



# BHARATI VIDYAPEETH

(Deemed to be University)

Pune, India.

- Accredited with 'A+' Grade (2017) by NAAC
- 'A' Grade University Status by MHRD, Govt. of India
- Accredited (2004) & Reaccredited (2011) with 'A' Grade by NAAC
- Category-I (Deemed to be University Grade) by University Grants Commission
- Recognized under Section '12 B' of UGC Act (1956) by University Grants Commission
- Ranked 91<sup>st</sup> among Top 100 Universities by NIRF 2023, Ministry of Education, Govt. of India

## INFORMATION BROCHURE OF ENTRANCE TEST

# BV-M.TECH.-2024



**Bharati Vidyapeeth**  
(Deemed to be University) Pune, India

**For Admission to the Postgraduate  
Degree Programmes**

**COLLEGE OF ENGINEERING, PUNE-43**

- Secured 3.5 out of 5 stars & attained position in Top 150 ICC councils
- 15<sup>th</sup> Ranking by DATAQUEST-CMR.
- 17<sup>th</sup> Ranking by Times of India.
- 29<sup>th</sup> Ranking by Outlook.
- 13<sup>th</sup> Ranking by India Today.
- Programmes accredited by NBA, New Delhi.
- Awarded with India's best engineering Institutes 2023 by CAREERS 360 with AAAA Grade
- 1st Ranking in Maharashtra by IIRF for Placement
- Awarded with best engineering Institutes by Institution of Engineers (INDIA)

# OUR INSTITUTE

**Bharati Vidyapeeth**  
(Deemed to be University), Pune, India  
**College of Engineering, Pune**

Pune Satara Road, Dhankawadi, Pune 43.

Tel. No. : 020 24107390/24107391, 397, 398, 399 Fax No. : 020 24372998

Website : [bvucoepune.edu.in](http://bvucoepune.edu.in), Email : [admissions@bvucoep.edu.in](mailto:admissions@bvucoep.edu.in)/[info@bvucoep.edu.in](mailto:info@bvucoep.edu.in)

For Enquiry - Contact Tel. No. : 020-24407131/132 Website : [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in) E-Mail : [cet@bharativedyapeeth.edu](mailto:cet@bharativedyapeeth.edu)

## Important Dates M. Tech. - 2024

| Entrance Test                                     | Last Date of Online Application | Date of Entrance Test            | Date of Declaration of Merit list |
|---|---------------------------------|----------------------------------|-----------------------------------|
| <b>BV-M.TECH.-2024</b><br>(Date of entrance test) | <b>5<sup>th</sup> June 2024</b> | <b>16<sup>th</sup> June 2024</b> | <b>25th June 2024</b>             |

**Date of Counselling and spot admission : 8th July 2024**

The Schedule and venue of counselling and on the spot admission will be notified at website [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in)

**Fee structure for the year 2024-25 is mentioned in point no. 8 in this information brochure.**

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|                         |   |                       |
|-------------------------|---|-----------------------|
| Commencement of Classes | : | <b>15th July 2024</b> |
|-------------------------|---|-----------------------|

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**Hon'ble Dr. Patangrao Kadam**

Founder : Bharati Vidyapeeth (1964)

FOUNDER - CHANCELLOR: Bharati Vidyapeeth (Deemed to be University)







: Vision of the University :  
To be a world class University for Social Transformation through Dynamic Education



**Hon'ble Dr. Shivajirao Kadam**  
Chancellor,  
Bharati Vidyapeeth  
(Deemed to be University), Pune



**Hon'ble Dr. Vishwajit Kadam**  
Secretary,  
Bharati Vidyapeeth  
Pro Vice Chancellor,  
Bharati Vidyapeeth  
(Deemed to be University), Pune



**Hon'ble Prof. Dr. Vivek Saoji**  
Vice Chancellor,  
Bharati Vidyapeeth  
(Deemed to be University), Pune

## BHARATI VIDYAPEETH

### Nurturing Values Since 1964....

Established on 10th May 1964 by Visionary Leader Dr. Patangraoji Kadam, Bharati Vidyapeeth, the parent body of Bharati Vidyapeeth (Deemed to be University) is celebrating 60 glorious years in the education sector. Bharati Vidyapeeth today is widely acclaimed as one of the largest Educational Conglomerate in India imparting quality education right from pre-primary up to doctoral level through its 190+ institutions and 29 constituent units.

The ambit of Bharati Vidyapeeth institutions of higher education encompasses all professional disciplines which include the colleges of Medicine, Dentistry, Nursing, Audiology, Optometry, Physiotherapy, Ayurved, Homeopathy, Engineering, Architecture, Management, Law, Pharmacy, Hotel Management and Catering Technology, Environment Education, Physical Education, Health Management, Biotechnology etc.

Research today is at the center stage of every educational institution. Foreseeing it way back in 1986 Dr. Patangraoji Kadam founded two self-financed indigenous research institutes viz; R&D Centre for Pharmaceutical Sciences and Applied Chemistry; and Yashwantrao Chavan Institute of Social Science Studies and Research. Subsequently in 2001 International Research School for Health Affairs (IRSHA) was incorporated, which has collaboration with research partners from India and Abroad. These institutes have inculcated a research culture in the campuses of Bharati Vidyapeeth.

With a strong belief in social inclusion and living up to its mission statement 'Social Transformation through Dynamic Education', Bharati Vidyapeeth has spread its wings to provide educational opportunities to both the haves and have nots of the society by establishing campuses at Pune, New Delhi, Navi Mumbai, Kolhapur, Solapur, Karad, Satara and Panchgani.



## BHARATI VIDYAPEETH (Deemed to be University) PUNE

In recognition of excellence in the field of education, Ministry of Human Resources Development, Government of India on recommendation of UGC conferred the prestigious Deemed to be University status to 12 institutions of Bharati Vidyapeeth in 1996. This is how Bharati Vidyapeeth (Deemed to be University) came into existence.

Later another 17 institutions were added to the ambit of Bharati Vidyapeeth (Deemed to be University). Today, it has 29 constituent colleges and another 13 schools and departments under 12 faculties namely:

1. Medical Sciences
2. Dentistry
3. Ayurved
4. Homeopathy
5. Nursing
6. Engineering and Technology
7. Pharmaceutical Sciences
8. Management Studies
9. Arts, Social Sciences and Commerce
10. Sciences
11. Law
12. Interdisciplinary Studies

All the constituent colleges are known for its excellent infrastructure, experienced and caring faculty, contemporary curricula, ICT based teaching learning methodology, thrust on research and ample opportunities for co-curricular & extra-curricular activities.



**Medical Sciences**



**Dentistry**



**Ayurved**



**Homeopathy**



**Nursing**



## Constituent Units of Bharati Vidyapeeth (Deemed to be University)

1. BVDU Medical College, Pune.
2. BVDU Dental College & Hospital, Pune
3. BVDU College of Ayurved, Pune
4. BVDU Homoeopathic Medical College, Pune
5. BVDU College of Nursing, Pune
6. BVDU Yashwantrao Mohite College of Arts, Science & Commerce, Pune.
7. BVDU New Law College, Pune
8. BVDU Social Science Centre (M.S.W.), Pune
9. BVDU Yashwantrao Chavan Institute of Social Science Studies & Research, Pune.
10. BVDU Centre for Research & Development in Pharmaceutical Sciences & Applied Chemistry, Pune
11. BVDU College of Physical Education, Pune.
12. BVDU Institute of Environment Education & Research, Pune
13. BVDU Institute of Management & Entrepreneurship Development, Pune
14. BVDU Poona College of Pharmacy, Pune
15. BVDU College of Engineering, Pune
16. BVDU Interactive Research School in Health Affairs (IRSHA), Pune
17. BVDU Rajiv Gandhi Institute of Information Technology & Biotechnology, Pune
18. BVDU College of Architecture, Pune
19. BVDU Abhijit Kadam Institute of Management & Social Sciences, Solapur
20. BVDU Institute of Management, Kolhapur
21. BVDU Institute of Management & Rural Development Administration, Sangli
22. BVDU Institute of Management & Research, New Delhi
23. BVDU Institute of Hotel Management & Catering Technology, Pune
24. BVDU Yashwantrao Mohite Institute of Management, Karad
25. BVDU Medical College & Hospital, Sangli
26. BVDU Dental College & Hospital, Mumbai
27. BVDU Dental College & Hospital, Sangli
28. BVDU College of Nursing, Sangli
29. BVDU College of Nursing, Navi Mumbai



**Pharmaceutical Sciences**



**Law**



**Engineering and Technology**



**Homeopathy**



**Management Studies**



## Distinctive Features of Bharati Vidyapeeth (Deemed to be University)

### This University:

- The University offers 160+ programmes under 12 faculties.
- High quality all-around education with many students from all over India and 35 countries to pursue their studies.
- 24000+ students enrolled into various programmes offered by the University.
- Behind the reputation of the University are the solid credentials of accomplished and experienced 1700 + faculty members, imparting quality education.
- Excellent placement record for its students across faculties and has known industry endorsements for continuous industry institution interactions.
- Strong alumni network spread across the globe.
- Programmes are designed to enhance employability of students with focus on collaborative and experiential learning pedagogy.
- Entrepreneurship cell has been established to develop entrepreneurial skill and incubate innovative business ideas.
- University constantly encourages and facilitates its faculties to be actively engaged in academic research and publications besides their teaching assignments by establishing collaborative and interdisciplinary research links with industries and institutions around the world.
- All professional programmes are approved by respective Statutory Councils.
- As part of dissemination of knowledge, University organizes International and National Conferences, Seminars, Workshops etc, on recent and upcoming themes.
- Knowledge Resource Centre (Libraries) have an excellent collection of books, print journals, e-journals, and magazines etc. which are regularly being expanded by adding latest publications.
- Augmented infrastructural facilities including smart classrooms, tools for blended learning, laboratories equipped with latest technologies, free accessibility to Wi-Fi, lush green campuses, adequate recreational facilities, on campus residential accommodation etc.
- University is committed to engage for the welfare of the society through various schemes of outreach Programmes, field work and community engagement.

