

# MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY

(Formerly Madan Mohan Malaviya Engineering College, Gorakhpur, Estd. 1962) (U.P. Govt. Technical University)



# Members of University Admission Cell-2025 (Postgraduate Programmes)

S.No.	Name	Designation	Email
Ťa	Prof. S. P. Singh	Chairman	ch_admin@mmmut.ac.in
2.	Prof. Jecoot Singh	Dean PGS and coordinator	co_pg_admin@mmmut.ac.in
3.	Dr. Prateek Khare	Associate Dean PGS	pkch@mmmut.ac.in
4.	Dr. Birender Kumar Sharma	Member	bkscs@mmmut.ac.in
5	Dr. Vijay Kumar Sharma	Member	vksece@mmmut.ac.in
6	Dr. Sneha Gupta	Member	sgce@mmmut.ac.in





VIC	E CHANCELLOR MESSAGE	2
1.	ABOUT THE UNIVERSITY	
	1.1 Madan Mohan Malaviya University of Technology, Gorakhpur	3
	1.2 Post Graduate Programmes offered by the University	4
	1.3 Highlights	4
2.	ADMISSION TO M.TECH. PROGRAMMES	Ę
	<ul> <li>2.1 Mode of Admission</li> <li>2.2 Details of M.Tech. Programmes with Intake and Seat Matrix</li> </ul>	5
	2.3 Important Instructions	6
	2.4 Eligibility for M. Tech. Progamme	8
	2.5 Test Paper Code of CUET(PG)-2025 for admission to M.Tech. Programmes	10
	2.6 Scholarships/Financial Assistance	10
	2.7 Fees Details	10
<b>3.</b>	UNIVERSITY RESERVATION CRITERIA	
	3.1 Reservation	10
	<ul><li>3.2 Medical Standards</li><li>3.3 Category Definitions</li></ul>	12 12
4	• •	12
4.	REGISTRATION AND COUNSELLING GUIDELINES FOR M.TECH. PROGRAMMES 4.1 Admission in M.Tech. through GATE/CUET(PG) 2025	14
	4.1 Admission in M. Tech. through GATE/COET(FG) 2023 4.2 Admission in M.Tech. programmes through MET-2025	17
5.	DEPARTMENTS OFFERING M.TECH. PROGRAMMES	1,
3.	5.1 Department of Civil Engineering	19
	5.2 Department of Electrical Engineering	22
	5.3 Department of Mechanical Engineering	24
	5.4 Department of Electronics & Communication Engineering	26
	5.5 Department of Computer Science and Engineering	30
	5.6 Department of Chemical Engineering	34
_	5.7 Department of Information Technology and Computer Application	36
6.	CENTRAL FACILITIES  (1. Information Technology Programs Centra (ITPC)	40
	<ul><li>6.1 Information Technology Resources Centre (ITRC)</li><li>6.2 Central Library</li></ul>	40 40
	6.3 Lecture Hall Complex	42
	6.4 Multipurpose Hall (MPH)	43
	6.5 University Health Centre	43
	6.6 Guest House	45
	6.7 Canteen and Coffee House	45
	<ul><li>6.8 Bank, Post Office and ATM</li><li>6.9 Transport Facilities</li></ul>	45 46
7	TRAINING AND PLACEMENT CELL	
7.		46
8.	COUNCIL OF STUDENT ACTIVITIES	48
9.	HOSTEL FACILITY	49
10.	CAMPUS LIFE AT MMMUT	50
	APPENDIX-A: CERTIFICATE FORMAT	52
	APPENDIX-B: UNDERTAKING BY CANDIDATE	63
	APPENDIX-C: SYLLABUS FOR MALAVIYA ENTRANCE TEST (MET)-2025	64
	PROGRAMMES OFFERED IN ACADEMIC SESSION 2025-26 AT A GLANCE	72







am delighted to welcome you to the postgraduate programs at our university for the academic session 2025-2026. Madan Mohan Malaviya University of Technology Gorakhpur (erstwhile Madan Mohan Malaviya Engineering College Gorakhpur) has a 63-year-old legacy of excellence in education and

research. The University has been accredited with the "A" Grade by the National Assessment and Accreditation Council (NAAC). Since its inception, the University has been delivering quality education and great emphasis is laid on a holistic, relevant and a professional approach to education which is in tandem with the industry requirements. The comprehensive curricula of our university have been designed to accommodate the emerging challenges in the field of science, technology, engineering, and mathematics (STEM).

The university currently offers M.Tech program in twelve specializations in addition to MCA, MBA and three M.Sc programs. M.Tech Chemical Engineering has been introduced in this academic session to further strengthen its commitment for promotion of higher education and research in diverse areas. Similarly, M.Tech (VLSI) and M.Tech (Communication Systems) has been restructured keeping in view the National Policy on Electronics (NPE- 2019). All the post graduate programs have been designed to promote emerging domains of knowledge along with traditional programmes and courses. The University encourages creativity, innovation and entrepreneurship among students and faculty. The University has signed several MOUs with various academic and research institution at national and international level to promote research related activities. The University has also made significant research contributions at both national and international levels, through quality research.

In addition to our strong academic programs, we also offer a vibrant campus life to enrich the extracurricular and co-curricular activities through student clubs and societies. University has recently taken several significant steps to create new research facilities and infrastructure for the overall promotion of research and innovation.

I am sure a great future awaits you and becoming a part of MMMUT family will help to shape your academic future through skills, friendship, and everlasting bonds. You will learn life skills that will take you far in the journey of life. I hope that this admission brochure shall provide all the needful information about admission procedures, and other related academic activities. Our community of faculty, staff and students look forward to welcoming you onboard at the Madan Mohan Malaviya University of Technology Gorakhpur.

(**Prof. J. P. Saini**)
Vice Chancellor



## 1 ABOUT THE UNIVERSITY

#### 1.1 MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR

Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur, was established in the year 2013 by the Government of Uttar Pradesh in the form of a non-affiliating, teaching, and research University after reconstituting the erstwhile Madan Mohan Malaviya Engineering College, Gorakhpur which was established in 1962. The University has a lush green campus that spreads over a vast area of 354 acres. The University is located on the Gorakhpur-Deoria Road about 9 km away from Gorakhpur Railway Station. Gorakhpur airport is approx. 5 km away from the University. Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur has been awarded an "A" grade by the National Assessment and Accreditation Council (NAAC). It has become the first state university to get this rank.

University has more than 5500 students in eight B. Tech. programs, i.e., Civil Engineering, Electrical Engineering, Mechanical Engineering, Electronics & Communication Engineering, Electronics & Communication Engineering (IoT), Computer Science & Engineering, Chemical Engineering, and Information Technology, along with B.Pharm., B.B.A, M.B.A., M.C.A and M.Sc. in Physics, Mathematics, and Chemistry. The university is currently offering M. Tech. in 12 disciplines and full-time/part-time Ph.D. programs in all departments. The university has distinguished alumni serving in various key positions in India and abroad.

#### **VISION**

To facilitate and promote studies, research, technology incubation, product innovation, and extension work in Science, Technology, and Management Education, and also to achieve excellence in higher technical education.

#### **MISSION**

- To serve society as a centre of higher learning, providing long-term societal benefits through transmitting advanced knowledge, discovering new knowledge and functioning as an active working repository of organized knowledge.
- To take a leadership role by providing need-based programs in engineering and technology, applied sciences, management, humanities, architecture, pharmacy, retail and fashion design, mass-communication, agriculture, and other employable Programs in emerging areas.
- To promote compassionate care of the highest quality that translates new knowledge into meaningful improvements in technological outcomes through interdisciplinary collaboration, fiscal responsibility, support of diversity, a focus on quality, and a culture of professionalism.
- To establish value-creating networks and foster relationships with other leading institutes of higher learning and research, alumni, and industries in order to provide significant contributions to national and international development.
- To create an intellectually stimulating Infrastructure and conducive environment for technology research, scholarship, creativity, innovation, entrepreneurship, and professional activity for service to the community and economy.



#### 1.2 POST GRADUATE PROGRAMMES OFFERED BY THE UNIVERSITY

The University offers M.Tech, MBA, M.Sc., MCA, and Ph.D. programmes. The University has a total 12 departments offering various programmes as per the following details:

Name of the Department	Name of the Programmes Offered
Civil Engineering (CED)	<ul> <li>M.Tech. (Environmental Engineering)</li> <li>M.Tech. (Seismic Design &amp; Earthquake Engineering)</li> <li>M.Tech. (Structural Engineering)</li> <li>Ph.D.</li> </ul>
Electrical Engineering (EED)	<ul> <li>M.Tech. (Power Electronics &amp; Drives)</li> <li>M.Tech. (Control &amp; Instrumentation)</li> <li>Ph.D.</li> </ul>
Mechanical Engineering (MED)	<ul> <li>M.Tech. (Energy Technology &amp; Management)</li> <li>M.Tech. (Computer Integrated Manufacturing)</li> <li>Ph.D.</li> </ul>
Electronics & Communication Engineering (ECED)	<ul><li>M.Tech. (VLSI)</li><li>M.Tech. (Communication Systems)</li><li>Ph.D.</li></ul>
Computer Science & Engineering (CSED)	<ul><li>M.Tech. (Computer Science &amp; Engineering</li><li>Ph.D.</li></ul>
Department of Chemical Engineering (CHD)	<ul><li>M.Tech (Chemical Engineering)</li><li>Ph.D.</li></ul>
Information Technology & Computer Application (ITCA)	<ul><li>M.Tech. (Information Technology)</li><li>MCA</li><li>Ph.D.</li></ul>
Management Studies (MSD)	<ul><li>MBA</li><li>Ph.D.</li></ul>
Physics & Material Science (PMSD)	<ul><li>M.Sc. (Physics)</li><li>Ph.D.</li></ul>
Chemistry & Environmental Science (CESD)	<ul><li>M.Sc. (Chemistry)</li><li>Ph.D.</li></ul>
Mathematics & Scientific Computing (MSCD)	<ul><li>M.Sc. (Mathematics)</li><li>Ph.D.</li></ul>
Humanities and Social Sciences (HSSD)	<ul><li>Ph.D. in Economics</li><li>Ph.D. in English</li><li>Ph.D. in Psychology</li></ul>

#### **1.3** HIGHLIGHTS

- NAAC "A" accredited university
- University ranked 84th in overall Engineering Category of NIRF-2024.
- University ranked 94th in overall University Category of NIRF-2024.
- University ranked 40th in overall state public University Category of NIRF-2024.



- University ranked 1st in State level, 5th in National level, and 61th in World level in HE Higher Education Ranking 2024.
- University ranked 26th in overall Technical University Ranking of India Today-2024.
- Choice Based Credit System
- Emphasis on multidisciplinary approaches to learning and research.
- MoUs with academic and research institutions in India and abroad.
- Alumni in leadership positions in industry and academia
- Financial assistance for research work
- Well-established Training and Placement Cell
- GATE-qualified M.Tech students are permitted to enrol for a year M.Tech +Ph.D dual degree
- Availability of a large number of e-journals and e-books
- Well established incubation cell to support innovation, creativity and intellectual excellence of students

# ADMISSION TO M.TECH. PROGRAMMES

#### 2.1 MODE OF ADMISSION

The university offers M.Tech programmes under Regular and Sponsored categories. The admissions in M.Tech. programs for sessions 2025-26 will be made as follows.

- Oirect admission through GATE
- Admission through CUET (PG) -2025 conducted by National Testing Agency (NTA)
- Admission through Malaviya Entrance Test (MET-2025)

The University conducts counselling under the supervision and control of the Admission Cell. It has the authority to conduct the admission process and to decide about the modalities of admissions, allotment of seats, and all matters related to the admissions in the University with the approval of the Vice Chancellor, MMMUT, Gorakhpur. For Admissions to all Programs, the reservation rules prescribed by the Uttar Pradesh Government shall be followed strictly. The reservation category-wise breakup in intake of each program shall be notified on the university website separately before the start of online counselling.

#### Admissions in all M. Tech. programmes will be completed in 3 phases given as follows:

- a. In the first phase, valid GATE scorecard holders will be invited and given first priority.
- b. In the second phase, applicants with valid CUET (PG)-2025 scores will be considered. The order of preference in sequence will be as follows (Wherever applicable)
  - a) Engineering degree with CUET (PG)
  - b) MCA degree with CUET (PG)
  - c) M.Sc. degree with CUET (PG).
- c. In the third phase, candidates on the vacant seats will be admitted on the merit basis of the university admission test (Malaviya Entrance Test-2025) tentatively scheduled to be held offline on June 29, 2025, at MMMUT Gorakhpur. Candidates are required to refer the **Appendix C** for detail syllabus of the MET-2025.

The final date of the Malaviya Entrance Test-2025 (MET-2025), registration date for MET-2025, counseling schedule, process, counseling fee, seat confirmation fee, and fee refund policy will be notified separately on the University website for all PG courses. The eligible candidates must regularly visit the university website (www.mmmut.ac.in) admission section. The allotment of the seats through counselling at MMMUT Gorakhpur will be carried out strictly in accordance with the merit of the candidate, the candidate's order of preference for the seats, and the availability of vacant seats in the respective category. All the latest instructions of the University up to the date(s) of counselling shall be applicable.



