S2	Material Science and Engineering	4
2	S3	Mechanics of Solids	4
3		Fluid Mechanics and Machinery	4
4		Computer Aided Machine Drawing & Modelling	2
5		Materials Testing lab	2
6	S4	Machine Tools and Metrology	4
7		Engineering Thermodynamics	4
8		Fluid Mechanics and Hydraulic Machines Lab	2
9		Manufacturing Technology Lab	2
10		Dynamics of Machinery	4
11	S5	Advanced Manufacturing Engineering	4
12		Industrial and Systems Engineering	3
13		Thermal Engineering Lab-1	2
14		Mechanical Engineering Lab	2
15	S6	Heat and Mass Transfer	3
16		Machine Design	3
17		Computer Aided Design and Analysis Lab	2
18		Thermal engineering Lab-2	1
Total Credits (Theory -10, Lab-8)			52
Programme Core-Project Based Learning (PBL)			
Sl. No:	Semester	Course Area	Credits
1	S3	PBMET304 Manufacturing Processes	4
2	S4	PBMET404 Mechanics of Machinery	4
3	S5	PBMET504 Thermal Engineering	4
4	S6	PBMET604 Management for Engineers	4
Total Credits			16
Programme Elective Courses (PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
Total Credits			18

Open Elective Courses				
Sl. No:	Semester	Course Type		Credits
1	S6	OE-1		3
2	S7	OE-2		3
3	S8	OE-3		3
Total Credits				9
Project/ Internship and Seminar				
Sl. No:	Semester	Course Type		Credits
1	S6	Mini Project		2
2	S7	Seminar		2
3		Major Project/Internship		4
4	S8	Major Project/Internship		4
Total Credits				12
Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements
1	I	NSS, NCC, NSO (National Sports Organization)	1 (40 Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.)/ Valid Gate Score.		
6		Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/ Workshop Activities/ Professional Body Activities, Participation in University level/State Level/ National Level Hackathons		
7	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/ International Level Hackathons	1 (40 Points)	
8		Skilling Certificates (Approved by the University)		

- Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.
- For B. Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum..

MARIAN ENGINEERING COLLEGE, TRIVANDRUM
(AUTONOMOUS)



M. Tech Curriculum-2026
Semester I to IV

GEOTECHNICAL ENGINEERING
Branch Code: CE 03

SEMESTER I

SLOT	COURSE CODE	COURSE NAME	MARKS		L-T-P	HOURS	CREDIT
			CIA	ESE			
A	PMET26MA0101	PROBABILITY AND STATISTICS	40	60	3-0-0	3	3
B	PMET26CE0101	ADVANCED SOIL MECHANICS	40	60	3-0-0	3	3
C	PMET26CE0102	FOUNDATION ANALYSIS AND DESIGN	40	60	3-0-0	3	3
D		PROGRAM ELECTIVE 1	40	60	3-0-0	3	3
E		PROGRAM ELECTIVE 2	40	60	3-0-0	3	3
S	PMER26CE0103	RESEARCH METHODOLOGY AND IPR	40	60	2-0-0	2	2
T	PMEL26CE0104	ADVANCED GEOTECHNICAL LABORATORY 1	100	--	0-0-2	2	1
Total			340	360		19	18

Teaching Assistance: 6 hours³**PROGRAM ELECTIVE 1****PROGRAM ELECTIVE 1**

SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
D	1	PMET26CE0151	GROUND IMPROVEMENT TECHNIQUES	3-0-0	3	3
	2	PMET26CE0152	TRANSPORTATION GEOTECHNIQUE	3-0-0	3	3
	3	PMET26CE0153	WASTE MANAGEMENT AND CONTAINMENT SYSTEMS	3-0-0	3	3
	4	PMET26CE0154	ENVIRONMENTAL REMEDIATION ENGINEERING	3-0-0	3	3
	5	PMET26CE0155	ADVANCED DESIGN OF CONCRETE STRUCTURES	3-0-0	3	3
	6	PMET26CE0156	PRESTRESSED CONCRETE STRUCTURES	3-0-0	3	3