## University Achievements:

Accredited with 'A+' Grade (2017) by NAAC

'A' Grade University Status by MHRD, Govt. of India

Accredited (2004) & Reaccredited (2011) with 'A' Grade by NAAC

Category-I (Deemed to be University Grade) by University Grants Commission

Recognized under Section '12 B' of UGC Act (1956) by University Grants Commission

Ranked among Top 100 Universities by NIRF 2023, MHRD Govt. of India

## Other Achievements of the University:



### NBA

- College of Engineering have been accredited with National Board of Accreditation for its 3 UG Programmes
- B.Pharm programme of Poona College of Pharmacy has been accredited with NBA



### NABH

- Bharati Hospital and Research Centre of Medical College has undergone assessments for full NABH accreditation.



### NABL

- Hospital Laboratories in Pathology, Microbiology and Biochemistry have been accredited with NABL
- Centre for food testing Laboratory



### FDA Approval

- NABH accreditation and FDA approval for Hospital Blood Bank, Safe-I accreditation of the NABH for Infectious diseases was also received.
- Blood Bank
- Public Testing Laboratory of Poona College of Pharmacy, Pune



## BVDU College Of Engineering, Pune.

Bharati Vidyapeeth (Deemed to be University), College of Engineering, Pune (BVDUCOE), a constituent unit of Bharati Vidyapeeth (Deemed to be University), Pune, India. (University with 'A' Grade status by MHRD, Accredited 'A+' by NAAC in 2017 and 'A' Grade in 2004 & 2011) and holds a place of pride and is amongst the most reputed institute. DATAQUEST-CMR national survey also ranked this institute to 18<sup>th</sup> among private technical institutions of India. Ranked 34<sup>th</sup> by Times of India, 29<sup>th</sup> by OUTLOOK and 18<sup>th</sup> by India Today. All programmes are accredited by National Board of Accreditation (NBA), New Delhi.

### Ranking :

- Secured 3.5 out of 5 stars & attained position in Top 150 ICC councils
- 15<sup>th</sup> Ranking by DATAQUEST-CMR.
- 17<sup>th</sup> Ranking by Times of India.
- 29<sup>th</sup> Ranking by Outlook.
- 13<sup>th</sup> Ranking by India Today.
- Programmes accredited by NBA, New Delhi.
- Awarded with India's best engineering Institutes 2023 by CAREERS 360 with AAAA Grade
- 1st Ranking in Maharashtra by IIRF for Placement
- Awarded with best engineering Institutes by Institution of Engineers (INDIA)

### Vision:

To be World Class Institute for Social Transformation Through Dynamic Education

### Mission:

1. To provide quality technical education with advanced equipments, qualified faculty members, infrastructure to meet needs of profession and society.
2. To provide an environment conducive to innovation, creativity, research and entrepreneurial leadership.
3. To practice and promote professional ethics, transparency and accountability for social community, economic and environmental conditions.

### Goals:

- a) Recruiting experienced faculty.
- b) Organising faculty development programs.
- c) Identifying socio-economically relevant areas and emerging technologies.
- d) Constant review and upgradation of curricula.
- e) Upgradation of laboratories, library and communication facilities.
- f) Collaboration with industry and research & development organizations.
- g) Sharing of knowledge, infra-structure and resources.
- h) Training, Extension, Testing and consultancy services
- i) Promoting interdisciplinary research.

For Details regarding infrastructural facilities, resources available and other activities conducted at institute are available on

[www.bvucoe pune.edu.in](http://www.bvucoe pune.edu.in)



## PROCEDURE AND RULES FOR ADMISSION

### 1. GENERAL

The students will be admitted to the Engineering degree courses of the College of Engineering, Pune on the basis of the merit obtained by them in the All India Common Entrance Test **BV-M.Tech.-2024** conducted by the Bharati Vidyapeeth (Deemed to be University).

### Courses & Intake Capacities at BVDU College of Engineering Pune

| Sr. No. | Name of programme                           | Students intake for first year |
|---------|---|--------------------------------|
| 1.      | M. Tech. (Civil-Water resource Engineering) | 06                             |
| 2       | M. Tech. (Computer)                         | 06                             |
| 3       | M. Tech. (Chemical)                         | 06                             |
| 4       | M. Tech. (Electrical - Power Systems)       | 06                             |
| 5       | M. Tech. (Electronics-VLSI Design)          | 06                             |
| 6       | M. Tech. (Mechanical - CAD - CAM)           | 06                             |
| 7       | M. Tech. (Information Technology)           | 06                             |
| 8       | M.Tech. (Nanotechnology)                    | 06                             |

Distribution of 6 seats of each course as per AICTE norms are as follows :

| Category  | No. of Seats |
|-----------|--------------|
| Open      | 03           |
| Sponsored | 02           |
| SC/ST     | 01           |

#### Note. :

#### a) Foreign National / PIO / OCI / NRI / Institutional Quota Merit Seats :

Fifteen percent (15%) of the sanctioned intake in each branch are reserved for Foreign/NRI(Non-Resident-Indian)/P.I.O./O.C.I./ Institutional Quota Merit Category students. Candidates seeking admissions to the seats of this category will have to apply to The Registrar, Bharati Vidyapeeth (Deemed to be University) Pune, India. Submit the form at Registrar office at Bharati Vidyapeeth (Deemed to be University), L.B. Shastri Road, Pune-41 1030. The Form fee for this category is RS. 1000/- (non refundable). The last date for submission of form to this Category is **5th June 2024 before 5.00 p.m.** Seats remaining vacant after allotment to Foreign / N.R.I. / P.I.O. / O.C.I. merit students will be allotted to Indian students under Institutional Quota Merit Category on the basis of marks obtained by them in the **BV-M.Tech.-2024**.

Only those candidates who would satisfy all the eligibility requirements as mentioned above will be considered eligible to appear in the entrance test and for admission to the programme.

All the candidates seeking admissions will have to appear for Entrance Test **BV-M.Tech.-2024** conducted by Bharati Vidyapeeth (Deemed to be University), Pune. All candidates will have to apply online & fill the prescribed application form at the website [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in)

### 2 ELIGIBILITY FOR APPEARING IN BV-M.Tech.-2024 and Subsequent Admission:

Common Eligibility Requirements for Admission to M. Tech. Programmes

- Only those candidates who would satisfy or are likely to satisfy the relevant eligibility requirements for admission to M.Tech. programmes will be considered eligible to appear for the Entrance Test, **BV-M.Tech.-2024** and subsequently for admission to that Programme

2. Bachelor's degree or equivalent in the relevant field. Obtained at least 50% marks for open category (45% in case of candidate belonging to SC/ST category) at the qualifying Examination.

### Branch Specific Eligibility Criteria for M.Tech. Programmes.

#### 1. **M.Tech.(Civil-Water Resource Engineering):**

The candidate should possess B.E./B.Tech. degree in Civil Engineering /Environmental Engineering /Construction Engineering / Water Resources Engineering /Construction Technology /Civil and water management or its equivalent from an AICTE approved institution or AMIE(Civil)with valid GATE score.

#### 2. **M.Tech.(Computer)/M.Tech.(IT):**

The candidate should possess B.E./B.Tech. degree in Computer Engineering /Information Technology/Computer Science and Engineering/Computer Technology/Computer Science and Technology/Computer Science and Business System or its equivalent from an AICTE approved institution or AMIE(Computer Engineering) with valid GATE score.

#### 3. **M.Tech.(Chemical):**

The candidate should possess B.E./B.Tech. degree in Chemical Engineering/ Chemical Technology/ Petroleum Engineering/ Paper and Pulp Technology/ Petro Chemical Engineering / Petro Chemical Technology/ Pharmaceutical and Fine Chemical Technology/ Dyestuff Technology/ Pharmaceuticals Chemistry and Technology or its equivalent from an AICTE approved institution or AMIE(Chemical Engineering) with valid GATE score.

#### 4. **M.Tech.(Electrical-Power Systems):**

The candidate should possess B.E./B.Tech. degree in Electrical Engineering/ Electrical and Electronics Engineering/ Electrical Engineering [Electrical and Power]/ Power Engineering/ Electrical Engineering[Electronics and Power]/ Electrical and Power Engineering or its equivalent from an AICTE approved institution or AMIE(Electrical Engineering) with valid GATE score.