#### 2.2 DETAILS OF M.TECH. PROGRAMMES WITH INTAKE AND SEAT MATRIX

S.No.	Program	Intake in 1st Year			
	Master of Technology (M.Tech.)				
1.	Environmental Engineering (ENV)	18			
2.	Seismic Design and Earthquake Engineering (SDEE)	18			
3.	Structural Engineering (STR)	18			
4.	Power Electronics and Drives (PED)	18			
5.	Control and Instrumentation (C&I) 18				
6.	Energy Technology and Management (ETM)				
7.	Computer Integrated Manufacturing (CIM) 18				
8.	VLSI 18				
9.	Communication Systems (CS) 18				
10.	Computer Science and Engineering (CSE) 18				
11.	Information Technology (IT) 18				
12.	Chemical Engineering (CHE) 18				

#### **Tentative Seat Matrix**

Branch		Intake	GN	EWS	OBC	SC	ST
	ENV	18	7	2	5	3	1
CED	STR	18	8	1	5	4	0
	SDEE	18	8	1	5	4	0
EED	PED	18	7	2	5	4	0
EED	C&I	18	7	2	5	4	0
ECED	CS	18	7	2	5	4	0
ECED	VLSI	18	8	1	5	3	1
MED	CIM	18	7	2	4	4	1
MED	ETM	18	7	2	5	4	0
ITCA	IT	18	7	2	5	4	0
CSED	CSE	18	7	2	5	4	0
CHD	СНЕ	18	7	2	4	4	1
	Total	216	87	21	58	46	4

#### **2.3** IMPORTANT INSTRUCTIONS

- 2.3.1 The candidate must himself/herself ensure his/her eligibility to appear in the respective entrance test of a particular Program. If a candidate who is not eligible to appear in the examination does so, he/she will not have any claim whatsoever for admission to any program through the entrance test.
- 2.3.2 Candidates who are yet to appear in the qualifying examination or have appeared but whose results are awaited are also eligible to appear in the entrance test. However, the candidates in respect of whom the result of the qualifying examination has not been declared by the date of document verification due to any reason



- whatsoever, shall not be eligible for admission under any circumstances.
- 2.3.3 For admission to M. Tech. program, the candidates, who have passed the qualifying examination from an institution located outside U.P. and whose parents are NOT domicile of U.P. are also eligible for admission to M. Tech. Programs offered at the university are only under the General (OPEN) category.
- 2.3.4 Accepting admission to the University implies acceptance by the candidate and his/her parents or guardians of all the provisions given in this admission brochure and the University rules as applicable. Any change in the rules, regulations, fees, special conditions, etc., of the University shall mutatis mutandis apply to the admitted candidate.
- 2.3.5 Candidates seeking advantage of reserved categories must indicate the same but not enclose any supporting certificates with the application form. The advantage of horizontal reservation is not applicable for admission to M. Tech. The certificates will have to be produced in original at the time of document verification, along with one attested copy of each one of them. The proforma of certificates is given at the end of this admission brochure in Appendix A. These are subject to change even up to the starting date of counseling as per orders of Govt. of Uttar Pradesh/University. Candidates are essentially required to produce the respective certificates in support of their claim for reservation in the prescribed format only. Unless approved by the University in the proforma, any deviation will deprive the candidate of the benefit being claimed. Note that Certificate 2 for OBC candidates will be valid only when it is issued on or after 01.04.2025 (mandatory due to conditions of creamy layer for OBC).
- 2.3.6 The result of GATE/CUET(PG)-2025/MET-2025 for the respective programme as declared by the conducting IIT/National Testing Agency (NTA)/University shall be final. However, the candidate seeking admission to any programme can challenge the evaluation of his/her answers per the rules prescribed by the conducting IIT/National Testing Agency (NTA)/University.
- 2.3.7 If any document/declaration submitted by the candidate is found to be false at any stage, his/her candidature for admission shall be canceled, and he/she will be liable for prosecution under the law. In case of any legal dispute regarding admission, the jurisdiction will be limited to Gorakhpur courts only. If any Board awards only letter grades without providing an equivalent percentage of marks on the grade sheet, the candidate should obtain a certificate from the Board specifying equivalent marks and submit it at the time of document verification. If the candidate does not provide such a certificate, the decision of the University Admission Cell (UAC) regarding his/her eligibility shall be final and binding.
- 2.3.8 For admission in any program, the admit card, result, and all related notifications in connection with CUET(PG) shall be made available on the official websites of NTA https://pgcuet.samarth.ac.in. For matters related to admissions as well as counselling of all Programs, the candidates are required to visit the University's official website www.mmmut.ac.in, regularly. It is the responsibility of the candidate to visit these websites and be informed about all information relevant to him/her, failing which the University will not be responsible for any loss due to lack of communication.
- 2.3.9 For any queries regarding admission, the contact numbers 8765783798 and 9235500507 may be used from 10.00 a.m. to 5.00 p.m. only on all days except gazetted holidays, Sundays, and from 10.00 a.m. to 1.00 p.m. on Saturdays. For the queries through e-mail (admission2025@mmmut.ac.in), the reply will be made after 24 hours.
- 2.3.10 The date of reporting for the newly admitted students shall be notified on the university website and shall also be informed to the candidate in the admission offer letter during the counselling.
- 2.3.11 There is no management quota in the university. Admission is made only through counseling as per the procedure given in this brochure.



#### 2.4 ELIGIBILITY FOR M.TECH. PROGRAMME

The admission is open to the Indian Nationals who have passed/appeared in the qualifying examination, fulfilling the eligibility requirements given below. GATE-qualified candidates with qualifications stated below will be given first preference, and CUET(PG)-2025 qualified candidates shall be admitted only against those M. Tech. seats which shall remain vacant after admitting valid GATE qualified candidates. All GATE qualified candidates shall receive a monthly stipend as per the norms of AICTE. The candidates who are not domicile of U.P. will be eligible to take admission against general seats only. The reservation policy, as prescribed by the U.P. State Government, shall be applicable for admissions of UP domicile candidates only.

Candidates applying under the sponsored category should possess a working experience of a minimum of two years in any industry/organization (offline mode) and shall be required to provide a sponsorship certificate from sponsoring organization/industry at the time of counselling. The admission to such candidates shall be on a supernumerary basis as per university rules.

#### **Department: Civil Engineering**

- (i) M.Tech. (Environmental Engineering): B.E./B.Tech. or equivalent Engineering degree in Civil/Environmental/ Chemical/ Structural/ Agricultural/ Construction Technology/Construction Technology and Management with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.
- (ii) M.Tech. (Structural Engineering): B.E./B.Tech. or equivalent Engineering degree in Civil/Structural/Construction Technology/Construction Technology and Management with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.
- (iii) M.Tech. (Seismic Design and Earthquake Engineering): B.E./B.Tech. or equivalent Engineering degree in Civil/Structural/Construction Technology/Construction Technology and Management with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.

#### **Department: Computer Science & Engineering**

**M.Tech.** (Computer Science and Engineering): B.E./B.Tech. or equivalent Engineering degree in Computer Science/Computer Sc. and Engineering/Computer Engineering/Information Technology/Software Engineering and other relevant branches or M.Sc degree in Computer Science/IT or MCA with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.

#### **Department: Information Technology & Computer Application**

**M.Tech.** (Information Technology): B.E./B.Tech. or equivalent Engineering degree in Information Technology/Computer Science/Computer Sc. and Engineering/Computer Engineering/Software Engineering and other relevant branches or M.Sc degree in Computer Science/IT or MCA with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.

#### **Department: Electrical Engineering**

(i) M.Tech. (Power Electronics and Drives): B.E./B.Tech. or equivalent Engineering degree in either Electrical



- Engineering (EE) or Electrical and Electronics Engineering (EN) with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.
- (ii) M.Tech. (Control and Instrumentation): B.E./B.Tech. or equivalent Engineering degree in Engineering/ Technology in Electrical Engineering, Electrical and Electronics Engineering, Instrumentation and Control Engineering, and Instrumentation Engineering with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/degree.

#### **Department: Electronics & Communication Engineering**

- (i) M.Tech. (VLSI): B.E./B.Tech./AMIE/ or/ equivalent, Electronics & Communication Engineering. (ECE,) Electronics & Telecommunication Engineering (ET), Instrumentation/Engineering/(IN), Electrical & Electronics Engineering (EN), Electronics & Instrumentation (EI), Electrical/Engineering/(EE), Biomedical Engineering (BM), Computer/Science/and/Engineering (CSE), Information/Technology/(IT), Engineering/ Physics/(EP), Energy/ Engineering/(EN) (ii)./M.Sc./ or/ equivalent/ in/ Electronics/Electronic/Sciences/ (EL)with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/ PwD). The decision of the University shall be final to decide equivalency of branches/degree.
- (ii) M.Tech. (Communication Systems): B.E./B.Tech./AMIE/ or/ equivalent, Electronics & Communication Engineering. (ECE,) Electronics & Telecommunication Engineering (ET), Instrumentation/ Engineering/(IN), Electrical & Electronics Engineering (EN), Electronics & Instrumentation (EI), Electrical/ Engineering/(EE), Biomedical Engineering (BM), Computer/ Science/ and/ Engineering (CSE), Information/ Technology/(IT), Engineering/Physics/(EP), Energy/ Engineering/ (EN) (ii)./ M.Sc./ or/ equivalent/ in/ Electronics// Electronic/ Sciences/(EL) with at least 50% marks (45% marks in case of candidates belonging to SC/ST/ PwD). The decision of the University shall be final to decide equivalency of branches/degree.

#### **Department: Mechanical Engineering**

- (i) M.Tech. (Computer Integrated Manufacturing): B.E./B.Tech. or equivalent. Engineering degree in Mechanical/Production/Industrial/Manufacturing/Automobile/Aerospace Engineering/Aeronautical Engineering with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/ PwD). The decision of the University shall be final to decide equivalency of branches/degree.
- (ii) M.Tech. (Energy Technology and Management): B.E./B.Tech. or equivalent. Engineering degree in Mechanical/Production/Industrial/Manufacturing/Automobile/Aerospace Engineering/Aeronautical Engineering with with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD). The decision of the University shall be final to decide equivalency of branches/ degree.

#### **Department: Chemical Engineering**

M.Tech. (Chemical Engineering): B.E./B.Tech. or equivalent. Engineering degree in Chemical/Petrochemical/Environmenal/Leather/Paint/Plastic/Material/Metallurgy/Procution/Civil/Paper/Biochemical/Biotechnology/surface coating etc. with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD) OR M.Sc in Chemistry, Environmental, Material and Physics with at least 50% marks (45% marks in case of candidates belonging to SC/ST/PwD) with B.Sc in appropriate branch of Science



# 2.5 TEST PAPER CODE OF CUET(PG)-2025 FOR ADMISSION TO M.TECH PROGRAMMES

Department	Program	CUET(PG) 2025 Paper Code				
	Master of Technology (M.Tech.)					
	Environmental Engineering (ENV))					
Civil Engineering	Seismic Design and Earthquake Engineering (SDEE)	MTQP02				
	Structural Engineering (STR)					
Electrical Engineering	Power Electronics and Drives (PED)	MTQP10				
Electrical Engineering	Control and Instrumentation(C&I)	1411 (1 10				
Machanical Engineering	Energy Technology and Management (ETM)	MTQP07  MTQP05/MTQP10/ SCQP17/SCQP19/ SCQP24				
Mechanical Engineering	Computer Integrated Manufacturing (CIM)					
Electronics & Communication Engineering	VLSI					
Diceronics & Communication Engineering	Communication Systems (CS)					
Computer Science & Engineering	Computer Science and Engineering (CSE)	MTQP04/SCQP09				
Information Tech & Computer Application	Information Technology (IT)	MTQP04/SCQP09				
Chemical Engineering	Chemical Engineering (CHE)	MTQP01/SCQP08/ SCQP11/SCQP18/ SCQP24				

#### 2.6 SCHOLARSHIPS/FINANCIAL ASSISTANCE

- i. Malaviya Chhatra Kalyan Nidhi (MCKN)
  - Compensation in the event of an accident resulting in permanent/total/partial disability of the student.
  - In case of their parent's demise, complete university fee remittance to the student to continue study. For more information, please visit http://www.mmmut.ac.in/pdf/Chhatra Kalyan Nidhi Rules FINAL .pdf
- ii. Students are liable to get the social scholarship the UP Govt provides as per candidature validity.
- iii. GATE-qualified students with valid gate scores are liable for scholarships as per MHRD.

#### 2.7 FEE DETAILS

The fee structure for the academic sessions 2025-26 will be displayed on the website before final counseling.

# 3 UNIVERSITY RESERVATION CRITERIA

Candidates seeking admission to different Programs are advised to read the reservation rules carefully before filling out their application form for counseling.

#### 3.1 RESERVATION

a. Vertical Reservation (Category):



S.No.	Category	Percentage of Reservation
(a)	Scheduled Caste of U.P.	21%
(b)	Scheduled Tribe of U.P.	2%
(c)	Other Backward Classes of U.P.	27%
(d)	Economically Weaker Section of U.P.	10%

b. Horizontal Reservation (Sub-category in each vertical reservation category):

#### Horizontal Reservation is not applicable to the M.Tech program.

S.No.	<b>Sub-Category</b>	Code	Maximum Percentage of Total Seats*
(a)	Dependents of Freedom Fighters from U.P.	UPFF	2%
(b)	Sons/Daughters of 'defence personnel of U.P. either retired (superannuated) or killed/disabled in action'or 'defence personnel posted in U.P.'	UPAF	5%
(c)	Divyangjan/differently abled person (earlier known as disabled of U.P.)	UPHC	5%
(d)	Girls of U.P.	UPGL	20%

<sup>\*</sup> Subject to change as per latest instructions of Govt. of U.P. till the date of counselling.