PROGRAM ELECTIVE 2**PROGRAM ELECTIVE 2**

SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
E	1	PMET26CE0161	REINFORCED EARTH AND GEOSYNTHETICS	3-0-0	3	3
	2	PMET26CE0162	GROUND MONITORING TECHNIQUES	3-0-0	3	3
	3	PMET26CE0163	GEO ENVIRONMENTAL ENGINEERING	3-0-0	3	3
	4	PMET26CE0164	ENVIRONMENTAL SYSTEM ANALYSIS	3-0-0	3	3
	5	PMET26CE0165	ADVANCED CONCRETE TECHNOLOGY	3-0-0	3	3
	6	PMET26CE0166	EARTHQUAKE RESISTANT DESIGN	3-0-0	3	3

SEMESTER II

SLOT	COURSE CODE	COURSE NAME	MARKS		L-T-P	HOURS	CREDIT
			CIA	ESE			
A	PMET26CE0211	ADVANCED NUMERICAL METHODS	40	60	3-0-0	3	3
B	PMET26CE0202	EARTH RETAINING STRUCTURES	40	60	3-0-0	3	3
C		PROGRAM ELECTIVE 3	40	60	3-0-0	3	3
D		PROGRAM ELECTIVE 4	40	60	3-0-0	3	3
E		INDUSTRY/ INTERDISCIPLINARY ELECTIVE	40	60	3-0-0	3	3
S	PMEP26CE0203	MINI PROJECT	100	--	0-0-4	4	2
T	PMED26CE0204	ADVANCED DESIGN STUDIO	100	--	0-0-2	2	1
Total			400	300		21	18

Teaching Assistance: 6 hours

PROGRAM ELECTIVE 3						
SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
C	1	PMET26CE0251	STRUCTURAL DESIGN OF FOUNDATIONS AND EARTH RETAINING STRUCTURES	3-0-0	3	3
	2	PMET26CE0252	ROCK MECHANICS AND TUNNELING	3-0-0	3	3
	3	PMET26CE0253	ADVANCED STEEL STRUCTURES	3-0-0	3	3
	4	PMET26CE0254	CONSTITUTE MODELING AND FEM	3-0-0	3	3
	5	PMET26CE0255	PROBLEMATIC SOIL AND GEO ENVIRONMENTAL CONCERNS	3-0-0	3	3
	6	PMET26CE0256	BEHAVIOUR AND TESTING OF UNSATURATED SOILS	3-0-0	3	3

PROGRAM ELECTIVE 4						
SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
D	1	PMET26CE0261	REPAIR AND REHABILITATION OF STRUCTURES	3-0-0	3	3
	2	PMET26CE0262	APPLICATION OF REMOTE SENSING IN GEOTECHNICAL ENGINEERING	3-0-0	3	3
	3	PMET26CE0263	SOIL STRUCTURE INTERACTION	3-0-0	3	3
	4	PMET26CE0264	SOIL DYNAMICS AND MACHINE FOUNDATION	3-0-0	3	3
	5	PMET26CE0265	SUSTAINABLE GEOTECHNICS	3-0-0	3	3
	6	PMET26CE0266	EARTH AND ROCK FILL DAMS	3-0-0	3	3

INTERDISCIPLINARY ELECTIVE						
INTERDISCIPLINARY ELECTIVE						

SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
E	1	PMET26CE0281	NATURAL HAZARDS AND IMPACT MANAGEMENT	3-0-0	3	3
	2	PMET26CE0282	MECHANICS OF COMPOSITE MATERIALS	3-0-0	3	3
	3	PMET26CE0283	PROJECT EVALUATION AND MANAGEMENT	3-0-0	3	3