#### 5. **M.Tech.(Electronics-VLSI Design):**

The candidate should possess B.E./B.Tech. degree in Electronics Engineering/Electronics & Telecommunication /Industrial Electronics/Electronics Product Design Technology/ Electronics Product Design Technology/ Electronics and Communication Engineering/ Electronics and Telecommunication Engineering/ Electronics Engineering/ Electronic and Communication Technology/ Electrical and Electronics [Power System]/ Electronics System Engineering or its equivalent from an AICTE approved institution or AMIE in respective branch with valid GATE score.

#### 6. **M.Tech.(Mechanical-CAD-CAM):**

The candidate should possess B.E./B.Tech. degree in Mechanical Engineering/Production Engineering/ Aeronautical Engineering/ Automobile Engineering/ Mechanical Engineering/ Mechanical Engineering[Sandwich]/ Mechanical & Automation Engineering / Mechatronics Engineering / Mechatronics Engineering[Sandwich]or its equivalent from an AICTE approved institution or AMIE in respective branch with valid GATE score.

#### 7. **M.Tech.(Nano-Technology):**

The candidate should possess B.E./B.Tech. degree in any Engineering discipline or its equivalent from an AICTE approved institution or AMIE with valid GATE score.



**Conditions for Sponsored candidates:**

1. Admission will be given as per AICTE norms.
2. Candidate should have two years of full time experience in a registered firm/company/industry/educational and research institute/any other government department/government autonomous bodies or organizations in the relevant field.
3. A letter from employer must be furnished stating that the candidate is being sponsored to the course. The employer should also mention that the candidate will not be withdrawn before the completion of the course and he/she will be available full time in the college for completion of the course. Letter to this effect from the employer should be brought at the time of counseling.

**Concession for the ward of Kashmiri Migrants and Kashmiri Pandit /Kashmiri Hindu Families[Non Migrants] living in Kashmir valley for admission in Higher Education Institutions.**

As per circular No. F. No. 3-4/2017-NER, Government of India, Ministry of Human Resource Development, Department of Higher Education, Economic Administration Division, dated **15th October 2019**, concession for the ward of Kashmiri Migrants and Kashmiri Pandit /Kashmiri Hindu Families [Non-Migrants] living in Kashmir valley for admission in Higher Education Institutions.

- i. Relaxation in cut-off percentage up to 10% subject to minimum eligibility requirements.
- ii. Increase in intake capacity up to 5% course-wise.
- iii. Reservation of at least one seat in merit quota in technical/professional institutions.
- iv. Waiving off domicile requirements for Kashmiri migrants only. Kashmiri Pandits/Kashmiri Hindu families [Non- Migrants] living in the Kashmiri Valley need domicile certificate.

**3. BASIS OF SELECTION FOR ADMISSION**

- 3.1 A Candidate desirous of seeking admission to First Year of M.Tech.(Engineering) Programme should fulfill the minimum eligibility condition as stated in point no 2, above.
- 3.2 He/She must have appeared for the Entrance Test **BV-M.Tech.-2024** conducted by Bharati Vidyapeeth (Deemed to be University), Pune at designated centres.
- 3.3 The candidates whose names appear in the list prepared on the basis of marks obtained by them in Entrance Test **BV-M.Tech.-2024** should attend the Counselling and on-the-spot admissions sessions to the various branches and programmes as per their ranks in the merit list. The Counselling schedule of combined for all branches will be notified at [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in) Mere appearance in the entrance test and inclusion of name in the merit list does not confer any automatic rights to secure admission to the programme offered by the institute. The selection and admission to the programme is subject to fulfilling the eligibility criteria.

**4. NATURE OF ENTRANCE TEST BV-M.Tech.-2024**

All candidates desirous of taking admission for First Year of M.TECH. (Engineering) Programme must appear for entrance test **BV-M.Tech.-2024**

- 4.1 The Entrance Test **BV-M.Tech.-2024** for admission to First Year of M.TECH. (Engineering) Programme will be of 100 marks. The examination consists of one question paper set in English medium and will consist of 100 multiple choice questions with four alternatives, with only one correct or most appropriate answer. One Mark will be awarded for each correct answer. It will consist of 100 questions and these questions will be based on the syllabus mentioned in **Annexure I**. The duration of the test is 3 hours. There is no negative marking for the wrong answer chosen or unanswered questions by the candidates.



## 5. ENTRANCE TEST FEE :

- 5.1 Entrance test fee: **Rs 2000 /- (non refundable)**
- 5.2 The entrance test fee shall be paid through payment gateway using internet banking mode or through debit/credit card/UPI. Service charges and other taxes for transaction as applicable by bank has to be paid by the applicant.
- 5.3 The entrance test fee, once paid, will not be refunded under any circumstances. Candidates who remain absent for the entrance test will forfeit their entrance test fee.

**Details regarding general instructions, terms and conditions of the entrance test mode, schedule, entrance test centers, application procedure, Instructions regarding entrance test etc., are available on website. Please visit [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in) for more details.**

## 6. DECLARATION OF RESULT:

The merit list of **BV-M.Tech.-2024** (Based on 100 marks), for First Year of M.Tech.(Engineering) Programme will be declared & notified at the website Please visit [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in) for more details. The combined merit list for all the institutes will be declared. Separate merit list will be prepared for regular category and Foreign/NRI/PIO/OCI/Institutional Quota Merit Category.

Candidate will have to login at the application portal to view their result. It is not possible to send individual invitation for counselling to the candidates. **It shall be the responsibility of the individual candidate to see their own merit number and appear for the counselling at the centre of his/her choice as per schedule will be notified at the website.**

## 7. COUNSELING AND SPOT ADMISSIONS :

After declaration of result / merit list the university will dispatch counselling and on the spot selection invitation letters to candidates in the merit list of **BV-M.Tech.-2024** Candidates who have filled the application form online.

- 7.1 The schedule and venue of counselling and on the spot admission session will be notified at the website.** Please visit [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in) for more details.

**FAILURE TO REPORT FOR COUNSELLING ON THE SCHEDULED DATE AND TIME WILL RESULT IN INSTANTANEOUS CANCELLATION OF A CLAIM OF THE CANDIDATE TO THE SEAT.**

The allocation of the institute will be made based on the preference provided by the candidate while filling the online application form. The candidate must note that appearance for the entrance test and inclusion of name

in the merit list does not necessarily mean that he/she will get admission to the institute & programme. The admission will depend upon the availability of seats to the particular programme and institute at the time of his counselling.

It shall be candidates responsibility to see the result entrance test and confirm their merit no. The candidate should remain present for counselling as per the schedule.

Individual counselling letters are not going to be sent. The candidate should attend counselling & on the spot admissions on their own as per the schedule given. The candidate should bring along with them proof of having appeared for the entrance test such as Admit Card or photo copy of application form / Demand Draft etc.

The candidate will be offered a seat in the institute of their choice and programme as per the combined merit list prepared by Bharati Vidyapeeth (Deemed to be University), Pune for all the colleges and all the programmes. The candidate will be called for counselling as per their merit number and will be offered a seat as per availability of the seat in the particular institute and particular programme.

- The university shall allot the seats by merit and as per availability of vacancy in the branch at the time of counselling. It may be possible that seat in the branch of the choice of the candidate or in any other branch may not be available at the time of counselling of the candidate. The university shall not be responsible for the same.
- The counselling will be held as per the schedule. The counselling schedule notified at **Website : [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in)** Failure to report for counselling on the scheduled date and time may result in instantaneous cancellation of candidate's claim for admission. It shall be candidate's responsibility to see the result of **BV-M.Tech.-2024**
- The candidate should remain present for the counselling and for on the spot admission, if eligible, even though he/she does not receive any intimation letter from the University.
- Only the candidate and one of his parents/guardian will be allowed into the hall where counselling is held. The candidates will be called in the order of their ranking in the merit list and offered the seats to the various programmes available at that point of time. The candidate will be allowed to choose admission to the programme in which seats are available when his / her turn for counselling comes.
- The candidate must note that appearance in the entrance test and inclusion of name in the merit list do not necessarily mean that he/she will get admission to the programme of his/her choice. His/Her admission to a particular programme will depend upon the availability of vacancies for that particular programme at the time of his/her counselling.
- At the time of reporting for the counselling, the candidate is required to produce the documents (original and two sets of photocopies) listed in **Annexure-I** and letter for counselling. If the candidate is admitted to any of the courses, these documents will be retained by the University till he/she completes the course. If the candidate fails to produce all or any of the documents listed in **Annexure I**, he/she will instantaneously forfeit his/her claim for a seat.
- It may be possible that the student may fail to receive the invitation letter due to any reason. They may attend the counselling sessions as per the schedule of counselling on their own, provided they satisfy requisite qualifications for admission and that their name appears in the merit list in the **BV-M.Tech.-2024** The candidates who fail to receive the counselling letter, for whatever reason, must bring some other proof of identity of appearing at **BV-M.Tech.-2024** examination, for permission to appear for the counselling sessions. It will not be possible to make any changes or adjustments in the dates of the counselling sessions.
- The candidate should attend counselling session on his / her own judgment. It may happen that a seat for admission for the programme of his choice may not be available when his / her turn comes up as per the merit in **BV-M.Tech.-2024** results.
- The candidates in the merit list prepared on the basis of marks obtained by the candidates in the **BV-M.Tech.-2024** will be called in as per their ranks for counselling and on the spot admission to the various programme as per schedule notified at **Website : [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in)**
- Admission status and vacancy positions will be uploaded on institutes website daily during counseling period.
- All students and parents are requested to refer university / institutes website for vacancy status during counselling and report accordingly.