- c. The candidates can claim only one type of horizontal reservation out of UPFF/UPAF/UPHC. However, the female candidates can also claim for any one of UPFF/UPAF/UPHC along with UPGL.
- d. The change of category/sub-category filled in Online submission shall not be entertained under any circumstances.
- e. Category/sub-category must be supported by the relevant certificates as per proforma given in Appendix-A to be produced at the time of document verification in counseling, failing which the candidates will not get the advantage of respective category/sub-category.
- f. The advantage of horizontal reservation in the Armed force sub-category is available to sons/daughters of 'defense personnel of U.P. either retired (superannuated) or martyred/disabled in action and the dependents settled in U.P.' or 'the defense personnel posted in U.P.' on the date of entrance test.
- g. Certificates 4, 5, and 6 in Appendix A are required at the time of document verification for claiming reservations in subcategories mentioned in sections 3.1(b).
- h. Please note that the benefit of the UPGL subcategory will automatically be given to all female candidates.
- i. As per Guidelines from the Ministry of Defence, the order of priorities for reservation or preferences to the wards of Armed Forces Personnel by States/UTs/Central/State Universities/Autonomous. Institutions for admission in Medical/Professional/Non-professional Programs will be as follows:

Priority I	Widows/Wards of Defence personnel killed in action.			
Priority II	Wards of disabled in action and boarded out from service.			
Priority III	Wards of disabled in service and boarded out with disability attributable to military service.			
Priority IV	Wards of disabled in service and boarded out with disability attributable to military service.			
Priority V	Wards of Ex-Servicemen and serving personnel who are in receipt of Gallantry Awards:			
	i. Param Vir Chakra	ii. Ashok Chakra	iii. Sarvottam Yudh Seva Medal	
	iv. Maha Vir Chakra	v. Kirti Chakra	vi. Uttam Yudh Seva Medal	
	vii. Vir Chakra	viii. Shaurya Chakra	ix. Yudh Seva Medal	
	x. Sena, Nau Sena, Vayu Ser	na Medal	xi. Mention-in-Dispatches.	



Priority VI	Wards of Ex-Servicemen.	
Priority VII	<ul> <li>Wives of: <ol> <li>defence personnel disabled in action and boarded out from service.</li> <li>defence personnel disabled in service and boarded out with disability attributable to military service.</li> <li>ex-Servicemen and serving personnel who are in receipt of Gallantry Awards.</li> </ol> </li></ul>	
Priority VIII	Wards of Serving Personnel.	
Priority IX	Wives of Serving Personnel.	

j. The advantage of horizontal reservation is not applicable for admission to M. Tech. Programmes.

#### **3.2** MEDICAL STANDARDS

- a. Candidates must submit a certificate of medical fitness/handicap on Certificate 8 in Appendix A at the time of document verification.
- b. The medical standards prescribed are as given below:

#### **Medical Standards Applicable:**

Height	
Weight	Candidate should be Physically fit to pursue his/her studies in the opted Program.
Chest Measurement	
Heart and lungs	No abnormality
Hernia, hydrocele, piles etc.	The presence of any of these is to be essentially corrected before joining.
Vision	Normal. If defective, it must be corrected to 6/9 in the better eye and 6/12 in the worse one. Eyes should be free from congenital or any other disease.
Hearing	Normal. If defective, it must be corrected before joining.
Physically handicapped/disabled	The candidate having any one type of physical handicap/ disability is given below.

#### Divyangjan/differently abled person:

Type – I	Minimum 40% Permanent Visual Impairment
Type – II	Minimum 40% Permanent Locomotors Disability
Type – III	Minimum 40% Permanent Speech and Hearing Impairment

#### **3.3** CATEGORY DEFINITIONS

S.No	Details	Code
a.	Candidates, who have passed the qualifying examination from an institution located in the State of Uttar Pradesh and who do not claim for any reserved category are eligible for admission to all the Programs in the University against available General (OPEN) seats (No certificate required).	UPGE
b.	Candidates, who have passed the qualifying examination from an institution located in U.P. and are domicile of U.P.; and belong to Schedule Caste (SC) of U.P./Schedule Tribe (ST) of U.P./Other Backward Classes of U.P./Economically Weaker Section (EWS) of U.P. are eligible for admission against available reserved seats of their respective category. Certificate 1 or 2 or 13A and 13B in Appendix A as applicable is required. List of SC, ST and OBC castes as per SC/ST Act 1976 and Government Order 4/1/2001-TC/Ka-2/2002 dt. 19/09/2002 and as provided by concerned U.P. Govt. department.	UPSC/ UPST/ UPBC/ UPGEEWS



S.No	Details	Code
c.	Candidates, who have passed the qualifying examination from an institution located outside U.P. and whose parents are domicile of U.P.; and who have not claimed for any reserved category, are also eligible for admission to Programs offered in the University under General (OPEN) category. Such candidate has to produce the domicile certificate of his/her parents (father/mother only) at the time of counselling (Certificate 3 in Appendix-A)	UPGD
d.	Candidates, who have passed the qualifying examination from an institution located outside U.P.; and whose parents are domicile of U.P.; and who belong to Schedule Caste of U.P./Schedule Tribe of U.P./Other Backward classes of U.P. /Economically Weaker Section (EWS) of U.P. are also eligible for admission against reserved seats of their category. Such candidate has to produce the domicile certificate of his/her parents (Father/Mother only) (Certificate 3 in appendix A) and category certificate (Certificate 1 or 2 or 13A and 13B as applicable) at the time of counselling. List of SC, ST and OBC castes as per SC/ST Act 1976 and Government Order 4/1/2001-TC/Ka-2/2002 dt. 19/09/2002 and as provided by concerned U.P. Govt. department.	GDSC/ GDST/ GDBC/ UPGDEWS
e.	<ul> <li>The domicile requirement to son/daughter of following is relaxed and admission is permitted to such:</li> <li>i. Defence personnel settled in U.P. on the date of Admission Test after retirement/being disabled in action or defence personnel killed in action and the dependents settled in U.P. on the date of entrance test. Certificate 5 Appendix-A is required.</li> <li>ii. Defence personnel who are not domicile of U.P. but are posted in U.P. on the date of entrance test. Certificate 5 in Appendix-A is required.</li> <li>iii. Employee of All India services belonging to U.P. cadre. Certificate 10 in Appendix-A is required. GDDA candidates will be considered as UPGD category for all other benefits.</li> <li>GDDA candidates will be considered as UPGD category for all other benefits.</li> </ul>	GDDA
f.	For Admission to M. Tech./MCA/MBA/M.Sc. programs, the candidates, who have passed the qualifying examination from an institution located outside U.P. and whose parents are not domicile of U.P. are also eligible for admission to M. Tech./MCA/MBA/M.Sc. Programs offered in the University under the General (OPEN) category. (no certificate required).	OSGE

Abbreviation of allotted Category	Category	Subcategory
GNOP	General (OPEN) Open for all candidates of Home State (Uttar Pradesh)	_
GNGL	General	Girls of U.P.
GNAF	General	Sons/Daughters of defence personnel of U.P. either retired (superannuated) or killed/disabled in action or defence personnel posted in U.P.'
GNFF	General	Dependents of Freedom Fighters from U.P.
GNHC	General	Divyangjan/differently-abled persons of U.P.
EWOP	Economically Weaker Section of U.P.	
EWGL	Economically Weaker Section of U.P.	Girls of U.P.
EWAF	Economically Weaker Section of U.P.	Sons/Daughters of defence personnel of U.P. either retired (superannuated) or killed/disabled in action or defence personnel posted in U.P.'
EWFF	Economically Weaker Section of U.P.	Dependents of Freedom Fighters from U.P.
EWHC	Economically Weaker Section of U.P.	Divyangjan/differently-abled persons of U.P.



Abbreviation of allotted Category	Category	Subcategory
ВСОР	Other Backward Classes of U.P.	
BCGL	Other Backward Classes of U.P.	Girls of U.P.
BCAF	Other Backward Classes of U.P.	Sons/Daughters of defence personnel of U.P. either retired (superannuated) or killed/disabled in action or defence personnel posted in U.P.'
BCFF	Other Backward Classes of U.P.	Dependents of Freedom Fighters from U.P.
ВСНС	Other Backward Classes of U.P.	Divyangjan/differently-abled persons of U.P.
SCOP	Scheduled Caste of U.P.	
SCGL	Scheduled Caste of U.P.	Girls of U.P.
SCAF	Scheduled Caste of U.P.	Sons/Daughters of defence personnel of U.P. either retired (superannuated) or killed/disabled in action or defence personnel posted in U.P.'
SCFF	Scheduled Caste of U.P.	Dependents of Freedom Fighters from U.P.
SCHC	Scheduled Caste of U.P.	Divyangjan/differently-abled persons of U.P.
STOP	Scheduled Tribe of U.P.	
STGL	Scheduled Tribe of U.P.	Girls of U.P.
STAF	Scheduled Tribe of U.P.	Sons/Daughters of defence personnel of U.P. either retired (superannuated) or killed/disabled in action or defence personnel posted in U.P.'
STFF	Scheduled Tribe of U.P.	Dependents of Freedom Fighters from U.P.
STHC	Scheduled Tribe of U.P.	Divyangjan/differently-abled persons of U.P.
OP	OPEN (Open for all candidates of Other State (Other than Uttar Pradesh))	

Proforma of various certificates is available in Appendix A. In the case of the online category/reservation certificates, the advantage of the reserved category shall be provided subject to their online validation through the respective statutory websites, failing which such candidates will not be entitled to the advantage of the reserve category, and will be treated in the general category. In case of the candidates who do not submit the proper category/reservation certificate in the prescribed proforma at the time of document verification, the advantage of reserved category shall not be provided to them, and they will be treated in the General Category

### 4

### REGISTRATION AND COUNSELLING GUIDELINES FOR M.TECH PROGRAMMES

#### 4.1. ADMISSION IN M.TECH. THROUGH GATE/CUET(PG) 2025

Candidates with a valid GATE/ CUET(PG) 2025 score should apply online for admission to the M.Tech programs as follows.

#### **Step 1: Online Registration**

All candidates with valid GATE/CUET(PG) 2025 scores fulfilling the eligibility criteria for M.Tech as mentioned in Postgraduate Admission Information Brochure 2025 for M.Tech Programmes are required to apply online through



the university website https://mmmutadm.samarth.edu.in/. Students are required to create their login using a valid email ID and password.

#### **Instructions for filling Online Applications Form**

- Candidates must complete the registration form with the correct information.
- Candidates are advised to read the guidelines carefully and check their eligibility and applicable reservation category, subcategory, gender, etc. before filling out and submitting the online registration form. The university shall not be responsible for any mistake made by the candidates in filling out the online application form.
- Scan copies of the original documents must be uploaded per the registration form requirement.
- Candidates must fill in their choice for specialization (as applicable) during online registration. Candidates who do not fill any choices will not be considered for seat allotment. His/her registration fee will also not be refunded.
- There is no provision to change/modify the given choices at any stage of the counselling.
- The candidates whose results of the qualifying examination are awaited due to any reason whatsoever shall have to submit an undertaking (Appendix B) that they will produce/submit their original documents on or before August 31, 2025. Failing which, admission of the candidate will be canceled, and the fee deposited will be forfeited.
- If the candidate's personal data is found incorrect at the time of document verification or at any later stage, the seat allotment/admission is liable to be cancelled.

Following Steps are given below:

Step#	Steps	Description of Steps		
1.	Open Applicant Registration Page	The candidate should fill up the On-line application form any place through Internet by login on to https://mmmutadm.samarth.edu.in/ as per the detailed procedure given on the website.		
2.	New Registration	Applicant must create an account by clicking on <b>New Registration Button</b> and filling <b>Registration form</b> followed by verification of email.  Note: Please remember Email Id. OTP is sent to your Registered Email Id for verification purpose.		
3.	Login	Applicant must enter Registered Email ID and Password to login to view dashboard. Three Steps are there to complete your form.		
		STEP 1	STEP 2	STEP 3
		Complete Profile	Apply In Programme	Pay Registration Fees & Submit the Application
4.	Profile	Applicant must create his profile (by clicking on <b>Profile Button</b> ) carefully by filling all the required information. Please note that no modification shall be allowed after final submission of profile.		
5.	Select Programme	Applicant must carefully fill information required in following sections (by clicking on Select Programme Button):  • Programme Selection • Personal Details • Academic Details		
		<ul><li>Other Details</li></ul>	<ul><li>Uploads</li></ul>	<ul><li>Preview</li></ul>
6.	Payments	• Payments (Applicant must pay the registration fee (by clicking on <b>Payment Gateway Button at bottom</b> ) to finally submit the application form and note down Order number/Transaction ID etc. mandatorily while making payment) after verifying all details by checking all confirmation checkboxes as per filled information.		



Step#	Steps	Description of Steps		
		• The candidate has to deposit the application fee ( <i>Rs. 2500/-</i> online as per the provisions made in online form. <b>The application fee is non-refundable.</b>		
• The online fee payment can be made through available online mode bank charges will be applicable as per the rules of the respective bank the transaction mode used and are to be paid by the candidates confirmation page will be generated only after making the onli successfully.				
		o In case the fee amount has been debited from candidate's bank account and On-line application website does not acknowledge any fee payment then the candidate should make the payment again till it is not reflected on the University's On-line application website. Candidate should contact the concerned bank for the difficulty faced by him/her. University will not be responsible for any inconvenience caused due to this. No extra time shall be permissible for any such failure.		
7	Dulas France	• Applicants must download <b>Print registration Slip</b> (by clicking on <b>Payments Button</b> ).		
7.	Print Form	On completion of the online application form, the candidates are requested to take the print of the application form and preserve it for future use as they shall submit the duly signed copy of application form at the time of document verification.		
		Please note that don't send the had copy of Application form to University.		