INDUSTRY ELECTIVE**SEMESTER III**

SLOT	COURSE CODE	COURSE NAME	MARKS		L-T-P	HOURS	CREDIT
			CIA	ESE			
A*	PMET26XT0301	MOOC	To be completed successfully		--	--	2
B		AUDIT COURSE	40	60	3-0-0	-	-
C	PMKN26XT0391	INTERNSHIP	50	50	--	3	3
D	PMEP26CE0301	DISSERTATION PHASE I/RESEARCH PROJECT PHASE I	100	--	0-0-17	11	11
Total			190	110		20	16

Teaching Assistance: 6 hours

**MOOC Course to be successfully completed before the commencement of fourth semester (starting from semester 1).*

AUDIT COURSE

SLOT	SL NO	COURSE CODE	COURSE NAME	L-T-P	HOURS	CREDIT
B	1	PMER26IN0371	ACADEMIC WRITING	3-0-0	3	-
	2	PMER26CE0371	ADVANCED ENGINEERING MATERIALS	3-0-0	3	-
	3	PMER26CE0372	FORENSIC ENGINEERING	3-0-0	3	-
	4	PMER26CE0373	REUSE AND RECYCLE TECHNOLOGY	3-0-0	3	-

SEMESTER IV

SLOT	COURSE CODE	COURSE NAME	MARKS		L-T-P	HOURS	CREDIT
			CIA	ESE			
A	PMEP26CE0401	DISSERTATION PHASE II/RESEARCH PROJECT PHASE II	100	100	0-0-24	24	16
Total			100	100		24	16

Teaching Assistance: 5 hours

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



INTEGRATED MASTER OF COMPUTER APPLICATIONS Curriculum-2026

Semester I to X

YEAR: 2026

INT MCA SEMESTER I									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCLT26CA0101	English	4	-	-	40	60	100	4	A
UCST26MA0101	Basic Mathematics	3	1	-	40	60	100	4	B
UCCT26CA0102	Introduction to Programming	3	1	-	40	60	100	4	C
UCET26CA0103	Introduction to Computers & PC hardware	3	1	-	40	60	100	4	D
UCHT26HU0101	Fundamentals of Accountancy	3	1	-	40	60	100	4	E
UCCL26CA0104	Office Automation Lab			5	100		100	1	S
UCEL26CA0105	Introduction - PC hardware Lab			4	100		100	1	T
		16	4	9	400	300	700	22	
INT MCA SEMESTER II									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCLT26CA0201	Technical Communication	3	1	-	40	60	100	4	A
UCST26MA0201	Introduction to Discrete Mathematics	3	1	-	40	60	100	4	B
UCET26CA0202	Introduction to Digital Systems & Logic Designs	3	1	-	40	60	100	4	C
UCCT26CA0203	Problem Solving and Structured Programming	3	1	-	40	60	100	4	D
UCHT26CA0204	Personality Development and Soft Skills	3	1	-	40	60	100	4	R
UCCL26CA0205	Problem Solving and Structured Programming Lab			5	100		100	1	S
UCLL26CA0206	Technical Communication Lab			4	100		100	1	T
		15	5	9	400	300	700	22	
INT MCA SEMESTER III									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCET26CA0301	Computer Organization	3	1	-	40	60	100	4	A
UCST26MA0301	Probability and Statistics	3	1	-	40	60	100	4	B
UCET26CA0302	Introduction to Object Oriented Programming	3	1	-	40	60	100	4	C
UCHT26CA0303	Accounting and Financial Management	3	1	-	40	60	100	4	D
UCET26CA0304	Data Structures	3	1	-	40	60	100	4	E
UCCL26CA0305	Data Structures Lab			5	100		100	1	S
UCCL26CA0306	Basic Object Oriented Programming Lab			4	100		100	1	T
		15	5	9	400	300	700	22	
INT MCA SEMESTER IV									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCCT26CA0401	Linux/ Unix Fundamentals	3	1	-	40	60	100	4	A
UCST26MA0401	Statistical Applications	3	1	-	40	60	100	4	B
UCET26CA0402	Operating Systems	3	1	-	40	60	100	4	C
UCMT26CA0403	Elements of Business Management	3	1	-	40	60	100	4	D
UCCT26CA0404	Internet Concepts and Web Technology	3	1	-	40	60	100	4	E
UCCL26CA0405	Scripting Lab			5	100		100	1	S