- After filling all the seats, waiting list numbers will be allotted to only those candidates who have reported for counselling. Candidates in the waiting list will be called for admission subject to the vacancies developed on the basis of cancellation of admissions by the candidates admitted through the counselling. However vacancies developed because of cancellation of admission by the students, will be made available to the students admitted & who stands next in the merit list.
  - If any candidate finds it impossible to be physically present for the counselling due to unavoidable circumstances, he/she may authorise any other responsible individual to represent him/her at the counselling. This representative must carry with him/her the letter of authorization in the format given in **Annexure IV** as well as all the documents listed in **Annexure I**. If the candidate or his /her representative fails to report for the counselling on the date and the time mentioned in the schedule of counselling at website, his/her claim for admission to any of the branches or programmes will be forfeited. The choice of programme or branch made by the candidate/his/her representative will be final and binding and will not be ordinarily altered later
  - The selected candidate will be required to pay the entire amount of annual tuition fee and other fees on the day of counselling itself, through Bank Draft drawn on any nationalized bank in favour of the **“The Principal, BV(DU), College of Engineering, Pune, India.** In case the candidate fails to remit the entire amount of fees, he/she is likely to lose his/her claim for admission. Refund of fees will be governed by the rules of the University prevailing at that time. Institute / University will accept fee by online/net banking/NEFT/RTGS.
- 7.2 After scrutiny of their Certificates, the candidates are offered provisional admission according to their rank, availability of seats and payment of fee.
- Admissions to M. Tech first year will be confirmed subject to
- i) Payment of fees in full on the day of admission round
  - ii) Eligibility certificate from university

#### 8. FEE STRUCTURE for 2023-2024 only :

| Name Of Programme        | Candidate with GATE Score | Candidate without GATE Score | Sponsored candidates | Foreign/NRI/PIO/OCI Merit Candidates |
|--------------------------|---------------------------|------------------------------|----------------------|--------------------------------------|
| M.Tech.(Chemical)        | Rs.50,000/-               | Rs. 1,00,000/-               | Rs. 1,30,000/-       | US \$ 3800                           |
| M.Tech.(Civil)           | Rs.50,000/-               | Rs. 1,00,000/-               | Rs. 1,30,000/-       | US \$ 3800                           |
| M.Tech(.Computer)        | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |
| M.Tech.(Electronics)     | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |
| M.Tech.(IT)              | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |
| M.Tech.(Electrical)      | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |
| M.Tech .(Mechanical)     | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |
| M.Tech.(Nano Technology) | Rs.50,000/-               | Rs.1,00,000/-                | Rs.1,30,000/-        | US \$ 3800                           |

**Note:-The fees shall be revised upwards @ 5% per year.**

In addition, caution money deposit(Rs.2000),smart card fee (Rs.450),Eligibility fee(Rs.215),stationary fee(Rs.800) has to be paid by through Demand Draft on any nationalized bank in favour of the **“The Principal, BV(DU) College of Engineering, Pune” payable at Pune** on the day of counselling itself. In case the candidate fails to remit the entire amount of fees,he/she is likely to lose his/her claim for admission.

#### **Mode of Payment of Fees shall be as given below**

The fee is to be paid either through online mode or Bank Draft of any Nationalized bank drawn in the name of **“The Principal, BV(DU) College of Engineering, Pune” payable at Pune.”** The details of payment through online mode will be informed.

At the time of admission a candidate has to pay library deposit. This deposit shall be refunded upon completion of the course.

If a candidate fails to confirm admission given to him/her, the same shall stand cancelled and the resultant vacancy will be offered to the next eligible candidate from the list. However, if candidate is unable to report in person, he /she can depute a representative with an authority letter signed by the candidate (**ANNEXURE-IV** appended in this brochure) along with requisite documents under sec.7 above and Demand Draft of fees.

There are a few seats available in the hostel which will be allotted on first come first served basis.

Those who are desirous of getting admission to the hostel will be required to pay the entire amount of rent for the year as well as the mess charges for the entire academic year at the time of admission only. The details of hostel fees will be given in counselling letter. The payment for the hostels should be made by separate Demand Draft.

#### **Remarks:**

- a) On payment of the fees and upload of requisite documents, the provisional admission will be completed, and candidate will be informed accordingly. Fee is accepted in Demand Draft mode on any nationalized bank. University/Institute will accept fees by Online/Net Banking/NEFT/RTGS mode also.
- b) If a candidate fails to confirm admission given to him/her, the same shall stand cancelled and the resultant vacancy will be offered to the next eligible candidate from the list. However, if candidate is unable to report in person, he/she can depute a representative with an authority letter signed by the candidate (appended in this brochure) along with requisite documents under **ANNEXURE-I** and Demand Draft of the fees.
- c) There are few seats available in hostel, which will be allotted on first come first served basis. Those who are desirous of getting admission to the hostel will be required to pay the entire amount of rent for the year as well as mess charges for the entire academic year at the time of admission only. The details of hostel fees will be given in counselling letter. The payment for the hostels should be made by separate Demand Draft.

#### **Hostel facility:**

If you desire to have hostel accommodation, limited hostel accommodation is available on the campus both for boys and girls. The same will be allotted on first come first served basis. The hostel room rent and other charges will have to be paid at the time of admission only. There are different hostels for girls and boys each having different fee at pune campus. The details are given below:

## Hostel Admission : Contact Details 9870204242

**Note:** Hostel fees may be revised for 2024-25 For more details regarding Hostel fee and other facility contact on above telephone numbers. You should bring Demand Draft for the hostel of your choice. Cash or cheque will not be accepted.

### 9. REFUND OF FEES :

The cancellation of admission and refund of fees will be as per the UGC guidelines issued by UGC from time to time.

### 10. CONDUCT AND DISCIPLINE :

If any student is found indulging in anti-national activities, or in activities that run contrary to the letter and spirit of the provisions of Acts and Laws enforced by the Government, or any activity that causes his/her behavior to be contrary to rules of discipline, will be liable to be expelled from the institute forthwith without any notice by the Principal of the institute.

If any of the statements made in application form or any information supplied by the candidate in connection with his/her admission is, at any time, found to be false or incorrect and willful suppression of facts, his/her admission will be cancelled forth with. The fees will be forfeited and he/she may be expelled from the institute by the Principal and prosecuted, if deemed necessary.

Each of the candidates seeking admission in the institute is required to give the following undertaking at the time of admission:-

- A) " I have read all the Rules of Admission for the current year and after fully understanding these rules, I have filled in this application form for admission for the current year.
- B) The information given by me in my application is true to the best of my knowledge and belief.
- C) I have not been debarred from appearing at any examination conducted by any Government constituted or Statuary autonomous examination authority in India.
- D) I fully understand that the Principal of the institute will have right to expel, rusticate me from the institute for any infringement of the Rules of good conduct and discipline in general and particularly the ones referred to above and the rules of good conduct and discipline prescribed by the institute / University and in the undertaking given above."



## 11. MISCELLANEOUS:

- 11.1 The candidates are informed that the medium of instruction, for all programmes is English.
  - 11.2 At the time of seeking admissions, a candidate will be provisionally admitted to Programme at the Institute subject to the production of the Provisional Eligibility Certificate from the University.
  - 11.3 The Institution shall have the right to satisfy about the conduct and character of a candidate by verifying antecedents of a candidate through the appropriate police-authority, before admitting him/her to the institute.
  - 11.4 The Attention of the candidates is particularly invited to the provisions of rules regarding the eligibility of candidates for admission to the **first Year of the M.TECH. (ENGINEERING)** Programme. If at any stage it is found that a candidate is not eligible either for admission to **BV-M.Tech.-2024** or **First Year of the M.TECH. (ENGINEERING)** Programme, his/her candidature and admission even if granted provisionally will be cancelled forthwith.
- Differences of opinion and disputes arising in the interpretation and implementation of the clauses in this Brochure, if any, will be referred to the Vice-Chancellor of the Bharati Vidyapeeth (Deemed to be University), Pune and his decision shall be final and binding on all the concerned.

### Court Jurisdiction

Any legal matters arising out of the entire admission process through Common Entrance Test conducted by Bharati Vidyapeeth (Deemed to be University) , Pune-30 i.e. **BV-M.Tech.-2024** will be in the jurisdiction of courts of Pune, Maharashtra State.





## SYLLABUS FOR ENTRANCE TEST,

## ET (M.TECH.)-2024, FOR M.TECH. CIVIL (WATER RESOURCE ENGINEERING) COURSE

**ENGINEERING MATHEMATICS**

**Linear Algebra** : Determinants, algebra of matrices, systems of linear equations, eigen values and eigen vectors.

**Calculus** : Functions of single variable : Limit, continuity and differentiability, mean-value theorems, theorems of integral calculus; evaluation of definite and improper integrals. Functions of two variables: Limit, continuity, partial derivatives, total derivative and directional derivative, maxima and minima, multiple integrals and their applications, sequences and series, test for convergence, Fourier series.

**Ordinary Differential Equations** : First order equations (linear and nonlinear), higher order linear differential equations with constant coefficients, method of variation of parameters, Cauchy's or Euler's equations, initial and boundary value problems, Laplace transform.