#### **Step 2: Document Verification**

All relevant and original documents will be verified offline at MMMUT Gorakhpur within the stipulated time. Candidates must keep one set of self-attested copies of the required documents. If the documents are found in order, the candidates can participate in the counselling process after document verification.

#### Step 3: Display of common general rank based on GATE/CUET(PG) 2025 result

All applicants combined general rank will be generated based on the percentile/score of valid GATE/CUET(PG) 2025 and used for seat allotment in the respective disciplines. First preference will be given to the candidates with valid GATE scores.

#### **Merit List Preparation**

The Merit List will be prepared using scores obtained by candidates in the respective Test Papers. If there is a tie in the score obtained by two or more candidates, the order of merit for such candidates shall be decided in the following order.

- a. **Rank is determined by age of the candidate.** If one candidate is older than another, the older candidate will have a higher rank than the younger candidate.
- b. Rank determination by Counselling Registration ID provided to candidates by MMMUT. Candidates with a lesser Registration ID will have a higher rank than those with a higher Registration ID.

#### **Step 4: Deposition of Confirmation Fee/Full Fee**

In the case of seat allotment, the candidate is required to print out the provisional allotment letter from their login. There is no provision for sending the allotment letter individually to the candidate by post.

Candidates are required to pay the Confirmation fee/Full fee as notified by the University later online using the payment gateway services within the stipulated time mentioned in the allotment letter. Failing this, the provisional admission offered to the candidate will be cancelled, and the offered seat will be allotted to another candidate as per



merit. The candidature of such candidate shall not be considered in any subsequent round of seat allotment except spot counselling.

#### **Step 5: Deposition of remaining University Fee**

Candidates are required to deposit their remaining university fees (if any) after deducting the confirmation fee before registration/reporting for the academic session 2025-26.

#### Step 6: Physical Document Verification at the University

After provisional admission, all relevant and original documents will be verified at the time of physical reporting at the university, along with one set of self-attested copies of the required documents. Failing which, the provisional admission offered will be cancelled, and the University fee will be forfeited.

**Note:** If the candidate's personal data is found incorrect during the verification of certificates, either at the time of reporting or at any later stage, the allotment of seat/ admission is liable to be cancelled, and his/her university fee will be forfeited.

#### 4.2 ADMISSION IN M.TECH. PROGRAMMES THROUGH MET-2025

Applications for admission to various M.Tech. Programme for the session 2025-26 through Malaviya Entrance Test (MET)-2025 are to be submitted online only. For any clarification regarding eligibility, category, subcategory, etc., for admission at MMMUT, Gorakhpur, please refer to the University Admission Brochure-2025 for PG courses.

#### **Step 1: Online Registration**

All candidates fulfilling the eligibility criteria for admission to M.Tech. programs mentioned in Admission Brochure 2025 for PG courses must apply online through the website https://mmmutadm.samarth.edu.in/. Students are required to create their login using a valid email id and password.

#### **Instructions for filling Online Applications Form**

- Candidates must complete the registration form with the correct information.
- Candidates are advised to read the guidelines carefully and check their eligibility and applicable reservation category, subcategory, gender, etc. before filling out and submitting the online registration form. The university shall not be responsible for any mistake made by the candidates in filling out the online application form.
- Scan copies of the original documents must be uploaded per the registration form requirement.
- Candidates must fill in their choice for specialization (as applicable) during online registration. Candidates who do not fill any choices will not be considered for seat allotment. His/her registration fee will also not be refunded.
- There is no provision to change/modify the given choices at any stage of the counselling.
- The candidates whose results of the qualifying examination are awaited due to any reason whatsoever shall have to submit an undertaking (Appendix B)that they will produce/submit their original documents on or before August 31, 2025. Failing which, admission of the candidate will be canceled, and the fee deposited will be forfeited.
- If the candidate's personal data is found incorrect at the time of document verification or at any later stage, the seat allotment/admission is liable to be cancelled.
  - Following Steps are given below:



Step#	Steps	Description of Steps		
8.	Open Applicant Registration Page	The candidate should fill up the On-line application form any place through Internet by login on to https:/mmmutadm.samarth.edu.in/ as per the detailed procedure given on the website.		
2.	New Registration	Applicant must create an account by clicking on <b>New Registration Button</b> and filling <b>Registration form</b> followed by verification of email.  Note: Please remember Email Id. OTP is sent to your Registered Email Id for verification purpose.		
3.	Login	Applicant must enter Registered Email ID and Password to login to view dashboard. Three Steps are there to complete your form.		
		STEP 1	STEP 2	STEP 3
		Complete Profile	Apply In Programme	Pay Registration Fees & Submit the Application
4.	Profile	Applicant must create his profile (by clicking on <b>Profile Button</b> ) carefully by filling all the required information. Please note that no modification shall be allowed after final submission of profile.		
5.	Select Programme	Applicant must carefully fill Select Programme Button):  o Programme Selection o Other Details	<ul><li>information required in follow</li><li>Personal Details</li><li>Uploads</li></ul>	<ul><li>wing sections (by clicking on</li><li>Academic Details</li><li>Preview</li></ul>
6.	Payments	<ul> <li>Other Details</li></ul>		
7.	Print Form	On completion of the online application form, the candidates are requested to take the print of the application form and preserve it for future use as they shall submit the duly signed copy of application form at the time of document verification.  Please note that don't send the had copy of Application form to University.		
8.	Download Admit Card		oad their admit card from same	<u> </u>

#### **Step 2: Appear in MET 2025**

All registered candidates without CUET (PG) 2025 and a valid GATE score must appear in the MET 2025



examination to be organised by the University in offline mode tentatively on June 29, 2025, at Madan Mohan Malaviya University of Technology, Gorakhpur. The MET 2025 examination will consist of 100 questions of two and a half hours duration. The detailed syllabus of MET 2025 is given in **Appendix C.** 

#### **Step 3: Document Verification**

All relevant and original documents will be verified within the stipulated time in offline mode at MMMUT Gorakhpur. Candidates must keep one set of self-attested copies of the required documents. If documents are found in order, then after document verification, the candidates will be allowed to participate in the counselling process.

#### **Step 4: Merit List and Seat Allotment**

The seat allotment of the candidates would be processed centrally, and results will be announced on counselling portal.

#### **Merit List Preparation**

The Merit List will be prepared by using scores obtained by candidates in the respective Test Papers. If there is a tie in the score obtained by two or more candidates, the order of merit for such candidates shall be decided in the following order.

- a) **Rank is determined by the age of the candidate.** If one candidate is older than another, the older candidate will have a higher rank than the younger candidate.
- b) Rank is determined by the Counselling Registration ID provided to candidates by MMMUT. A candidate with a lesser Registration ID will have a higher rank than a candidate with a higher Registration ID.

#### **Step 5: Deposition of Confirmation Fee/Full Fee**

In case of seat allotment, the candidate must print out the provisional allotment letter from their login. There is no provision for sending the allotment letter individually to the candidate by post.

Candidates must pay the Confirmation fee/Full fee as notified by the University later online using the payment gateway services within the stipulated time mentioned in the allotment letter. Failing this, the provisional admission offered to the candidate will be cancelled, and the offered seat will be allotted to another candidate as per merit. The candidature of such candidate shall not be considered in any subsequent round of seat allotment except spot counselling.

#### Step 6: Deposition of remaining University Fee

Candidates must deposit their remaining university fees (if any) after deducting the confirmation fee before registration/reporting for the academic session 2025-26.

#### **Step 7: Physical Document Verification at the University**

After provisional admission, all relevant and original documents will be verified at the time of physical reporting at the university, along with one set of self-attested copies of the required documents. Failing which, the provisional admission offered will be cancelled, and the University fee will be forfeited.

**Note:** If the candidate's personal data is found incorrect during the verification of certificates, either at the time of reporting or at any later stage, the allotment of seat/ admission is liable to be cancelled, and his/her university fee will be forfeited.

#### 5

### DEPARTMENTS OFFERING M.TECH. PROGRAMME

#### 5.1. DEPARTMENT OF CIVIL ENGINEERING

The Civil Engineering Department established in 1962, in Madan Mohan Malaviya University of Technology, Gorakhpur, is one of the oldest departments of the University, working since its inception. The department has, over the years, established its status as a centre for imparting high-quality technical education to undergraduate and post-graduate students and extending consultancy services to industries and various government departments located in the Eastern U. P. Besides the undergraduate course of B. Tech. (Civil Engineering), the department offers three



regular P. G. courses viz. M. Tech. in Seismic Design and Earthquake Engineering, M. Tech. in Structural Engineering and M. Tech. in Environmental Engineering. The facilities for doctoral research are also available in the department. B. Tech. (Civil) offered by this department has been accredited by the National Borad of Accreditation as per Washington Accord.

The department has experienced and highly qualified faculty members. The department capitalizes on its well-qualified and dedicated faculty towards achieving excellence in academics and research. Further, the strength of the department also lies in the strong linkages, it has with its alumni and various government/private organizations located in the region. The alumni of the department are well placed in various govt. / private organizations and are in close contact with the department. The department has been continuously interacting with various government and private organizations in the form of consultancy works, expert advice, design of projects etc. The department has latest versions of softwares for the learning of various areas of Civil Engineering. These software include among others ANSYS, MIDAS, STAAD PRO (with 24 modules), MATLAB, SAP 2000, OPTUM G2, CASTER etc.

With high quality faculty, staff and state of the art infrastructural facilities equipped with modern laboratories available for learning, the department also offers its expertise and other technical services in shaping various types of development projects being implemented in the fast growing part of eastern Uttar Pradesh by the State and Central government. The department is well known for its academic excellence and research contribution and provides innovations, skill development and entrepreneurship during the curriculum and extra curricular learning of students. The department has following full-fledged laboratories equipped with internet facility through LAN.

- Geotechnical Engineering Lab
- Air Quality Lab
- Hydraulics & Water Resources Engineering Lab
- Concrete Lab
- Mechanics of Structure Lab
- Engineering Geology Lab

- Environmental Engineering Lab
- Highway Engineering Lab
- Survey Lab
- Structures Lab
- Computational Lab

#### **Faculty of Civil Engineering Department**



**Dr. A. K. Mishra**Professor & Head
Transportation Engineering



**Dr. Govind Pandey**Professor
Environmental Engineering



**Dr. R. K. Shukla**Associate Professor
Remote Sensing, GIS and GPS



**Shri Ram Dular** Associate Professor Structural Engineering



**Dr. Sneha Gupta**Assistant Professor
Geo-environmental Engineering



Shri Vinay Kumar Singh Assistant Professor Structural Engineering



Dr. Madan Chandra Maurya
Assistant Professor
Structural Engineering



**Dr. Vinay Bhushan Chauhan**Assistant Professor
Geotechnical Engineering





Dr. Rohit Kumar Assistant Professor Construction Technology and Management



**Dr. Pradeep Muley** Assistant Professor Geotechnical Earthquake Engineering



Dr. Abhishek Prakash Paswan Assistant Professor Geotechnical Engineering



Dr. Krishna Kumar Singh Assistant Professor **Environmental Engineering** 



Dr. Ravi Prakash Tripathi Assistant Professor Hydraulics and Water Resources



Dr. Piyush Kumar Assistant Professor Structural Engineering



Dr. Deepak Prasad Assistant Professor Transportation Engineering



Dr. Saurabh Kumar Assistant Professor Geotechnical Engineering



Dr. Pawan Kumar Kummamuru Mr. Om Shankar Maurya Associate Professor Hydraulics and Water Resources, Water Quality Management



Professor of Practice Quality Control of Tehri Dam, Sprillways & Powerhouse

#### **Labs of Civil Engineering Department**











#### 5.2 DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering, established in 1962 has built a distinguished legacy in delivering high-quality technical education across undergraduate, postgraduate, and doctoral levels. In addition to its academic excellence, the department offers consultancy services to industries and government organizations across Eastern Uttar Pradesh and beyond, reinforcing its commitment to societal and industrial development.

The department offers B.Tech. in Electrical Engineering and two regular M.Tech. courses in Power Electronics & Drives and Control & Instrumentation along with a Ph.D. program in Electrical Engineering. It is currently undertaking several AICTE sponsored research projects that contribute to innovation and advancements in key areas of electrical engineering.

The department consistently promotes academic excellence, research, and innovation. Regular organization of seminars, workshops, and training programs fosters an enriched academic environment and strengthens industry-academia collaboration, offering students a blend of theoretical knowledge and practical exposure. Supported by a team of experienced faculty members and 12 state-of-the-art laboratories are:

- © Electrical Machines & Electrical Workshop Lab
- Computer/Research Lab
- Power System Lab
- Circuit Lab
- Instrumentation Lab
- Orives Lab

- Switchgear and Protection Lab
- Control System Lab
- Network Lab
- Electrical Measurement Lab
- Power Electronics Lab
- Non-Conventional Energy Resource Lab

Faculty members have made notable contributions to academic literature through the authorship of several books and book chapters, focusing on contemporary topics such as electric vehicles, power filters, microgrid stability, fuzzy controllers, and solar inverters.

The department is actively engaged in industrial consultancy assignments with organizations such as UPPTCL, PWD, UP Jal Nigam etc. providing expert solutions in power systems, infrastructure development, and electric vehicle technology. Furthermore, the department secured funding from premier agencies like MeitY, UPCST, and AICTE for sponsored research projects in domains such as agrivoltaics, electric mobility, and intelligent microgrid systems.

The Department also fosters a vibrant technical culture through its active professional societies and student chapters, such as the IEEE Student Branch, which play a pivotal role in promoting co-curricular engagement, technical skill development, innovation, and leadership among students.