UCSL26MA0402	Statistics Lab			4	100		100	1	T
		15	5	9	400	300	700	22	
INT MCA SEMESTER V									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCST26MA0501	Numerical Methods	3	1	-	40	60	100	4	A
UCCT26CA0501	User Interface Design	3	1	-	40	60	100	4	B
UCCT26CA0502	Introduction to RDBMS and SQL	3	1	-	40	60	100	4	C
UCCT26CA0503	Fundamentals of Information Systems Security	3	1	-	40	60	100	4	D
UCST26MA0502	Introduction to Operations Research	3	1	-	40	60	100	4	E
UCCL26CA0504	RDBMS Lab			5	100		100	1	S
UCCL26CA0505	User Interface Design Lab			4	100		100	1	T
		15	5	9	400	300	700	22	
INT MCA SEMESTER VI									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
UCET26CA0601	Introduction to Software Engineering	3	1	-	40	60	100	4	A
UCCT26CA0602	Fundamentals of Data Science	3	1	-	40	60	100	4	B
UCCT26CA0603	Visual Programming	3	1	-	40	60	100	4	C
UCET26CA0604	Design & Analysis of Algorithms	3	1	-	40	60	100	4	D
UCCP26CA0605	Mini Project 1			4	100		100	2	R
UCCL26CA0606	Open Source Platforms - Lab		1	4	100		100	1	S
UCCL26CA0607	Visual Programming Lab			4	100		100	1	T
		12	5	12	460	240	700	20	
INT MCA SEMESTER VII									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
PCMT26CA0701	M- Commerce	3	1	-	40	60	100	4	A
PCCT26CA0702	Java Programming	3	1	-	40	60	100	4	B
PCCT26CA0703	Advanced Web programming	3	1	-	40	60	100	4	C
PCCT26CA0704	Advanced Software Engineering	3	1	-	40	60	100	4	D
PCCT26CA0705	Distributed Computing	3	1	-	40	60	100	4	E
PCCL26CA0706	Java Programming - Lab		1	3	100		100	1	S
PCCL26CA0707	Advanced Web programming Lab		1	3	100		100	1	T
PCKR26CA0708	Entrepreneurship & Innovations in Technology			1				0	
		15	7	7	400	300	700	22	
INT MCA SEMESTER VIII									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
PCCT26CA0801	Advanced Database Management Systems	3	1	-	40	60	100	4	A
PCET26CA0802	Advanced Computer Networks	3	1	-	40	60	100	4	B
PCKT26CA0803	Research Methodology	3	1	-	40	60	100	4	C

XXXXXXX	Elective 1	3	1	-	40	60	100	4	D
XXXXXXXXXXXXXX	Elective 2	3	1	-	40	60	100	4	E
PCCL26CA0804	Advanced DBMS Lab		1	3	100		100	1	S
PCCL26CA0805	Networking & System Administration Lab		1	3	100		100	1	T
PCKN26CA0806	Industrial Readiness Training			1				0	
		15	7	7	400	300	700	22	