**STRUCTURAL ENGINEERING**

**Structural Analysis** : Statically determinate structure : displacements by energy principles; static and kinematic indeterminacies; analysis of indeterminate structures by flexibility and stiffness methods; slope-deflection and moment-distribution methods; influence lines for determinate and indeterminate structures; approximate analysis of multistorey frames by cantilever and portal frame methods; trusses; two and three hinged arches; analysis of trusses and frames by Matrix method; concepts of plastic analysis of beams and frames.

**Concrete Structure** : Working stress and limit state methods of design; design of reinforced concrete beams, slabs, columns, staircase, building frame, water tanks, bridges, equal leading structure and foundations, detailing of reinforcement, analysis and design of pre-stressed concrete beams.

**Steel Structures** : Analysis and design of tension and compression members, beams and beam-columns, column bases; connections-simple & eccentric, beam and connections, plate and gantry girders and trusses; plastic design of beams and frames.

**GEOTECHNICAL ENGINEERING**

**Soil Mechanics** : Origin of soils; soil classification; three-phase system, fundamental definitions, relationship and inter-relationships; permeability and seepage; effective stress principle: consolidation, compaction; shear strength.

**Foundation Engineering** : Sub-surface investigation-scope, drilling bore holes, sampling, penetrometer tests, plate load test; earth pressure theories, effect of water table, layered soils; stability of slopes-infinite slopes, finite slopes; foundation types-foundation design requirements; shallow foundations; bearing capacity, effect of shape, water table and other factors, stress distribution, settlement analysis in sands and clays; deep foundations-pile types, dynamic and static formulae, load capacity of piles in sands and clays.

**WATER RESOURCES ENGINEERING**

**Fluid Mechanics and Hydraulics** : Hydrostatics applications of Bernoulli equation, Laminar and turbulent flow in pipes, pipe networks; concept of boundary layer and its growth; uniform flow, critical flow and gradually varied flow in channels, specific energy concept, hydraulic jump; forces on immersed bodies; flow measurement in channels; tanks and pipes; dimensional analysis and modelling; velocity triangles and specific speed of pumps and turbines. Applications of Momentum equation, Potential flow, Kinematics of flow.

**Hydrology** : Hydrologic cycle; Rainfall; evaporation infiltration, unit hydrographs, flood estimation, reservoir and channel routing, well hydraulics.

**Irrigation** : Duty, delta, Estimation of evapo-transpiration; crop water requirements; design of lined and unlined canals; waterways; headworks, gravity dams and Ogee spillways. Designs of weirs on permeable foundation, Irrigation methods.

**ENVIRONMENTAL ENGINEERING**

Water Requirements; quality and standards, basic unit processes and operations for water treatment, distribution of water. Sewage and sewerage treatment; Quantity and characteristic of waste water sewerage; primary and secondary treatment of waste water sludge disposal; effluent discharge standards.

**TRANSPORTATION ENGINEERING**

Highway planning; Geometric design of Highways; Testing and specifications of paving materials; Design of flexible and rigid pavements.

**SYLLABUS FOR ENTRANCE TEST,  
ET (M.TECH.)-2024, FOR M.TECH. (COMPUTER) / M.TECH. (I.T.) COURSE**

**Basic Mathematics** : Elements of probability, matrix algebra, numerical methods: interpolation, root finding, differentiation and integration. Discrete Mathematics; Sets, relations, functions, mathematical induction, counting, groups, graphs, partial orders, lattices and Boolean algebra propositional logic.

**Theory of Computation** : Regular and context free languages, finite state machines and pushdown automata, Turing machines and undecidability.

**Computer Hardware** : Logic function, minimization techniques, design of combinational and sequential circuits using gates and flip-flops, design with integrated circuits including ROM and multiplexers, microprocessor architecture; programming, interfacing with memory and I/O devices (modes of data transfer and their implementation, serial and parallel communication interfaces). Detailed knowledge of 8095 microprocessor will be assured.

**Computer Organization** : Number representation and arithmetic, functional organization, machine instructions and addressing modes, ALU, hardwired and microprogrammed control, instruction pipelining, memory organization, input/output.

**Programming and Data Structures** : Structured programming with Pascal/C including recursion; arrays, stacks, strings, queues, lists, trees, sets and graphs; algorithm for tree and graphs traversals, connected components, spanning trees, shortest paths; hashing, sorting and searching; algorithm design and analysis techniques, big 'on' notation, solution of simple recurrence relations.

**Language Processors** : Assemblers, loaders, linkers, macroprocessors, text editors, programming languages; scope rules and parameter passing mechanisms; compilers; lexical analysis, parsing, syntax directed translation, run time environment, machine code generation; interpreters.

**Operating Systems** : Batch, multi-programming and time-sharing systems; processor, memory, device and file management, virtual memory, process scheduling, interprocess communication, process synchronization and concurrency, deadlocks protection.

**Database Systems : File organization techniques**: indexing, B-trees, B-plus trees; relational and network data models; normal forms; query languages, SQL.

**SYLLABUS FOR ENTRANCE TEST,  
ET (M.TECH.)-2024, FOR M.TECH. (CHEMICAL) COURSE**

**Engineering Mathematics** : Determinants & Matrices, system of linear equations, eigenvalues and eigenvectors. Calculus-mean value theorems of integral calculus, partial, total and directional derivatives, maxima and minima.

Sequences and Series, convergence, Fourier series.

Vector calculus : gradient, divergence and curl, line and surface integrals, Green, Gauss and Stokes theorems.

**Ordinary differential equations** : First order equations, linear and nonlinear equations, higher order linear equations with constant coefficients, initial and boundary value problems, Laplace transforms.

**Complex analysis:** Complex numbers, polar form of complex numbers, Powers and roots, limit, derivative, analytical functions.

**Probability and Statistics :** Concept of probability, means and variance, linear regression analysis.

**Process Calculations and Thermodynamics :** Laws of conservation of mass and energy; use of tie components; recycle, bypass and purge calculations; degrees of freedom.

First and Second laws of thermodynamics and their applications; equations of state and thermodynamic properties of real systems; phase equilibria; fugacity, excess properties and correlations of activity coefficients; chemical reaction equilibria.

**Fluid Mechanics and Mechanical Operations :** Fluid statics, Newtonian and non-Newtonian fluids, Macroscopic energy balance, Bernoulli equation, dimensional analysis, continuity equation, flow through pipeline systems, flow-meters, pumps and compressors, packed and fluidized beds, elementary boundary layer theory, size reduction and size separation; free and hindered settling; centrifuges and cyclones; thickening and classification, filtration; mixing and agitation; conveying of solids.

**Heat Transfer :** Conduction, convection and radiation, heat transfer coefficients, steady and unsteady heat conduction, Boiling, condensation and evaporation; types of heat exchangers and evaporators and their design.

**Mass Transfer :** Fick's law, mass transfer coefficients, Film, penetration and surface renewal theories; momentum, heat and mass transfer analogies; stagewise and continuous contacting and stage efficiencies; design and operation of equipment for distillation, absorption, leaching, liquid-liquid extraction, crystallization, drying, humidification, dehumidification and adsorption.

**Chemical Reaction Engineering :** Theories of reaction rates; Kinetics of homogeneous reactions, interpretation of kinetic data, single and multiple reactions in ideal reactors, non-ideal reactors; non-isothermal reactors, kinetics of heterogeneous catalytic reactions; diffusion effects in catalysis.

**Instrumentation and Process Control :** Measurement of process variables; dynamics of simple systems such as CSTRs, heat exchangers etc.; transfer functions and responses of simple systems, process reaction curve, controller modes (P, PI, and PID); control valves; analysis of closed loop systems including stability, frequency response (including Bode plots) and controller tuning.

**Plant Design and Economics :** Design of chemical engineering equipment; principles of process economics and cost estimation.

**Chemical Technology :** Inorganic chemical industries; sulfuric acid, NaOH, fertilizers; natural products industries (Pulp and Paper, Sugar, Oil, and Fats); petroleum refining and petrochemicals; polymerization industries; polyethylene, polypropylene and synthetic fibres.

### SYLLABUS FOR ENTRANCE TEST, ET (M.TECH.) - 2024, FOR M.TECH. (ELECTRICAL - POWER SYSTEMS) COURSE

**Electrical Circuits & fields :** Network graph, KCL, KVL node/cut set, mesh/tie set analysis, transient response of d.c. & a.c. network Sinusoidal steady state analysis, resonances in Electrical Circuits, concept of ideal voltage and current source, Network theorems, driving points, impedance and transfer function of two port network, elementary concept of filters. Three phase circuit, Fourier series and its application. Gauss theorem, electric field intensity & potential due to points. Line plane & spherical charge distribution, dielectrics, capacitance calculations for simple configuration, Ampere's & Biot-Savart's law, inductance calculation for simple configuration.

**Electrical Machines :** Single phase transformers-equivalent circuits, phasor diagram, tests, regulation & efficiency, Three phase transformers - connections, parallel operation, auto-transformers, & three winding transformers, principle of energy Conversion, winding of rotating machines, D.C. generators & Motor characteristics, starting & speed controls, Armature reactions & commutations, Three phase induction motors-performance characteristics, Single phase induction motors, synchronous generator performance, regulation, parallel operations, synchronous motor starting characteristics applications, synchronous condensers, fractional horse power motors, permanent magnet & stepper motors.