#### **Faculty of Electrical Engineering Department**



Prof. Prabhakar Tiwari
Professor & Head
Power System



**Prof. V. K. Giri**Professor
Control & Instrumentation



**Prof. L. B. Prasad**Professor
Control & Instrumentation



Prof. S. K. Srivastava
Professor
Power System



Prof. A. K. Pandey
Professor
Power Electronics & Drives



**Prof. A. N. Tiwari**Professor
Power Electronics & Drives



**Dr. Awadesh Kumar**Associate Professor
Control & Instrumentation



**Dr. Navdeep Singh**Associate Professor
Power Electronics & Drives



**Dr. Shikha Singh** Associate Professor Power Electronics



**Dr. Bindeshwar Singh**Associate Professor
Power System



Lt. K. B. Sahay Assistant Professor Power System



**Dr. Shekhar Yadav**Assistant Professor
Control & Instrumentation



Mrs. Sapna B. Verma
Assistant Professor
Power Electronics &
Power Systems



**Dr. Vivek Patel**Assistant Professor
Control System



**Dr. Nikhil Kumar** Assistant Professor Power System



**Dr. Rohit Babu** Assistant Professor Power System



#### Labs of Electrical Engineering Department



#### **5.3** DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering, established in 1962, imparts quality education to students in the field of Mechanical Engineering through its undergraduate program. Presently, the department is also running M.Tech. programs in "Computer Integrated Manufacturing" since 2001 and "Energy Technology and Management" since 2013 as well as a regular/part-time Ph.D. program.

The department has highly qualified faculty members and technical supporting staff. The department is well known for maintaining benchmarks in technical education and research. Most of the alumni of the department occupy the highest positions in Government, Semi-Government, and Private organizations in the country as well as abroad. The laboratories of the department are being updated from time to time so that they remain well-equipped to cater to Research and Development. The department has been recently equipped with a fully automatic Flexible Manufacturing System in the Advanced Machining Lab. The department has the following full-fledged laboratories equipped with internet facilities.



- Advanced Machining Lab
- Fluid Machinery Lab
- Measurement Lab
- Strength of Material Lab
- Thermodynamics Lab

#### **Mechanical Workshop**

- Machine Shop
- Fitting Shop
- Black Smithy Shop
- Foundry Shop Advance Machining Lab

- Computer Lab
- Heat Transfer Lab
- Material Science Lab
- Refrigeration & Air Conditioning Lab
- Theory of Machine Lab
- Metrology Lab
- Sheet metal Shop
- Carpentry Shop
- Welding Shop
- Advanced Machining Lab

#### Faculty of Mechanical Engineering Department



**Dr. Sanjay Mishra**Professor & Head
Production Engineering



**Dr. S. C. Jayswal**Professor
Production Engineering



**Dr. Jeeoot Singh**Professor
Computational Mechanics



**Dr. Pallay Gupta**Associate Professor
Materials and Manufacturing Engineering



**Dr. Virendra Kumar** Associate Professor Thermal Engineering



**Dr. Manoj Kumar Gupta**Associate Professor
Polymer Matrix Composites



**Dr. Devesh Kumar**Assistant Professor
Thermal Engineering



**Dr. Ram Bilas Prasad**Assistant Professor
Design Engineering



Mr. Sunil Kumar Yadav Assistant Professor Production Engineering



**Dr. Prashant Saini**Assistant Professor
Thermal Engineering



**Dr. Dheerandra Singh**Assistant Professor
Thermal Engineering



**Dr. Rabesh Kumar Singh**Assistant Professor
Manufacturing Engineering



**Dr. Dipesh Kumar Mishra**Assistant Professor
Production Engineering





Dr. Ajeet Kumar Assistant Professor Thermal Engineering



Assistant Professor Thermal Engineering



Dr. Prem Shanker Yadav Dr. Amarish Kumar Shukla Assistant Professor Composites



Professor of Practice Hydraulic machines



Sri Mahabir Prasad Kandoi Dr. Bipin Kumar Srivastava Professor of Practice Welding

#### Labs of Mechanical Engineering Department





#### 5.4 DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

The Department of Electrical Engineering was established in 1962. Over the years, the department has established its reputation as an excellent center for imparting high-quality technical education to B.Tech. and consultancy to industries and Govt. departments located not only in the Eastern U.P. but also outside. The department has been accredited by the NBA for a period of three years since January 2017. The department offers two regular P.G. courses viz. M. Tech. in Power Electronics & Drive and M. Tech. in Control & Instrumentation. The department also offers Ph.D. Program. A number of AICTE/UGC (MRP) projects are in progress. The department has 11 well-equipped labs, viz.

#### The Department offers:

B.Tech in ECE (Started in 1973)



- B. Tech in ECE (IoT), (Started in 2023)
- M. Tech (VLSI) and M. Tech (Communication Systems),
- Doctoral programs in Electronics and Communication Engineering

#### **Major Research area of the Department:**

- Photonics
- Solar cells,
- VLSI and nanoelectronics.
- OT and Wireless Communication.
- 5G and next-generation wireless.
- Optical and microwave communications.
- State-of-art antenna design.

#### **Major Achievements from the ECE Department:**

- Large Number of patents/Papers published in the last five years (10 Patents and more than 500 Research Papers in peer-reviewed Journals and Conferences).
- 16 Govt. funded Research Projects (Total Grant 6.33 Cr).
- © 03 Full-time PhD Positions at 1.08 Cr for five years granted under Visvesvaraya Scheme, MeitY, Govt. of India. (First time in the State Technical University in Uttar Pradesh).
- Excellent Placement.
- Two projects won 1st Prize at the National Level Competition from IOT Lab.
- State of Art Labs like Drone, IoT, and Embedded System Labs.

#### **Major Project sanctioned to the department:**

- Rs 85 Lacs Project titled "Design of Low Power Memory Circuits" under C2S Scheme under MeitY, Govt. of India. License software such as CADANCE SYNOPSYS around 01 crore and Mentor Visual TCAD around 01 crore is available in VLSI Research Lab.
- Rs 1.11 Cr project with 03 full-time and 01 Part-time sanctioned under Visvesvaraya Scheme, MeitY, Govt. of India.
- Rs 2.895 Cr project titled "Development of IoT and Drone-based Agriculture Monitoring System with Objective of Skill Development of Socially Deprived Community" sponsored by MeitY, Govt. of India.
- Rs 20.8 Lacs project titled "Development of IoT-based Smart Fishpond Water Quality Monitoring System" under NABARD, Govt. of India.
- Development and characterization of selenium-based chalcogenide glasses for phase change memory (PCM) devices. (Under CST UP Lucknow)
- Development of SPR-based optical biosensor for cancer cell detection using 2D nanomaterials (Under CST UP Lucknow)

Technical and /or professional society currently exists in the department. The ECE Department at MMMUT is home to technical and professional societies.

Orone & IoT Club

ECE Society

IEEE Society



#### **Faculty of Electronics & Communication Engineering Department**



Dr. Sanjay Kumar Soni Professor & Head UAV, IoT and AI, Wireless Communication



Dr. Rajeev Kumar Chauhan
Professor
VLSI Design,
Photovoltaic



**Dr. Rajan Mishra**Associate Professor
Microstrip Antenna,
Solar Cell



Dr. Vinod Kumar
Associate Professor
Semiconductor devices fabrication
and characterization



**Dr. Ajay Kumar Baranwal**Associate Professor
Nanoelectronics,
Organics Electronics Devices, VLSI



Dr. Vijay Kumar Sharna Associate Professor VLSI, Nanoelectronics Low Power Circuits



**Dr. Meenakshi Chaudhary**Associate Professor
Semiconductor Devices Fabrication
and Characterization



**Dr. Vijay Kumar Verma**Associate Professor
Embedded System IoT, Robotics and
Control Analog Signal Processing.



Dr. Sudhansu Verma Assistant Professor RF Antenna & Solar Cell



**Dr. Gagandeep Bharti** Assistant Professor Microstrip Antenna



**Dr. Pooja Lohia**Assistant Professor
Optical Material and Devices,
Solar cell



**Dr. Anupam Sahu**Assistant Professor
Photonics and
Ouantum Electronics



**Dr. Bramha P. Pandey**Assistant Professor
Nanomaterials & Nanodevices



**Dr. Chandan**Assistant Professor
Antenna Design,
VLSI and Photonics



Dr. Vijay Shankar Chaudhary Assistant Professor Photonics, Photonic M

Crystal Fiber based Sensors



y Dr. Prince Kumar Singh
Assistant Professor
Modelling & Simulation of Semiconductor
Devices, Neuromorphic computing





Mr. Alok Kumar Shukla Assistant Professor Spintronic, Radiation Hardened Memories



Dr. Prateek Assistant Professor Wireless sensor Networking, Wireless Communication



Dr. Neha Mishra Assistant Professor Nanomaterials & Nanodevices



Dr. Dinesh Kumar Kotary Assistant Professor Wireless sensor Network, Wireless Communication, Soft Computing Machine Learning



Dr. Shivam Assistant Professor Optics & Photonics



Dr. Ankit Verma Assistant Professor Fabrication and Modelling of Thin Film Devices



Assistant Professor RF & Power Semiconductor Devices



Dr. Pragyey Kumar Kaushik Dr. Shalabh Kumar Mishra Assistant Professor Analog & Digital Signal Processing, Filter Design



Shri R. D. Pandey Adjunct Faculty Instrumentation & Semiconductor Devices

#### **Labs of Electronics & Communication Engineering Department**









Drone Exhibition in front of Governor, Chief Minister, Cabinet Minister, Principal Secretary of Governor and ADG Gorakhpur



#### 5.5 DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

The Department of Computer Science and Engineering is one of the largest departments in the University. From the historical point of view, the department has its great journey.

At the undergraduate level, we offer a Bachelor of Technology (B. Tech.,) program in Computer Science and Engineering with the option to specialize in Data Science, Artificial Intelligence & Machine Learning. Cyber Security & Cyber Physical Systems, Computer Graphics and Virtual Reality, Blockchain and Cryptocurrency, Software Engineering, and Geospatial Technology. The curriculum is designed considering the latest developments in the world of computing. The multidisciplinary components of the program provide a strong foundation to the students. CSE Majors, and minors & micros specialization are highly encouraged to work on research projects with



faculty members utilizing the departmental research facilities. In addition to imparting education to our students, we inculcate skills that enable our students to flourish amidst dynamic environment and technological challenges. Internet facilities are available for all students round the clock. Besides imparting theoretical knowledge, the curriculum stresses on developing analytical stills, communication, problem solving, and teamwork abilities. Recognise the todays need for, and have the preparation and ability to engage in independent and life-long learning we have introduce the concept of it in our curriculum in the broadest context of technological change. Therefore we can say that the program is designed not only to prepare students for various employment opportunities but also to cultivate their entrepreneurial spirit, ensuring they are equipped to make meaningful contributions to the corporate world and beyond.

The placement records of the CSE department are so phenomenal that they will blow your mind. Our placement record has been consistent with the placement record of more than 95% of students placed every year. Top companies that visited the campus for placements include TCS, BEL, Infosis, Microsoft, Accenture, Wipro, Amazon and many more with salaries going well beyond fifty lakhs per annum. The number of students who are doing internships is gradually increasing every year reaching to 100%.

At the graduate level, we offer a Master of Technology (M. Tech.) program in Computer Science and Engineering, and Doctor of Philosophy (Ph.D.) program in Computer Science and Engineering. An excellent combination of academic excellence in subject matters and top-notch research equips our graduate students with strong knowledge and research skills necessary for pursuing highly productive careers. The department has a thriving research environment The faculty have expertise in computer networks and cyber security, computer architecture and design, algorithms and analysis, artificial intelligence and machine learning, data analytics and natural language processing, cloud computing and internet of things(IOT), vision and image processing, software engineering and block chain technologies. Our faculty members aim at delivering top class education blending their rich research experience with classroom teaching. The areas of ongoing research are Algorithms and Complexity, Natural Language Processing, Image Processing, Computer Vision, Data Mining, Social Network Analysis, Computational Biology, Security and Privacy, Internet of Things, Wireless and Mobile Computing, Deep Learning, Reinforcement Learning, Neural Networks, Speech Recognition Technologies, Robotic Applications, Data Science & Big Data, Cyber Security etc. The department's large faculty size enables a wide range of specialization areas to be covered, offering student's flexibility in their academic pursuits. The department continuously looks for brilliant Computer faculty who will spearhead research in the emerging areas.

The department provides high-standard computing facilities to the students. It also promotes active industry-department affiliation by finding common areas of interest and participating in research projects and consultancy services. The department is equipped with state-of the art academic and research laboratories, classrooms with ICT-enabled learning technologies, tutorial rooms for collaborative learning, technology club conference spaces for co-curricular activities and seminar halls with public addressing systems for augmented learning. The 1:1 computer to student ration ensures students have an immense hands-on experience with focus predominantly on their skill development. We provide a pleasant working environment for students to undertake their practical and assignment work. Final year students and research scholars have entire separate labs at their disposal to carry out their work with high-speed internet connectivity to help them accomplishing their research objectives, even in Third year, students are allotted systems. We have added three new laboratories, i.e., Artificial Intelligence Lab (Rs. 3 crores, one of the most prestigious labs in our UP state), AR/VR Lab (Rs. 1.80 Crores) and Cyber Forensics Wellness Clinics (Rs. 2 Crores). The University's IT Services is available to all students to support with Core University IT systems and tools, as well as many other services and facilities. IT Services also offers a range of IT learning



courses for students, to support with learning and research.