INT MCA SEMESTER IX

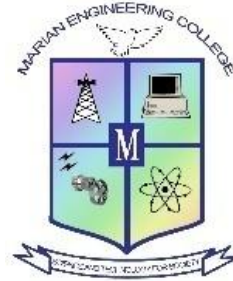
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
PCCT26CA0901	Data Science & Machine Learning	3	1	-	40	60	100	4	A
PCCT26CA0902	Mobile Computing	3	1	-	40	60	100	4	B
XXXXXXXXXXXXXX	Elective 3	3	1	-	40	60	100	4	C
XXXXXXXXXXXXXX	Elective 4	3	1	-	40	60	100	4	D
PCCP26CA0903	Mini Project 2			4	100		100	2	R
PCCL26CA0904	Data Science Lab		1	3	100		100	1	S
PCCL26CA0905	Mobile Application Development Lab		1	3	100		100	1	T
PCKW26CA0906	Domain Expertise Workshops			1				0	
		12	6	11	460	240	700	20	

INT MCA SEMESTER X

Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
PCER26CA1001	Comprehensive Viva	-	-	-	-	100	100	6	
PCES26CA1002	Seminar	-	-	2	50	-	50	2	
PCEP26CA1003	Main Project	-	-	27	70	30	100	12	
		-	-	29	120	130	250	20	
	TOTAL						6550	214	

Elective I	
PCST26MA0851	Applied Statistics
PCHT26CA0852	Organizational Behaviour
PCCT26CA0853	Functional Programming
PCET26CA0854	Virtualisation and Containers
PCCT26CA0855	Advanced Operating Systems
Elective II	
PCMT26CA0861	Business Management
PCET26CA0862	Embedded Systems
PCET26CA0863	Computer Graphics
PCET26CA0864	Artificial Intelligence
PCHT26CA0865	IPR and Cyber Laws
Elective III	
PCST26MA0951	Operations Research
PCET26CA0952	Cyber Security & Cryptography
PCET26CA0953	Cloud Computing
PCCT26CA0954	Cyber Forensics
PCET26CA0955	Compiler Design
Elective IV	
PCET26CA0961	Internet of Things
PCET26CA0962	Deep Learning
PCET26CA0963	Digital Image Processing
PCCT26CA0964	Bioinformatics
PCCT26CA0965	Social Network Analysis

MARIAN ENGINEERING COLLEGE, TRIVANDRUM (AUTONOMOUS)



**MBA Curriculum-2026
Semester I to IV**

Programme:

**MASTER OF BUSINESS ADMINISTRATION
YEAR: 2026**

SEMESTER-1

Exam Slot	Course Code	Course Name	L-T-P	Internal Marks	End Semester Marks	Exam Duration (hours)	Credits
A	PGMT26MG0101	Introduction to Business	3-0-0	40	60	3	3
B	PGMT26MG0102	Quantitative Techniques for Managers	4-0-0	40	60	3	4
C	PGMT26MG0103	Organizational Behaviour	3-0-0	40	60	3	3
D	PGMT26MG0104	Business Economics	4-0-0	40	60	3	4
E	PGMT26MG0105	Information Systems for Managers	3-0-0	40	60	3	3
F	PGMT26MG0106	Accounting for Managers	4-0-0	40	60	3	4
G	PGMT26MG0107	Ethics, Governance and Corporate Responsibility	3-0-0	40	60	3	3
H	PGMT26MG0108	Legal Systems for Business	3-0-0	40	60	3	3
	PGMT26MG0109*	Employability Enhancement Programme	0-0-2	-	-	-	0
		TOTAL	27-0-2	320	480	-	27

*- Non-Credit Course1

SEMESTER-2

Exam Slot	Course Code	Course Name	L-T-P	Internal Marks	End Semester Marks	Exam Duration (hours)	Credits
A	PGMT26MG0201	Marketing Management	4-0-0	40	60	3	4
B	PGMT26MG0202	Financial Management	4-0-0	40	60	3	4
C	PGMT26MG0203	Human Resource Management	3-0-0	40	60	3	3
D	PGMT26MG0204	Operations Management	3-0-0	40	60	3	3
E	PGMT26MG0205	Operations Research	4-0-0	40	60	3	4
F	PGMT26MG0206	Research for Managerial Decisions	3-0-0	40	60	3	3
G	PGMT26MG0207	Entrepreneurship Development	3-0-0	40	60	3	3
		Any PG Management Course of 3 Credits of NPTEL/SWAYAM	0-0-4	-	-	-	3
	PGMT26MG0208*	Integrated Disaster Management	1-0-1	-	-	-	0
		TOTAL	25-0-4	280	420	-	27