**Power Systems :** Electric power generators-thermal, hydro, nuclear, transmission line parameters, steady state performance of overhead Transmission line & cable & surge propagation, distribution system, insulators, bundle conductors, corona & radio interference effect, per unit quantities, bus admittance, impedance matrices, load flow, voltage control & power factor Corrections, economic operations, symmetrical components, analysis of symmetrical & unsymmetrical faults, Principles of over current, differential & distance protection, concept of solid state relays & digital protection. Circuit breakers, concept of system stability-swing curves & equal area criterion, basic concept of HVDC Transmission.

**Control systems :** Principal of feedback, transfer function, block diagrams, steady state errors, stability-Routh & Nyquist criteria, Bode plots, compensation, root loci, elementary state variable formulation, state transition matrix & response for Linear time invariance system.

**Electrical & Electronic Measurement :** Bridge & potentiometers, PMMC, moving iron, dynamometer & induction type instruments, measurement of voltage, Current, power, energy & power factor, instrument transformers, digital voltmeter & multimeters, phase, time & Frequency measurement, Q-meter, oscilloscope, potentiometric recorders, error analysis.

**Analog & digital electronics :** Characteristics of diode, BJT, FET, SCR, amplifier biasing, equivalent circuit, Frequency response, oscillator & feedback amplifier, operational amplifier characteristics, & application, simple active filters, VCO's & timer, combinational & sequential logic circuits, multiplexer, Schmitt's trigger, multivibrators, sample & hold circuits, A/D & D/A converters, micro-processors & their applications.

**Power electronics & Electric Drives :** Semiconductor power device-diodes, transistors, thyristors, triac's, GTO's MOSFETs, IGBTs static characteristics Principle of operations, triggering circuits, phase control rectifiers, bridge converters-fully controlled & half controlled Principle of choppers & inverters, basic concept of adjustable speed dc & ac drives.

### SYLLABUS FOR ENTRANCE TEST,

#### ET (M.TECH) - 2024, FOR M.TECH. (ELECTRONICS - VLSI DESIGN) COURSE

**Network :** Network graphs, matrices associated with graphs; incidence, fundamental cut set, fundamental circuit matrices, Solution method: nodal & mesh analysis, Network theorem: super position, thevenin & Norton's maximum power Transfer, wye Delta transformation, steady state sinusoidal analysis using phasors. linear constant coefficient differential equations; time domain analysis of simple RLC circuit, Solution of network equation using Laplace transform; frequency domain analysis of simple RLC circuit; 2-port network parameter; driving point & transfer function, state Equation of network.

**Electronics Drives :** Energy bands in silicon, intrinsic & extrinsic silicon; carrier transport in silicon; diffusion current; drift current mobility; resistivity, generation & recombination of carriers, p-n junction diode, Zener diode, tunnel diode, BJT, JFET, MOS capacitor, MOSFET, LED, p-i-n & avalanche photo diode, LEDs, device technology, integrated circuit fabrication process, oxidation, diffusion, ion implantation, photolithography, n-tub, p-tub, & twin tub CMOS process.

**Analog circuits :** Analog circuits, (large & small-signals) of diodes, BJTs, BJT, JFETs, MOSFETs, simple diode circuit, clipping, clamping, rectifier, biasing & bias stability of transistors & FET amplifier, single & multistage, differential, operational, Feedback & power, analysis of amplifier, frequency response amplifier, simple op-amp circuits, filters, sinusoidal Oscillators, criterion for oscillation, single transistor & op-amp configuration. Function generators & wave shaping circuits, power supplies.

**Digital circuits :** Boolean algebra, minimisation of Boolean function, logic gates digital families (DTL, TTL, ECL, MOS, CMOS), Combinational circuits, arithmetic circuits, code converters, multiplexer & decoders, sequential circuits, latches and flip flops, counters and shift registers, sample & hold circuits, ADCs & DACs, semiconductor memories. L/C interfacing.

**Signals & systems :** Definition & properties of Laplace transform, continuous-time & discrete time Fourier transform, Z-transform, Sampling theorem, linear time invariant (LTI) system, definitions & properties, causality & stability, impulse response, Convolution integral, Zero frequency response, group delay, phase delay, signal transmission through LTI systems.



Random signal & noise, probability, Random variable, probability density function, autocorrelation, power spectral density.

**Controls systems** : Basic control system component, basic diagrammatic description, open loop & closed loop system, stability analysis of these system, signal flow graphs, their use in determining transfer function of system, transition & steady state analysis of (LTI) control system, & frequency response, tools & techniques of (LTI) control system, root loci, Routh-Hurwitz criteria, Bode & Nyquist plots, control system compensators, elements of lead & lag compensation, elements of proportional integrative derivative (PID) control, state variable representation & solution of state equation of (LTI) control system.

**Communications** : Analog Communication systems, amplitude & angle modulation & demodulation system, spectral analysis of these operations, superheterodyne receiver, elements of hardware, realisation of analog Communication system, signal to noise ratio (SNR), calculation for amplitude modulation (AM), frequency modulation, (FM) for low noise condition, digital Communication systems, pulse code modulation, differential pulse code modulation (DPCM), delta modulation, Digital modulation scheme amplitude, phase & frequency shift keying, (ASK, PSK, FSK), matched filter receivers, bandwidth consideration & probability of error calculation for these scheme.

**Electromagnetics** : Elements of vector calculus, divergence & curls, Gauss & Stokes theorem, Maxwell's equations, differential & integral forms, wave equations, Poynting vector, plane waves, propagation through various media, reflection & refraction, phase & group velocity, skin depth, transmission lines, characteristic impedance, impedance transformation, Smith chart, impedance matching, pulse excitation, waveguides, modes in rectangular waveguides boundary conditions, cut-off frequencies, dispersion relation, antennas, dipole antennas, radiation pattern, reciprocity theorem, antenna gains.

## SYLLABUS FOR ENTRANCE TEST, ET (M.TECH) - 2024, FOR M.TECH. (MECHANICAL-CAD/CAM) COURSE

### ENGINEERING MATHEMATICS

**Linear Algebra** : Algebra of matrices, system of linear equation, eigen value & eigen vectors.

**Calculus** : Taylor series, Fourier series, partial derivatives, total derivatives, definite & improper integrals, multiple integrals.

**Vector Calculus** : Gradient, divergence & curls, line & surface integrals, Green's, Gauss & Stokes theorems

**Differential equations** : Linear ODEs, first order non-Linear ODEs, initial & boundary value problems, Laplace transformations, PDE's Laplace Wave & diffusion equations

**Numerical Methodes** : Solution system of linear equations, interpolation, Numerical integrations, Newton-Raphson's method, Runge-Kutta methods.

**Probability & statistics** : Gaussian, Weibull distribution & their properties, methods of least squares, regression analysis, analysis of Variance.

### APPLIED MECHANICS & DESIGNS :

**Engineering Mechanics** : Equivalence force system, free body concept, equation of equilibrium, truss & frames, virtual work & minimum potential energy, kinematics & dynamics of particles & rigid body, impulse & momentum (linear & angular), Energy methods, central force motion.

**Strength of Materials** : Stress & strain, Stress-strain relationship & Elastic constant, Mohr's circle for plane stress & strain, shear force & bending moment diagrams, bending & shear stress, deflection of beam, torsion of circular shafts, thin & thick cylinders, Euler's theory of columns, strain energy methods, thermal stress.

**Theory of Machines** : Displacement, velocity & acceleration, analysis of plane mechanisms, dynamic analysis, slider crank mechanism Planer cams & followers, gear tooth profiles, kinematic of gears, governors & flywheels, balancing of reciprocating & rotating masses.

**Vibrations** : Free & forced vibrations of single degree freedom systems, effect of damping, vibration isolation, resonance, Critical speed of rotors.

**Design & machine Elements** : Design of static & dynamics loading, failure theories, fatigue strength design of bolted, riveted, welded joints; Design of shafts & keys, Design of spur gears, rolling & sliding contact bearings, brakes & clutches, belt, rope & chain drives.

## **MANUFACTURING & INDUSTRIAL ENGINEERING**

**Engineering Materials** : Structure & properties of Engineering Materials & their applications, heat treatments.

**Metal Casting** : Casting process, (extendable & non extendable)-pattern, moulds, cores, heating & pouring, solidification and cooling Gating Design, Design considerations, defects.

**Forming process** : Stress-strain diagrams for ductile & brittle materials, plastic deformation & yield criteria, fundamentals of hot & cold working process, bulk metal forming processes, (forming, rolling, extrusion, drawing), sheet metal working process, (punching, blanking, deep drawing, coining, spinning, load estimation using homogeneous deformation process, Defects), processing of powder metals, compaction, sintering, secondary & finishing operations, forming & shaping of Plastic extrusion, injection moulding.

**Joining process** : Physics of welding, fusion & non fusion welding process, brazing & soldering, adhesive bonding, design consideration in welding, weld quality defects

**Machining & machine tool operations** : Mechanics of Machining, single & multiple cutting, tool, tool geometry & materials, tool life & wears Cutting fluids. machinability non traditional machining process.

**Metrology & inspection** : Limit, fits & tolerance, linear & angular measurements, comparators, gauge design, interferometry, form & finish measurements, measurements of screw threads, alignment, testing methods.