The department takes immense pride in the accomplishments of its alumni, who have demonstrated excellence across diverse fields and have significantly contributed to society.

#### In Nutshell

The Department of Computer Science and Engineering prepares students for careers in programming, gaming, software system development, AI, computer vision, bioinformatics, data science and data mining, privacy and security, and much more. Our courses are designed to provide the essential skills and knowledge required to further your career in today's booming tech industry.

#### Faculty of Computer Science & Engineering Department



Dr. Udai Shanker
Professor & Head
Mobile Distributed Real
Time Database and Grid Database



**Dr. Rakesh Kumar**Professor
Artificial Intelligence, and
Machine Learning



Dr. P.K. Singh
Professor
Parallel Computing, Storage Systems,
Machine Learning.



Mrs. Meenu
Associate Professor
Artificial Intelligence, and
Machine Learning



**Dr. Satya Prakash Yadav**Associate Professor
Digital Image Processing, and
Feature Extraction



**Dr. Birendra Kumar Sharma**Associate Professor
Machine Learning, and
Internet of Things(IoT)



Dr. Ritesh Maurya
Associate Professor
Deep Learning, and Machine Learning



**Dr. Shailendra Pratap Singh**Associate Professor
Deep Learning, and
Internet of Things(IoT)



Dr. Lokendra Singh Umrao Associate Professor Blockchain Technology, and Multi-core Architecture



**Sri M.K. Srivastava**Assistant Professor
Machine Learning, Automata Theory





Dr. Rohit Kumar Tiwari Dr. Sushil Kumar Saroj Assistant Professor Computer Vision, and Machine Learning Applications



Assistant Professor Image processing, and Machine learning



Mr. Manish Kumar Gupta Assistant Professor Big Data, Blockchain, Mathematical Computation



Dr. Ninni Singh Assistant Professor Cognitive Intelligence, and Artificial Intelligence



Dr. Shantanu Shahi Assistant Professor Facial Recognition, and Pattern Recognition



Dr. Raj Kumar Assistant Professor Information Security, IoT and PQC, TOC



Dr. Vipul Narayan Assistant Professor Wireless Sensor Network, and Machine Learning



Dr. Swapnita Srivastava Assistant Professor Computer Architecture, Cache Memory, Machine Learning



Dr. Avaneesh Singh Assistant Professor Mathematical modelling, and Internet of things(IoT), and Artificial Intelligence



Ms. Anu Raj Assistant Professor Wireless Sensor Network(WSN)



Dr. Vimal Kumar Assistant Professor Computer Networks, and Cryptography



Dr. Pradeep Kumar Singh Dr. Abhishek Verma Dr. Amit Kumar Dwivedi Assistant Professor Data Mining, and Machine Learning



Assistant Professor Deep Learning, and Computer Vision



Assistant Professor Federated Learning, and Blockchain



Dr. Shwet Ketu Assistant Professor Internet of Things (IoT), and Machine Learning



Dr. Ram Kumar Assistant Professor Artificial Intelligence, and Information Retrieval



Dr. Satvik Vats Assistant Professor Deep Learning, Machine Learning



Dr. Shailesh Kumar Assistant Professor Computer Architecture, and Multi core Architecture



Dr. Pawan Kumar Mall Dr. Satya Prakash Maurya Assistant Professor Deep Learning, and Machine Learning



Assistant Professor Artificial Intelligence, and Decision Science





Mr. Sanjay Kumar Assistant Professor Database System, and Cryptography and Information Security



Dr. Sumit Kumar
Assistant Professor
Machine Learning,
Deep Learning, Image Processing



**Dr. Akshi Kumar**Foreign Faculty
Artificial Intelligence –
Advancing AI



Mr. Devesh Dubey Professor of Practice AI, Analytics, and Business Transformation



Mr. Rajesh Kumar Srivastava
Professor of Practice
Digital Transformation,
Digital Social Communication

#### Labs of Computer Science and Engineering Department



#### 5.6 DEPARTMENT OF CHEMICAL ENGINEERING

The Department of Chemical Engineering was started in the year 2016 with 60 undergraduate students in the B.Tech. Chemical Engineering programme and M.Tech. Chemical Engineering Program is 18. The postgraduate Programmes of M.Tech., in Chemical Engineering and Ph.D. was started in year 2024 and 2018 respectively. The department is well equipped with good undergraduate laboratories and research laboratories that have been upgraded. In line of vision of MMM University, Technology, the Department's goal is to offer students with a balanced set of academic and practical skills that will enable them to serve both the global chemical industry and societal requirements. Many funded research projects have been completed, and a few are now underway, with funding from prestigious organizations such as the Department of Science and Technology (SERB) and the Council of Science and Technology, Uttar Pradesh (UP-CST) in a variety of research areas. We are putting our efforts to provide students with an overall educational experience that will enable them to successful professional chemical engineers capable of lifelong learning and furthering their studies. The department is planning to start center of excellence in frontiers in the area of sustainable development.

The programmes offered by the department are:

B.Tech.

M.Tech.

Ph.D.

#### **Laboratories of Department**

- Mass Transfer Operations
- Instrumentation and Process Control Lab
- Mechanical Operation Lab
- Sugar/Alcohol Lab

- Heat Transfer Operations
- Chemical Reaction Engineering Lab
- Modeling and Simulation Lab
- Research Analytical Instrumentation Lab



### **Faculty of Chemical Engineering Department**



Dr. Vitthal L. Gole Professor & Head Process Intensification, Sonochemistry, Energy and Environment, Heat and **Advanced Oxidation Process** 



Dr. Ravi Shankar Assistant Professor Mass Transfer, Electrochemical



Dr. Jyoti Assistant Professor Advanced oxidation Processes, Polymeric composites, Water treatment



Dr. Prateek Khare Assistant Professor Electrochemical applications, Advance Separation Process



Dr. Jitendra Kumar Singh Assistant Professor Membrane Separation



Dr. Ajay Sujan Assistant Professor Mass Transfer, Hydrodynamic, Modelling and Simulation, Machine Learning



Prof. Vimal Rai Professor of Practice Process Engineering

#### **Labs of Chemical Engineering Department**









#### 5.7 DEPARTMENT OF INFORMATION TECHNOLOGY AND COMPUTER APPLICATION

The Department of Information Technology and Computer Application (ITCA) was established on 24th August 2018 with two PG Programme- MCA & M. Tech and Ph. D Programme. It has also started one UG program-B.Tech. (IT) from the session 2019-20.

The ITCA department aims to achieve national and international recognition through the educational and research achievements of its faculty and students. The department has dedicated and highly motivated faculty members who used to make all possible efforts to prepare the students and PhD research scholars to become a successful IT professional and a very good researcher making significant contributions to the development and growth of our nation. The department has a vast legacy of well-placed and highly reputed alumni working in India and abroad.

#### **Focus and Career Prospects**

The curriculum offers subjects such as Artificial Intelligence, Data Science and Analytics, Machine Learning, Deep Learning, AI Tools, Game Theory, Augmented Reality, Cryptography, Cyber Security, Digital Forensics, Internet of Things, Cloud Computing, Social Network Analysis, and Blockchain etc. The department also offers various programming courses like C, C++, Java, Python etc. to keep the students in sync with advances in Information Technology and prepare them for lifelong learning.

Students will be employable in companies related to software development, IoT based application industry, sensor technology, machine learning, artificial intelligence, big data analysis, networking and many more. In addition, they can pursue their higher education/research in the above areas at premium national or international universities.

#### **Courses Offered**

The Department offers following programs:

- **B.Tech.** Information Technology: (Started in 2019)
- **M.Tech.** Information Technology: (Started in 2006)
- **MCA** (Started in 1987)
- **Ph. D** (Started in 2019)

To keep pace with rapid developments in the field of Information Technology, the courses of these programme continuously upgraded to make the students as per Industries and Academia requirements. The programme is based on Choice Based Credit System. Students take courses within and outside the department, according to the programme requirements. The courses offered are of high standard, which includes advanced topics based on recent research. In addition, the department also offers high quality research programme at the doctoral level in various areas.

To keep in pace with the current technological advancements, the UG and PG curriculum has been modified time-to-time so that the students get a feel of what exactly is happening outside in the tech-world.



#### **Major Areas of Research**

Presently our faculty is undertaking research in following broad areas:

- Internet of Things (IoT)
- Deep Learning
- Wireless Sensor Network
- Cloud Computing
- Big data Analytics
- Blockchain
- Artificial Intelligence
- Advanced Database
- Mobile Computing
- Natural Language Processing
- Machine Learning
- Neural Network
- Social Networks
- Web Semantic
- Cryptography & Network Security

#### **Major Achievements**

- Large number of research papers published in the peer-reviewed International Journals and Conferences of high repute by the faculty and the students.
- Students and faculty also published many Book Chapters in Springer and written textbooks also.
- Some of the faculty of the department have been awarded an excellent rank in the World Scientist Ranking 2024 as well as 2025.
- Faculty of the department has submitted various Research Projects in different National agencies like DST (UP) and DST (GoI).
- All the faculty members are the members of various professional bodies of India like IEEE, Institution of Engineers, CSI etc.
- The department has conducted several Faculty Development Programs, Workshops and Expert Talks to groom the personality and skills of the Faculty, Staffs and Students.
- Faculty of the department have also taken various Keynote Lectures as Resource Persons in various International Conferences/ FDP as well as expert lectures in other Institutions to provide the benefits to our society.
- Faculty of the departments are also the recipients of different National Fellowships. One Faculty member of the department is the Executive Member in the MMMUT National Digital Library of India (NDLI) Club which has secured First position within Uttar Pradesh in 2025 as a result of its performance at national level.
- Two faculty of the department have received Industry Certification from EMC data storage system, Noida.
- One faculty of the department is the Honorary Director in Health OK organization.
- Two faculty of the ITCA department have received Research Award given by MMMUT Gorakhpur.
- One of the faculty has received the Gold Medal in M. Tech (CSE) and also received the Social and Technical awards from the industry.
- The department runs a society called Computer Society of Software Engineers (CSSE) for the extra-curricular as well as co-curricular activities of the students.
- Department has a MOOCs Recording Studio to record the lectures of faculty of any department for online support of lectures to the students.
- Students of the department have been placed in reputed software companies such as Expedia, Jus pay, Microsoft, Amazon, Flipkart, TCS, Wipro, Nagarro, Humming Wave etc with awesome packages.
- In order to nourish and groom the budding IT professionals, they are encouraged to participate in various extracurricular activities conducted by departmental student society. They are also motivated to excel their programming skills through clubs like MMMUT Reso, Code Chef etc.

#### **Laboratory Infrastructure**

Department has state-of-the-art laboratory which is managed by a Faculty-In-Charge, staff-in-charge and has the best-of-breed equipment's featuring Internet of Things (IoT), Cloud Computing, Blockchain, Machine Learning & Deep Learning, Artificial Intelligence, Neural Network, Social Networks, Web Semantic, Big data Analytics, Wireless Sensor Network, Natural Language Processing, Cryptography & Network Security.



The labs of department are given below:

- General Computing Lab: Open-Source Tools, Linux, C, C++, Java, Python etc.
- **IoT and Network Security Lab:** Network Simulator, IoT Simulator, Wireless Sensor Network Simulators, Social Network Analysis Tools, Network Security Tools etc.
- Cloud Computing Lab: ANEKA software, Cloud Computing, Fog Computing, Edge Computing, Web Development, Web Semantics etc.
- High Performance Computing Lab: Machine Learning, Deep Learning, Data Science and Analytics, Computer Vision, Image Processing, Blockchain etc.

#### Faculty of Information Technology and Computer Application Department



**Dr. D. S. Singh** Professor & Head Cryptography & Network Security



Dr. Sarvpal Singh
Professor
Wired/Wireless networking,
Mobile & Cloud Computing, Linux OS



**Dr. Shiva Prakash**Professor
Wired/Wireless Networks,
and IoT



Dr. Umesh Chandra Jaiswal
Professor
Natural Language, and
Machine Learning



**Dr. Jay Prakash**Professor
Wireless Sensor Networks,
and UAV



**Dr. R.K. Dwivedi**Associate Professor
Sensor Cloud, IoT,
Wireless Sensor Networks,



**Dr. Audithan Sivaraman**Associate Professor
Image Processing,
Network Security, Data Minig



**Dr. Ashish Srivastava**Assistant Professor
Adhoc Networks, UAV,
UAV Image/Video Processing



Mr. Vijay Kumar Tiwari
Assistant Professor
Operating System, Internet of Vehicles,
Computer Network



Ms. Pranjal Maurya
Assistant Professor
Operating system,
Digital logic





**Dr. Preeti Singh**Assistant Professor
Machine Learning,
Fuzzy logic,
Neural Network



Ms. Kumud Patel
Assistant Professor
Machine Learning, Deep Learning,
Time-series analysis,
optimization



Ms. Prachi Verma Assistant Professor Machine Learning, Artificial Intelligence, Cyber security



**Dr. Jitendra Mohan**Professor
Practice Cyber Security

### **Labs of Information Technology and Computer Application Department**







## 6 CENTRAL FACILITIES

#### 6.1. INFORMATION TECHNOLOGY RESOURCES CENTRE (ITRC)

Information Technology Resource Centre (ITRC) was established in 2005 under world bank programme (TEQIP-I) and is unique of its kind among all state engineering universities/colleges of U.P. The objective of the center is to provide the central computing resources under one roof to students, faculty and staff with a vision to support and strengthen the teaching-learning process and research. The local area network spread in almost entire campus is being managed from this center. It remains open for 24 hours and is equipped with advanced computer networking hardware and software tools. Having around 300 computers arranged in its different labs, it provides uninterrupted high speed internet connectivity to the entire campus with two leased line connections- 110 Gbps (1:1) NKN and 155 Mbps (1:1) BSNL leased lines.