*Non-Credit Course2

**MBA SUMMER INTERNSHIP OUTSIDE THE COLLEGE: (6 WEEKS to 8 WEEKS)

SEMESTER-3

Exam Slot	Course Code	Course Name	L-T-P	Internal Marks	End Semester Marks	Exam Duration (hours)	Credits
A	PGMT26MG0301	International Business	4-0-0	40	60	3	4
B	PGMT26MG0302	Business Analytics	4-0-0	40	60	3	4
C	PGMT26MG03- -	Elective I	3-0-0	40	60	3	3
D	PGMT26MG03- -	Elective II	3-0-0	40	60	3	3
E	PGMT26MG03- -	Elective III	3-0-0	40	60	3	3
F	PGMT26MG03- -	Elective IV	3-0-0	40	60	3	3

G	PGMT26MG03- -	Elective V	3-0-0	40	60	3	3
	PGMN26MG0303	Internship	0-0-6	40	60	-	3
		TOTAL	23-0-6	320	480	-	26

SEMESTER- 4

1. Electives HR
2. Specialization (code: 4)

Course No.	HR Electives	Semester	Exam Slot
PGMT26MG0340	Dynamics of Training and Executing Development	S3	C
PGMT26MG0341	Discovery of Self & Others	S3	C
PGMT26MG0342	Organizational Change and Development	S3	D
PGMT26MG0343	HRM Policies & Strategies	S3	D
PGMT26MG0344	Industrial Relations and Labour Law	S3	E
PGMT26MG0345	Global HRM	S3	E
PGMT26MG0346	Human Resource Analytics	S3	F
PGMT26MG0347	Leadership, Influence & Power	S3	F
PGMT26MG0348	Reward Management	S3	G
PGMT26MG0349	Negotiations & Conflict Resolutions	S3	G
PGMT26MG0440	Performance Management	S4	C
PGMT26MG0441	Management of Creativity & Innovation	S4	C
PGMT26MG0442	Team Dynamics & Cross Cultural Management	S4	D
PGMT26MG0443	Industrial Psychology	S4	D
PGMT26MG0444	HR Consulting: Profession and Practice	S4	E
PGMT26MG0445	Talent Source & Acquisitions	S4	E

3. Finance Specialization (code: 5)

Course No.	Finance Electives	Semester	Exam Slot
PGMT26MG0350	Financial Markets and Services	S3	C
PGMT26MG0351	Project Finance	S3	C
PGMT26MG0352	Cost Accounting and Budget Control	S3	D
PGMT26MG0353	Security Analysis and Portfolio Management	S3	D
PGMT26MG0354	Managing Banks and Financial Institutions	S3	E
PGMT26MG0355	Entrepreneurial Finance	S3	E
PGMT26MG0356	International Finance	S3	F
PGMT26MG0357	Statistics Methods for Financial Analytics	S3	F
PGMT26MG0358	Financial Technologies	S3	G
PGMT26MG0359	NBFCs & Micro Finance	S3	G
PGMT26MG0450	Financial Information Analysis	S4	C
PGMT26MG0451	Financial Derivatives	S4	C
PGMT26MG0452	Financial Risk Management	S4	D

PGMT26MG0453	Strategic Financial management	S4	D
PGMT26MG0454	Insurance Management	S4	E
PGMT26MG0455	Financial Applications for Machine Learning	S4	E