**Tool Engineering** : Principle of work holding, design of jigs & fixtures.

Computer Integrating Manufacturing : Basic concept of CAD/CAM & their integration tools.

**Manufacturing Analysis** : Part print analysis in Manufacturing & assembly, time & cost analysis.

Work-study : Method study, work measurement, time study, work sampling, job evaluation, merit rating.

**Production planning & control** : Forecasting Models, aggregate production planning, master scheduling, material requirements planning.

**Inventory control** : Deterministic & probabilistic models, safety stock Inventory control systems.

**Operational research** : Linear programming, simplex & duplex method, transportations, assignment, network flow models, Simple queuing models, PERT & CPM.

## **SYLLABUS FOR ENTRANCE TEST, ET (M.TECH. NANOTECHNOLOGY)-2024 COURSE**

**Linear Algebra** : Algebra of matrices, system of linear equation, eigen value & eigen vectors.

**Calculus** : Taylor series, Fourier series, partial derivatives, total derivatives, definite & improper integrals, multiple integrals.

**Vector Calculus** : Gradient, divergence & curls, line & surface integrals, Green's, Gauss & Stokes theorems

**Differential equations** : Linear ODEs, first order non-Linear ODEs, initial & boundary value problems, Laplace transformations, PDE's Laplace Wave & diffusion equations

**Numerical Methods** : Solution system of linear equations, interpolation, Numerical integrations, Newton-Raphson's method, Runge-Kutta methods.

**Probability & Statistics** : Gaussian, Weibull distribution & their properties, methods of least squares, regression analysis, analysis of Variance.

**Physics** : Motion, Newton's Laws, Energy and Conservation Laws, Physics of Matter, Temperature and Heat, Waves, Sound, and Ultrasound, Electricity Electromagnetism and EM Waves, Atomic Physics

**Chemistry:** Physical quantities and their measurement, States of matter, Atomic structure, Classification of elements and periodicity in properties, Chemical bonding, Equilibrium in physical and chemical processes, Ionic equilibrium,

**Biology:** Cell, Structure and Function, Genetics and Evolution, Structure and Function – Plants and Animals, Reproduction, Growth and Movement in Plants and Animals, Ecology and Environment

**Programming in C :** Data types, Control Flow Statements, Logical Statement, Pointers, Arrays, Structures & File Handling.

**Engineering Mechanics :** Equivalent force system, free body concept, equation of equilibrium, truss & frames, virtual work & minimum potential energy, kinematics & dynamics of particles & rigid body, impulse & momentum (linear & angular), Energy methods, central force motion.

**Strength of Materials :** Stress & strain, Stress-strain relationship & Elastic constant, Mohr's circle for plane stress & strain, shear force & bending moment diagrams, bending & shear stress, deflection of beam, torsion of circular shafts, thin & thick cylinders, Euler's theory of columns, strain energy methods, thermal stress.

**Material Science :** Atomic Structure, Interatomic Bonding and Structure of Crystalline, Solids, Imperfections in Solids, Mechanical Properties of Metals, Diffusion, Dislocations and Strengthening Mechanisms, Failure.

**Applications and Processing of Materials :** Metals and Alloys, Ceramics and Polymers, Composites, Corrosion and Degradation of Materials, Electrical Properties, Thermal Properties, Magnetic Properties, Optical Properties

**Metrology & Inspection :** Limit, Fits & Tolerances, Linear & Angular Measurements, Comparators, Gauge design, Interferometry, form & Finish Measurements.





## LIST OF DOCUMENTS REQUIRED WHILE REPORTING FOR COUNSELLING

At the time of counselling, you are required to produce the following documents in original, failure to do so will result in instantaneous cancellation of your claim for admission. You are also required to submit two self attested photocopies of each of these documents.

- i) For a Proof of date of Birth : SSC Certificate or School/College Leaving Certificate or Certificate of Domicile/Nationality Certificate.
- ii) Statement of marks of final year B.E./B.Tech examinations.
- iii) Statement of marks of GATE Examination.
- iv) Gap Certificate (for students who joined a course after 12th).
- v) Medical fitness certificate
- vi) Statement of marks of 10 + 2 examination
- vii) Migration Certificate (for students who joined a course after 12th).
- viii) Certificate from the Dean / Principal of the College of Engineering the candidate stating that the College is recognized by the A.I.C.T.E.
- ix) Caste Certificate (For SC/ST candidates only)  
Caste validity certificate issued by competent authority. (for SC/ST candidates only)
- x) Transference Certificate (Leaving Certificate) from the Institution in which you had studied last.
- xi) Candidates under sponsored category or those in service are required to submit no objection certificate (As per format given in Annexure V) from the highest authority, stating that he/she shall be made free whenever required for attending lectures and practicals.
- xii) Six recent passport-size photographs with your name written on backside.
- xiii) The amount of Tuition fees, other fees and Hostel fees in case you are admitted to Hostel.
- xiv) An affidavit in the format given in Annexure III signed by you and countersigned by your parent/guardian in the presence of Notary Public on stamp paper.





## Our Place Students





## Our Place Students



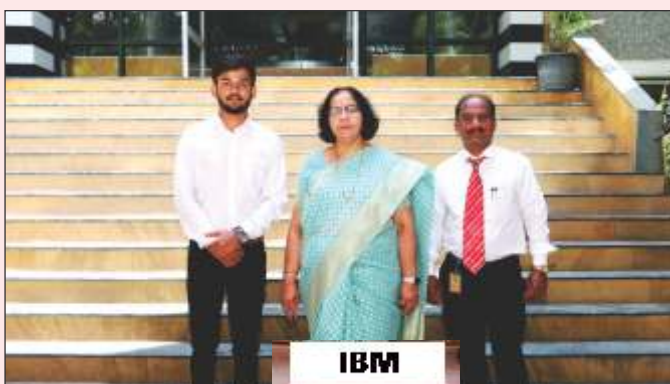


## Our Place Students





## Our Place Students





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## Placement & Recruiters

### Training & Placement Department

- MoU with the Prestigious Tata Consultancy Services for Prominent Recruitment Drive exclusively for BVDUCOEP students has initiated significant improvement in Placements in large numbers.
- MoU with Zensar Technologies for ESD program under CSR and Campus placement is notable achievement for the Students.
- Barclays Youth Employability Training Program under CSR helped students to expose to the new dimensions of Corporate Trainings and NASSCOM organization.

### Objectives

- To organize campus interviews for final year students with industries and business houses of repute from all over India.
- To prepare students to face campus interviews by arranging training in Aptitude tests, group discussions, preparing for Technical and HR interviews through professional trainers.
- To promote career counselling by organizing guidance lectures by senior corporate personnel.

- Maintaining regular interaction with the industry through Seminars, Guest Lectures, Conferences, and Corporate Meets.
- Providing requisite training to students in the area of Personality Development and Communication Skills.

### T & P Dept. Facilities: -

- Auditorium and Seminar Hall with well-equipped audio multimedia computers and LCD Projection facilities and have a sitting capacity of 200 for pre-placement presentations.
- Halls for conducting written tests and Group discussions.
- Dedicated interview cabins for conducting interviews.
- Computer Services Center to conduct online exams.
- Accommodation in the institute guest with Boarding & Lodging facilities on Demand.
- Internet, Fax, Phone, Printing Facilities for the visiting team.

### Placement Record (2021-22 to 2023-24)

|                               | 2021-22 | 2022-23 | 2023-24 <sup>#</sup> |
|-------------------------------|---------|---------|----------------------|
| Number of Companies Visited   | 142     | 140     | 75                   |
| Percentage of Students Placed | 88.58%  | 90%     | 80%                  |
| *Maximum Salary Offered.      | 34 LPA  | 27 LPA  | 19 LPA               |
| *Average Salary offered.      | 7.5 LPA | 7.8 LPA | 6 LPA                |

Note – \*Salary indicated is per annum.

# Placement Record 11th January 2024

## Our Recruiters



Students Placed in TCS 2018-19



Students Placed in Cybage 2017-18



Students Placed in LTI 2017-18



Students Placed in TCS 2016-17



Students Placed in TCS 2015-16



Students Placed in TCS 2014-15

**DECLARATION**

I, \_\_\_\_\_ son/daughter of

\_\_\_\_\_ hereby solemnly affirm that the following statements made by me are true to the best of my knowledge and belief,

- A) I am citizen of India/ I am citizen of..... (Name of the country)
- B) I have studied B.E./B.Tech and have passed the qualifying examination.
- C) I have studied and understood the rules governing counselling, admission procedure, fee structure and agree to abide by these rules.
- D) If admitted to Bharati Vidyapeeth (Deemed to be University), Pune, India College of Engineering, Pune, I will abide by all its rules and regulations, especially those regarding discipline, attendance, dress code, examinations and payment of fees. I understand that failure to comply with the rules and regulations will invite an appropriate disciplinary action from the institutional authorities.
- E) I will not involve myself in any act of ragging during the programme of my education in this University. I understand that involvement in ragging would result into cancellation of my admission to the programme.