#### Facilities available at/through ITRC

- 228 no. of computers and 8 no. of high-end servers (5 HP and 3 Blade).
- e Power backup with 2 no. of 20 KVA UPS, 6 no. of 10 KVA UPS, 2 no. of 5 KVA UPS.
- Various design and training software tools for students and faculty members.
- Aryabhatta Seminar Hall with state of art facilities of Virtual Class for effective learning.
- Manages 3 conference halls- Aryabhatt hall, J. C. Bose Hall and Golden Jubilee Hall equipped with video conferencing setup.
- Established two new halls- VC Conference hall and meeting hall in VC secretariat with advanced audio-video setups
- Three design labs with advanced software/hardware computing resources to cater to the needs of PG and Research students having total 70 computers.
- Three general computing labs with 100 no. of computers for UG students.
- One digital library exclusively for online study with 30 computers.
- Provides internet connectivity through OFC (of about 5 kms) to academic buildings, hostels and faculty/staff residences thus covering almost entire campus.
- Provides additional Wi-Fi connectivity in all major university buildings and their surroundings.
- Provides connectivity to Biometric attendance devices installed in various departments and sections for online attendance.
- Manages total 35 classrooms with 9 smart classrooms, 24 classrooms equipped with projectors and PA systems to support the effective teaching and learning.
- Manages Security system through CCTV Cameras installed at prime locations of the University.
- Manages computerized Gate Pass installed at university gate to further enhance the security.
- Establishment of two new Virtual Classroom is under process under the supervision of ITRC.

#### **6.2. CENTRAL LIBRARY**

Central library has a wide collection of books and periodicals on scientific, technical and allied subjects. It operates on open access system and students are





given free access to books and journals that are kept on open shelves. Total carpet area of library is 1779.426 sq. meter. It has a wide collection of Books, E-books, E-journals./Magazines & Newspapers. Total number of books including bound journals and ISI Code are 1, 25, 973 (One lakh twenty-five thousand nine hundred and seventy three).



#### **Special features:**

- Equipped with Wi-Fi facility and CCTV surveillance.
- Availability of OPAC (Online Public Access Catalogue).
- @ Air-Conditioned E-Library cum Reading Room.
- Remote Access (MyLoft Mob & Web App) Facility

#### Membership:

- **E-Shodh Sindhu**
- Shodh Gangotri
- NDLI Club

- Automated issue and return of books.
- Air-conditioned Reading Room.
- Shodh Ganga
- **©** DELNET
- ONOS (One Nation One Subscription)

#### **Books:**

S.No.	Books in different sections	No. of Books
1.	General Section	76190
2.	Book Bank Section	29868
3.	Reference Section	762
4.	Reserve Book Bank Section	8564
5.	M.B.A. Book Bank Section	2589

#### E-Books:

S.No.	Publishers	No. of E-Books
1	McGraw Hill	178
2	Springer	885
3	Pearson	782
4	New Age International	292
5	Wiley	138



S.No.	Journals	No. of Titles
1.	IEEE	170
2.	ASCE	28
3.	ASME	35
4.	Springer	1700
5.	J-Gate Science & Technology	24000
6.	GALE Info Track Pharmacy Collection	483
7.	Project Muse	731
8.	ACM Digital Library	158
9.	ACS Journals	87
10.	Lippincott Williams & Wilkins	305
11.	American Institute of Physics	28
12.	Bentham Science	118
13.	Wiley	1333
14.	Taylor and Francis Journals	2548
15.	Sage Publishing	988
16.	Oxford University Press	375
17.	Emerald Publishing	311
18.	Elsevier Science Direct	2387
19.	Cambridge University Press	442

#### **6.3. LECTURE HALL COMPLEX**

There are 03 lecture complexes with well-equipped modern facilities;

- Pushpagiri Lecture Hall complex has 14 smart classrooms.
- Takshila Lecture Hall complex has 14 smart classrooms.
- Nalanda Lecture Hall complex has 06 Lecture Halls and 02 drawing halls.

Besides these, there are departmental lecture classes equipped with modern facilities and seminar hall/conference hall for different academic purposes.







#### 6.4. MULTIPURPOSE HALL (MPH)

The air-conditioned Multipurpose Hall with a capacity of about 700 audience is used for various purposes like convocation, alumni meet, cultural fest, and indoor games.



#### 6.5. UNIVERSITY HEALTH CENTRE

The mission of the MMMUT Health Centre is to provide students with quality primary health care and education about healthy lifestyles. This Health Centre provides a full range of primary care, treatment, and referral services, as well as related health education programs. All programs and services are aimed at maintaining the physical and emotional well-being of university students.

The Health Centre is located in front of the University Cafeteria. This well-equipped facility provides medical treatment and office consultation space for a variety of outpatient services. This Health Centre provides a variety of services as elaborated below:

#### **Medical Clinic**

The Outpatient/General Medical Clinic is staffed by physicians and nurses. Appointments may be made with a physician or nurse practitioner; walk-in patients are evaluated by nurses. Minor surgical procedures may be performed after evaluation by a physician. Proper dressing is performed afterward. Serious medical conditions and emergencies are given priority in all cases. Emergencies may be referred to the District Hospital/ Medical College or any other area hospitals as warranted.





#### Women's Health

The Women's Health care is provided by all-female staff including a gynecologist and a registered nurse staff with training and experience in gynecology.

#### **Services**

Treatment of women's health issues including routine gynecological examination.

#### Men's Health

A full range of health services for male students is available through this Health Centre.

#### **Sports Medicine**

Medical services in support of the University Athletic Program are provided by an athletic medicine physician-nurse team. The services are offered in Sports Injuries as and when required.

#### **Services:**

The services provided concerning sports injuries include primary care both in and out-of-season, physiotherapy, pre-competition physical examinations, and non-operative orthopedics relating to sports injuries.



To achieve the services mentioned on the previous page, this Health Centre is well equipped with the following human resources and infrastructure:

#### **Doctors**

#### **Allopathic Doctors:**

- 1. Dr. A.K Pandey, MBBS, PGDMCH, M. MED (Family medicine)
- 2. Dr. Reena Banka, MBBS, DGO

#### **Homeopathic Doctor:**

1. Dr. Vijay Shankar Singh, BMS

#### Staff:

- 1. Sri Devendra Kumar Pandey, BPT (Physiotherapist)
- 2. Ms. Prem Tara (Nurse)
- 3. Ms. Geeta (Nurse)

#### **Infrastructure/Facilities:**

- A well-equipped doctor's cabin.
- All desired medicines.
- Four Beds for emergency.
- An up-to-date dressing rooms.
- A well-equipped physiotherapy center.
- An ambulance; round-the-clock availability.



### 6.6. GUEST HOUSE

The University has a Guest House which has a total of six double-bed well-furnished AC rooms. The Guest House facility is available to the external examiners, special invitees/guests of the University as well as to the parents of the students. Prior booking of these rooms can be made by contacting the officer-In charge guest house. The different type of room for stay in the Guest house will be as follows:



Guest of Staff Members

Official Guests (Members of BOM/Academic Council/Court/Finance Committee/Examination Committee/ @ Examiners and Experts)



#### 6.7. CANTEEN AND COFFEE HOUSE

The University has one air-conditioned Cafeteria and a Coffee Day outlet, which offers a very good canteen facility at an affordable price on the campus. It also has a University Canteen near the boy's hostel which remains operational round the clock.





#### 6.8. BANK, POST OFFICE AND ATM

- Fully computerized branch of State Bank of India.
- Two ATMs and Post-Office facility inside the campus @





#### 6.9. TRANSPORT FACILITIES

Eight University buses are available for day scholars to commute to the University and for hostellers to the city of Gorakhpur or any other nearby place. Apart from buses, the University has two staff cars. Also, 02 Battery driven Auto-Rickshaws are available for the hostellers to commute from the University gate to their respective hostels.



# 7 TRAINING AND PLACEMENT CELL

The basic function of the Training & Placement Cell is to search for opportunities for graduate and post-graduate students at the University in various reputed organizations and industries. The Training & Placement Cell is engaged throughout the year in interactions for building up relations among universities and various reputed industries/organizations. The Cell works as a hub for the following services:



Student Counselling & Career Guidance.



The Cell organizes the training and campus recruitment programs for students of all disciplines practical training for the students is arranged by the cell in consultation with and on the basics of availability of seats in different industries/organizations/ firms/ training centers to make the students have strong practical knowledge and to provide them to know the applications of scientific principles industrial training is essential for students as per university norms.









Almost all the eligible and interested students get selected through campus selection. The cell organizes personality development programs and Entrepreneurial development programs to inculcate the habit of learning, development of new skills, team spirit, perseverance, and tolerance for disagreement in them, to make them self-directed, self-motivated, and responsible lifelong learners enrich of vocabulary, pronunciation skills, and extempore, participation in seminars, workshops, mock interviews, and group discussion. The idea behind this is to cater to the needs of the companies that require students to have such personalities who are aware of technological development and who are well equipped to face global challenges have problemsolving capabilities and can communicate across cultures globally. For more information, please visit: http://www. mmmut.ac.in View Placed **Student Management** 



## 8 COUNCIL OF STUDENT ACTIVITIES

The University is strongly committed towards transforming its students into holistic professionals through various extracurricular activities and to do so, the University places special emphasis on student participation in various extra/co-curricular activities. To manage and coordinate such extracurricular activities, the University has a Council of Student Activities (CSA). A Professor level faculty member of the University heads the CSA and is assisted by two Vice Chairmen, an OSD and the Physical Training Instructor (PTI). The Council is further subdivided into various Sub Councils/Cells/ Clubs, prominent of which are the Technical Sub Council, Sports Sub Council, Cultural Sub Council, NSS, NCC etc. which keep the campus vibrant throughout the year. The Sub Councils/Cells/ Clubs are managed by a team of Faculty members and student's office bearers. Students participate in various extra/co-curricular activities at the Department and University level and earn marks/grades for ECA Courses. Besides inhouse activities attracting participation of students from colleges/institutions located in different parts of the country, the University also encourages and provides limited financial support to its students to participate in national level sports/cultural/technical festivals being organized in premier institutions throughout India.

#### **Facilities:**

The Council of Students Activities (CSA) has a brand-new, state-of-the-art sports stadium named 'Shaheed Bandhu Singh Stadium'. The stadium was inaugurated in 2020 by Hon'ble Chief Minister of Uttar Pradesh Shri Yogi Adityanath and has been named after the famous revolutionary of First War of Indian Independence Late Shri Bandhu Singh. Sprawling into 12 acres of land, the stadium has both outdoor as well as indoor facilities. The stadium has a Football ground, a Hockey ground, a Cricket pitch, a grassy ground for Track & Field activities, two indoor Basketball courts, and a Pavilion with 300 seating capacity. In addition to the stadium, facilities for the following indoor/outdoor sports are also available in the University:

- Indoor Sports: Table Tennis, Badminton, Carrom, Chess, and Billiards.
- Outdoor Sports: Separate concrete courts for Skating and Tennis; Another grassy ground for Football, Kabaddi, & Volleyball.
- **Gymnasium :** Separate gymnasium for boys and girls are available which are equipped with all modern facilities.





In addition to the stadium, CSA has a fully air-conditioned auditorium 'Multi-Purpose Hall' (MPH) with seating capacity of 800 persons. The MPH has a 40 x 30 feet stage, two greenrooms, and a robust PA/ audio-visual presentation system. CSA also has a Cultural Ground near the Civil Engineering Department to host open air/outdoor functions.

## 9 HOSTEL FACILITY

The University is residential institution with seven boys' hostels five girls' hostels. The hostels are well furnished with necessary amenities available with in hostel premises. The leased line Internet facility is available for 24x7 hours in every room of each hostel. Students admitted to the University hostels are provided with the necessary furniture. The students are personally responsible for upkeep of the articles issued to them by the warden in sound condition. First year students are provided with three/two-seater rooms as per the availability. Senior students are provided with double and single seated rooms depending upon availability.

- **Boys Hostels :** Raman Bhawan, Subhash Bhawan, Visveswaraya Bhawan, Tagore Bhawan, Ambedkar Bhawan, Tilak Bhawan, Ramanujan Bhawan.
- Girls Hostels: Saraswati Bhawan, Sarojani Bhawan, Kalpna Chawala Bhawan, Kasturaba Bhawan, Savitribai Phule Hostel (New Girls Hostel).







# 10 CAMPUS LIFE AT MMMUT





















# APPENDIX-A

## CERTIFICATE-1(प्रमाण पत्र-1)

## अनुसूचित जाति/अनुसूचित जनजाति (UPSC/UPST/GDSC/GDST)

जिला		दिनांक :
तहसील		
आवेदन क्र.		
प्रमाण पत्र क्र.		
	प्रमाणित किया जाता है कि श्री/श्रीमती/कु	
	सुपुत्र / सुपुत्री / श्री	
	माता का नाम	
	निवासी	
	ग्राम	
	तहसील	
	जिला	
	जाति के व्यक्ति हैं, जिसे संविधान (अनुसूचित जाति) अ आ है) संविधान (अनुसूचित जनजाति, उ.प्र.) आदेश, 1967 के अनुसार अनुसूचित जाति / अनुसृ	
	तुतथा / अथवा उनका परिवार उ.प्र. के ग्राम / मोहल्ला नगर जिला	

जिलाधिकारी/अतिरिक्त जिलाधिकारी/ सिटी मजिस्ट्रेट/परगना मजिस्ट्रेट/तहसीलदार

Note: Certificate will be accepted only in latest U.P. Government format.