4. Marketing Specialization (code: 6)

Course No.	Marketing Electives	Semester	Exam Slot
PGMT26MG0360	Strategic Marketing Intelligence	S3	C
PGMT26MG0361	B2B Marketing	S3	C
PGMT26MG0362	Consumer Behaviour	S3	D
PGMT26MG0363	Services Marketing	S3	D
PGMT26MG0364	Integrated Marketing Communications	S3	E
PGMT26MG0365	Marketing Research	S3	E
PGMT26MG0366	Retail Management	S3	F
PGMT26MG0367	Sales & Distribution Management	S3	F
PGMT26MG0368	Brand Management	S3	G
PGMT26MG0369	Hospitality and Tourism Marketing	S3	G
PGMT26MG0460	Social Marketing	S4	C
PGMT26MG0461	Customer Relationship Management	S4	C
PGMT26MG0462	Rural Marketing	S4	D
PGMT26MG0463	Strategic Marketing	S4	D
PGMT26MG0464	International Marketing	S4	E
PGMT26MG0465	Digital and Social Media Marketing	S4	E

5. Operations Specialization (code: 7)

Course No.	Operation Electives	Semester	Exam Slot
PGMT26MG0370	Supply Chain Management	S3	C
PGMT26MG0371	Facilities & Location Management	S3	C
PGMT26MG0372	Quality Management	S3	D
PGMT26MG0373	Six Sigma & TQM	S3	D
PGMT26MG0374	Business Process Reengineering	S3	E
PGMT26MG0375	Services & Operations Management	S3	E
PGMT26MG0376	Healthcare Management	S3	F
PGMT26MG0377	Decision Analysis for Management	S3	F
PGMT26MG0378	Advanced Maintenance Management	S3	G
PGMT26MG0379	Advanced Project Management	S3	G
PGMT26MG0470	Technology Application and IPR	S4	C
PGMT26MG0471	Innovation and New Product Management	S4	C
PGMT26MG0472	Business Planning for Small & Medium Enterprises	S4	D
PGMT26MG0473	Managing Public Private Partnerships	S4	D
PGMT26MG0474	New Business Models	S4	E
PGMT26MG0475	World Class Manufacturing	S4	E

6. Systems Specialization (code: 8)

Course No.	System Electives	Semester	Exam Slot
PGMT26MG0380	System Analysis and Design	S3	C
PGMT26MG0381	Global Information System	S3	C
PGMT26MG0382	Business Database System	S3	D
PGMT26MG0383	Knowledge Management and IT/ ITES Consulting	S3	D
PGMT26MG0384	Information Security and Risk Management	S3	E
PGMT26MG0385	Business Intelligence and Data warehousing	S3	E
PGMT26MG0386	e-Business	S3	F
PGMT26MG0387	AI Strategies for Business	S3	F
PGMT26MG0388	e-Governance	S3	G
PGMT26MG0389	Simulation for Managers	S3	G
PGMT26MG0480	Business Data Mining	S4	C
PGMT26MG0481	Software Project Management	S4	C
PGMT26MG0482	Enterprise Resource Planning	S4	D
PGMT26MG0483	Cloud Computing & Cyber Security	S4	D
PGMT26MG0484	Enterprise Management in Digital era	S4	E
PGMT26MG0485	Software Engineering	S4	E

7. Logistics & Supply Chain Specialization (code: 9)

Course No.	Logistics & Supply Chain Electives	Semester	Exam Slot
PGMT26MG0390	Logistics and Supply Chain Management: Concepts and Practice	S3	C
PGMT26MG0391	Procurement, Inventory and Warehousing Management	S3	D
PGMT26MG0392	Freight Transportation and Distribution Management	S3	E
PGMT26MG0393	International Trade Procedures, Documentation and Customs Law	S3	F
PGMT26MG0394	Port, Airport and Multimodal Logistics	S3	G
PGMT26MG0490	Supply Chain Analytics and Softwares	S4	C
PGMT26MG0491	E-Commerce Supply Chain and Last-Mile Logistics	S4	D
PGMT26MG0492	Supply Chain Risk and Sustainability Management	S4	E

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