**Name of the candidate :** \_\_\_\_\_

**Date :** \_\_\_\_\_

**Place :** \_\_\_\_\_

**Signature of the candidate**

I, \_\_\_\_\_  
the father/mother/guardian of \_\_\_\_\_, an applicant for admission to M.Tech. programme at Bharati Vidyapeeth (Deemed to be University), Pune, India hereby solemnly affirm that all the above statements made by son/daughter/ward are true to the best of my knowledge and belief. I will be responsible for the payment of his/her fees on time and for his/her conduct.

**Name of the parent/guardian :** \_\_\_\_\_

**Relationship to candidate :** \_\_\_\_\_

**Date :** \_\_\_\_\_

**Address with Phone No.**

**Signature of the Parent/Guardian**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





**ANNEXURE IV****AUTHORISATION FOR REPRESENTATIVE**

I, ....., son /daughter of ....., being unable to attend the counselling session for admission to the M. Tech. courses in August/September 2024, hereby authorise ..... son/daughter of ....., whose photograph is affixed below and who will sign as shown below, to represent me at the counselling and on-the-spot-admission. I hereby declare that the choice of course or branch by this authorised representative will be irrevocable and that it will be final and binding on me. This authorised representative will present all the necessary documents, pay the appropriate fees and complete all the necessary formalities on my behalf.

Name of the candidate : \_\_\_\_\_  
(in Capital letters)

Seat No. (**BV-M.TECH.-2024** Examination): \_\_\_\_\_

Place : \_\_\_\_\_

Date : \_\_\_\_\_

Reason for Absence : \_\_\_\_\_

**Specimen signature of the Representative**

A recent passport size photograph of the representative should be affixed here.

**Signature of the candidate**

A recent passport size photograph of the candidate should be affixed here.

**CERTIFICATE**

(To be issued by the sponsor on Letter head)

This is to certify that Shri. / Smt. \_\_\_\_\_ is working in this organization / Institution as \_\_\_\_\_ and he / she is being sponsored to seek admission to two years M. Tech. Degree programme in Bharati Vidyapeeth (Deemed to be University), Pune, India institute of Engineering, Pune. If he / she is admitted to the said programme, the candidate will be completely relieved from his / her duty to attend classes and further state that he / she will not be withdrawn midway till the completion of his/her programme. The candidate will be fully under the administrative control of the Bharati Vidyapeeth (Deemed to be University), Pune, India College of Engineering, Pune during the period of the programme. Candidate has been advised to maintain norms of the institute regarding lectures and practicals.

**Date :**

**Place :**

**Signature (Head of the Trust / Appointing Authority)**

**Seal**

## UNDERTAKING

On my admission to M. Tech. (\_\_\_\_\_) in Bharati Vidyapeeth (Deemed to be University), Pune, India College of Engineering, Pune 411043.

I \_\_\_\_\_ (Merit No. \_\_\_\_\_) hereby confirm that I will be abiding by all rules, and regulations and instructions issued by the Principal, HOD or any higher authority. I fully understand that with my admission in M. Tech. (\_\_\_\_\_), I am required to attend 100% Practical and at least 75 % theory classes, and be available for any other schedule activity. I will be a fulltime student of their institute during the programme durations. Any shortfall in my attendance may lead towards detention of my term and prohibiting me from appearing in the examinations. In such case I will not have any objection for the same.

Further, being a Post Graduate student I will willingly take teaching workload for undergraduate students. I also understand that any failure on my part to abide with the above mentioned conditions, my admission can be cancelled. In such case, there will not be any complaint for me.

**Place:**

**Date:**

**Student Name:**

To,

The Principal,

B.V.D.U.C.O.E., Pune 43

## IMPORTANT NOTICE

The students and the parents will have to submit the printouts of antiragging undertaking submitted online on the following websites

**website 1: [www.antiragging.in](http://www.antiragging.in)**

**2: [www.amanmovement.org](http://www.amanmovement.org)**

This has to be submitted immediately after the conformation of the admission.

**Note :**

As per the directions of Hon'ble Supreme Court of India Order No. SLP(C) No. 24295/2004 and SLP No. 143656/2005, WP (C) No. 173/2006 and SLP(C) No. 24296-24299/2004 all the students are hereby informed the following.

"If any incidents of ragging comes to the notice of the authority, the concerned students shall be given liberty to explain and if his explanation is not found satisfactory the authority would expel him from the institution."

All the students should note the above directives from the Supreme Court.

Registrar  
Bharati Vidyapeeth  
(Deemed to be University),  
Pune, India



# Bharati Vidyapeeth, Pune

Bharati Vidyapeeth Bhavan, Lal Bahadur Shastri Marg, Pune - 411 030.

Phone : (020) 24325701, 24322279 Fax : (020) 24339121



**Dr. PATANGRAO KADAM** M.A., LL.B., Ph.D.

● Founder-Chancellor, Bharati Vidyapeeth & Bharati Vidyapeeth (Deemed to be University), Pune

## AT A GLANCE

### EDUCATIONAL CAMPUSES :

● Pune ● Navi Mumbai ● Navi Delhi ● Panchgani (Satara) ● Sangli ● Karad ● Kolhapur ● Solapur ● Jawhar ● Jat

### BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY)

★ Accredited with 'A+' Grade (2017) by NAAC ★ ★ **Category-I** University Status by UGC ★

★ 'A' Grade University Status by MHRD, Govt. of India ★ ★ NIRF Ranking - **76** ★

● Medical College, Pune ● Dental College & Hospital, Pune ● College of Ayurved, Pune ● Homoeopathic Medical College, Pune ● College of Nursing, Pune ● Yashwantrao Mohite College of Arts, Science and Commerce, Pune ● New Law College, Pune ● Social Sciences Centre (M.S.W.), Pune ● Yashwantrao Chavan Institute of Social Science Studies & Research, Pune ● Research and Development Centre in Pharmaceutical Sciences & Applied Chemistry, Pune ● College of Physical Education, Pune ● Institute of Environment Education & Research, Pune ● College of Engineering, Pune ● Poona College of Pharmacy, Pune ● Institute of Management & Entrepreneurship Development, Pune. ● Rajiv Gandhi Institute of Information Technology & Bio-Technology, Pune ● Interactive Research School for Health Affairs, Pune. ● Medical College & Hospital, Sangli. ● Dental College & Hospital, Navi Mumbai. ● Institute of Management & Research, New Delhi; ● College of Architecture, Pune; ● Institute of Hotel Management & Catering Technology, Pune; ● Yashwantrao Mohite Institute of Management, Karad; ● Institute of Management, Kolhapur; ● Institute of Management & Rural Development Administration, Sangli. ● Abhijit Kadam Institute of Management and Social Sciences, Solapur. ● Dental College & Hospital, Sangli ● College of Nursing, Sangli ● College of Nursing, Navi Mumbai.

### FACULTIES / DISCIPLINES :

● Arts ● Science ● Commerce ● Engineering ● Medicine ● Dentistry ● Management ● Pharmaceutical Science ● Ayurved ● Homoeopathic ● Nursing ● Hotel Management ● Law ● Social Sciences ● Social Work ● Architecture ● Environmental Sciences ● Physical Education ● Kala (Art) ● Agriculture ● Biotechnology

### INSTITUTE BRANCHES :

● Research Institutes - 3 ● Colleges (including proposed 2) : 50 ● Technical Institutes : 8 ● Junior Colleges : 15 ● Primary Schools and High Schools (Marathi) : 40 ● Pre-Primary Schools and Primary Schools (English) : 20 ● Balvikas Mandir : 4 ● Public School : 1 ● Adivasi Vikas Ashram Shala : 1 ● I.T.I.(Girls) : 1 ● Other Sections : 17

### ASSOCIATE INSTITUTIONS :

● Bharati Vidyapeeth English-Maths Exam Department ● Bharati Vidyapeeth's Bharati Printing Press ● Bharati Sahakari Bank Ltd. ● Bharati Madhyawarti Sahakari Grahak Bhandar Ltd. ● Sonhira Sahakari Sakhar Karkhana Ltd., Wangi, Kadegaon, Dist. Sangli ● Sagarshwar Sahakari Soot Girni Ltd., Kadegaon, Dist. Sangli ● Krishna Verala Sahakari Soot Girni Ltd., Kundal-Palus, ● Sou. Vijaymala Patangrao Kadam Mahila Auodyogik Sahakari Santha, Kadegaon, Dist. Sangli ● Mahatma Gandhi Hospital & Research Centre ● Bharati Vidyapeeth Medical Foundation ● Bharati Hospital & Research Centre ● Eye Bank ● Mobile Health Care Unit & Ambulance ● Foundation for Rural Development ● Bharati Vidyapeeth Krida Pratishthan ● Bharati Vidyapeeth Kala Academy ● Sonhira Milk Producers and Allied Agro Co-op. Soc. Ltd., Kadegaon ● Sonhira Co-op. Poultry Society Ltd., Kadegaon, Dist. Sangli



**Bharati Vidyapeeth**  
(Deemed to be University)  
Pune, India.

Bharati Vidyapeeth Bhavan, Lal Bahadur Shastri Marg, Pune - 411 030.

Phone No. : 020 24407131/132

Website : [www.bvuniversity.edu.in](http://www.bvuniversity.edu.in)

E-Mail : [cet@bharatividyaapeeth.edu](mailto:cet@bharatividyaapeeth.edu) / [admissions@bvucoep.edu.in](mailto:admissions@bvucoep.edu.in)