### CERTIFICATE-2 (प्रमाण पत्र-2)

### उत्तर प्रदेश के अन्य पिछड़े वर्ग के लिए जाति प्रमाण पत्र का प्रारूप (UPBC/GDSC)

जेला		दिनांक :
तहसील		
आवेदन क्र.		
रमाण पत्र क्र.		
	प्रमाणित किया जाता है कि श्री/श्रीमती/कु	
	सुपुत्र / सुपुत्री / श्री	
	माता का नाम	
	निवासी	
	ग्राम	
	तहसील	
	जिला	
उ.प्र. राज्य की जातियों, अनुसू ग्राप्त है।	- पिछड़ी जाति के व्यक्ति हैं। यह जाति उत्त चेत जनजातियों तथा अन्य पिछड़े वर्गों के लिए आरक्षण) अधिनियम 1994 (यथा संशोधित) की उ	र प्रदेश लोक सेवा (अनुसूचित ानुसूची–एक के अन्तर्गत मान्यता
पूर्वोक्त अधिनिः पेछड़े वर्गों के अनुसूचित जनः इनके माता—पि	ात किया जाता है कि श्री /श्रीमती /कु	नुसूचित जन जातियों और अन्य न्नोक सेवा) (अनुसूचित जातियों, गयी है, से आच्छादित नहीं है।

जिलाधिकारी/अतिरिक्त जिलाधिकारी/ सिटी मजिस्ट्रेट/परगना मजिस्ट्रेट/तहसीलदार

नोट : अभ्यर्थी ध्यान दें कि उ.प्र. के अन्य पिछड़े वर्ग के लिए जाति प्रमाण मार्च 31, 2025 के पश्चात का बना होना आवश्क है क्योंकि क्रीमीलेयर के अन्तर्गत आने वाले अभ्यर्थियों को आरक्षण का लाभ अनुमन्य नहीं है।

**Note:** Certificate will be accepted only in latest U.P. Government format.





सिटी मजिस्ट्रेट/परगना मजिस्ट्रेट/तहसीलदार



## CERTIFICATE-3 (प्रमाण पत्र-3)

## उत्तर प्रदेश सामान्य निवासी के पुत्र/पुत्री (UPGD/GDSC/GDST/GDBC)

(उस जिले के अधिकारी द्वारा प्रमाणित जिस जिले के माता/पिता निवासी है)

जिला			दिनांक :	
तहसी	ल			
आवेदः	न क्र.			
प्रमाण	पत्र क्र.	<u> </u>		
		सम्बन्धित लेखपाल की जांच आख्या दिनांक के आधार प	ार तद्नुसार	
		प्रमाणित किया जाता है कि श्री/श्रीमती/कु.		
		सुपुत्र/सुपुत्री/श्री		
		माता का नाम		
		निवासी		
		ग्राम		
		तहसील		
		जिला		
		प्रदेश का / की निवासी है व उसका वर्तमान पता मकान नम्बर ग्राम / मोहल्ला ल जनपद		
	~	न्त की पुष्टि प्रारूप—1 में आवेदन एवं सत्यापनकर्ता द्वारा उपलब्ध कराई गई सूचना तथा स्ताक्षरी द्वारा उत्तर प्रदेश के इस जनपद का सामान्य निवासी होने विषयक प्रमाण पत्र निर्गत वि	ŭ	
		चित्राधिकारी / श	विग्रिक चित्रारि	ोकारी /

**Note :** Certificate will be accepted only in latest Government format.



## CERTIFICATE-4 ( प्रमाण पत्र-4 ) (Sub-Category UPFF)

उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी के आश्रित के प्रमाणपत्र का प्रपत्र

प्रमाणित किया जाता है कि श्री/श्रीमती (स्वत	तंत्रता संग्राम सेनानी का न	тम)		
निवासी ग्राम	तहसील		नगर	
जिला	उत्तर प्रदेश	लोक सेवा (शारीरिक रूप	। से विकलांग, स्वतंत्रता	संग्राम सेनानी के
आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण	) अधिनियम 1993 के अनु	सार स्वतन्त्रता संग्राम सेना	नी हैं और श्री/श्रीमती/	कु. (आश्रित अभ्यर्थी
का नाम)		पुत्र / पुत्री / पौत्र / अविवाहि	हेत पौत्री उपरांकित अधिर्व	नेयम, १९९३ के ही
प्रावधानों के अनुसार उक्त श्री/श्रीमती (स्वतन	त्रता संग्राम सेनानी)		के आश्रित ह	き
दिनाक		हस्ताक्षर		
स्थान		पूरा नाम एवं पदनाम		
		मुहर (जिला मजिस्ट्रेट की	गे सील)	

Note: Proforma of certificate may be changed according to latest Govt. order.



## CERTIFICATE-5( प्रमाण पत्र-5)

## उत्तर प्रदेश/सेनादल (Sub-Category UPAF)

(अंतिम यूनिट के आफिसर कमान्डिंग / जिला सैनिक कल्याण बोर्ड द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री/श्रीमती (अभ्यर्थी के पिता अथव	ग माता का नाम)
निवासी गाँव/शहर तहसील	जिला
उत्तर प्रदेश, के दिनांक को सेवानिवृत्त (S	uperannuated) युद्ध में मारे गये/अपंग हो गये/उत्तर प्रदेश में वर्तमान
में तैनात है। वे भारतीय थलसेना/जलसेना/वायुसेना के स्थान	दिनांक से
दिनांक तक कार्यरत थे/हैं। अभ्यर्थी De	partment of Ex-Servicemen Welfare, Ministry of Defence,
Government of India द्वारा अधिसूचित प्राथमिकताओ में से प्राथ	मेकता नंबर (Please enter a valid priority number applicable to
this candidates per Govt. order No. F.No.6(1)/2017/D(R	es.II) dated November 30, 2017)
(केवल शब्दों में / only in word) के अंतर्गत अर्ह है।	
दिनांक	यूनिट कमान्डिंग आफिसर के हस्ताक्षर
स्थान	नाम
	मुहर
	3
(जिला मजिस	ट्रेट द्वारा प्रमाणित)
यह प्रमाणित किया जाता है कि श्री / कु. (अभ्यर्थी)	निवासी उत्तर
प्रदेश गाँव/शहर तहसील	जिला
	गये या अपंग हो गये कर्मचारी जो उत्तर प्रदेश के स्थायी निवासी हैं/थे,
के पुत्र / पुत्री हैं अथवा प्रवेश परीक्षा की तिथि को उत्तर प्रदेश भारती	य थलसेना / जलसेना / वायुसेना में कार्यरत थे / हैं।
दिनाक	हस्ताक्षर
स्थान	नाम
	मोहर



## CERTIFICATE-6(प्रमाण पत्र-6)

## (Sub-Category UPHC) काउन्सिलिंग मे जमा करने हेतु

दिव्यांग जन के अधिमान के लिए प्रमाणपत्र (मुख्य चिकित्साअधिकारी द्वारा प्रमाणित)

जिला	दिनांक :
तहसील	
आवेदन क्र.	
प्रमाण पत्र क्र.	
<ol> <li>यह प्रमाणित किया जाता है कि श्री / कु. (अभ्यर्थी)</li> <li>पुत्र / पुत्री श्री (पिता का नाम)</li> </ol>	
(केवल मुख्य चिकित्सा अधिकारी ही कारण लिखें)	
<ol> <li>अभ्यर्थी की उपरोक्त दिव्यांगता को निम्न प्रकार की दिव्यांगता व (कृपया ✓ का निशान लगायें)</li> <li>Type - I: Minimum 40% permanent V</li> </ol>	
Type-II: Minimum 40% permanent Lo	ocomotors disability
Type-III: Minimum 40% permanent S	peech Hearing impairment
3 यह भी प्रमाणित किया जाता है कि उपरोक्त दिव्यांग स्थिति अभ	यर्थी के इन्जीनियरिंग शिक्षा प्राप्त करने में बाधक नहीं होगी।
अभ्यर्थी के हस्ताक्षर	चिकित्साधिकारी के हस्ताक्षर
नाम	नाम
दिनांक	मुहर



## CERTIFICATE-7 ( प्रमाण पत्र-7 )

#### CHARACTER CERTIFICATE FROM THE HEAD OF THE INSTITUTION LAST ATTENDED

Th	is is to certify that Sri/Km.		
ha	s been a bonafide student of from to		and has
pa	ssed/appeared at the		
ex	amination in the year		
Pr	octorial reports:		
1	Has he/she involved himself/herself if any act of indiscipline?	Yes/No	
2	Has he/she been warned, Fined or punished for any act of indiscipline?	Yes/No	
3	Has he/she been restricted or expelled from Hostel of College for any reason?	Yes/No	
4	Has he/she been involved in any act of indiscipline outside the College campus like group clashes or fraction fights etc.	Yes/No	
5	Has he/she been addicted to drugs or intoxicants?	Yes/No	
G	eneral remarks (Please state your assessment of the student)		
Da	nte: Signature		
Na	nme		
De	esignation		



### CERTIFICATE-8(प्रमाण पत्र-8)

#### FORMAT FOR MEDICAL CERTIFICATE

(To be obtained from a Chief Medical Officer or Medical Officer of MMMUT, Gorakhpur)

This certificate has to be submitted at the time of admission in the University

Name of Candidate:				Age:	Sex:	Weighatge:
Roll No.:	iaic.	Catagory		_		
		Category:		Subcate	gory and Rank I	TOSITIOII.
Father's Name:	hz: 4h	vo Candidata)				
(To be filled in l	oy tn	le Candidate)				
L.T.	M.I.			NOISIA	Colour Visio	n:
Height	Weig	ht Chest	Abdomen	VIS	Without glas	s: With glass:
History		Operation	Koch'sColic's		B.P.	
		Seizures	Asthma		Piles	Diabetes
EXAMINATION	N	Pulse	Tonsil		DNS	Hernia
		Pallor	L.Nodes		CSOM	Hydrocele
		Cardiovascular	CNS			
		Respiratory	GIT			
		Genitourinary	Others			
Is the candidate	phys	ically handicapped/Disabled:	(Please tick)	)	Yes/No	
If yes, type of ha	andic	ap/disability:	Type-I: Minimum 40% permanent Visual impairment			
(Please trick ✓ t	he ty	pe of handicap/disability)	Type-II: Minimum 40% permanent Locomoter disability			
			Type-III: M	inimum 4	40% permanent	speech and Hearing impairment
Any other findin	ıg:					
Certified that the	didate is physically fit/unfit/ter	nporally disqual	ified to p	ursue engineerir	ng studies	
Signature of Candidate			Signature of the	issuing	Medical Officer	(with Official stamp)

### CERTIFICATE-9(प्रमाण पत्र-9)

#### UNDERTAKING BY CANDIDATE FOR MEDICAL FITNESS

I certify that I have no such physical handicap/disability which would hinder the pursuit of studies in the Programs in which I am seeking admission. If at any stage it is found that I have a physical handicap/ disability which would hinder the pursuit of studies in the Programs in which I am seeking admission then my admission will be liable to be cancelled. I will produce medical fitness certificate from a C.M.O./C.M.S. at the time of my joining the University.

Dated: Counter Signed by Father/Guardian Signature of the Candidate



## CERTIFICATE-10 ( प्रमाण पत्र-10 )

## अखिल भारतीय सेवा के उ.प्र. कैडर के अधिकारियों / कर्मचारियों हेतु

प्रमाणित किया जाता है कि श्री/श्रीमती	(अभ्यर्थी के माता / पिता का नाम) .		
पद नाम	वभाग का नाम	कैंडर	संख्या
अखिल भारतीय सेवा के उ.प्र. कैंडर के	अधिकारी / कर्मचारी है तथा वर्तमान	न में इस कार्यालय में कार्यरत हैं।	यह प्रमाणपत्र इनके पुत्र/पुत्री
(अभ्यर्थी का नाम)		को मदन मोहन मालवीय प्रौद्यौ	गेकी विश्वविद्यालय में प्रवेश हेतु
प्रदान किया जाता है।			
दिनांक			
विभागाध्यक्ष / कार्यालयाध्यक्ष का हस्ताक्षर			
नाम एवं पद नाम			
मुहर			
	CERTIFICATE-11 (	प्रमाण पत्र-११ )	
(Inc	come Certificate) (काउन्स्	लिंग में जमा करने हेतु)	
क्षेत्रीय भूलेख निरीक्षक तथा लेखपाल की	जांचरिपोर्ट के आधारपर प्रमाणित वि	hया जाता है कि	
आवेदक के अभिभावक/माता/पिता का	नामद्ध सुपुत्र		
निवासी / ग्राम			
नगर	जिला	राज्य	
के स्वयं की मासिक आय रूपया	तथा वा	र्षिक आय रूपया	है।
लेखपाल की रिपोर्ट के अनुसार आय का	स्रोत		है।
स्थान	तह	इसीलदार	
दिनांक			
मुहर			

नोट : अभ्यर्थी ध्यान दे कि उ.प्र. के आर्थिक रूप से कमजोर अभ्यर्थियों के लिए प्रमाणपत्र मार्च 31, 2025 के पश्चात का बना हुआ होना आवश्यक है।



#### कार्यालय-लाप संख्या-1/2019/4/1/2002/का-2/19दी.ती.ा. दिलाक 14 सार्च, 2019 का संलग्नक

### CERTIFICATE - 13A उत्तर प्रदेश सरकार

कायोलय का नाम				
आर्थिक रूप से कमजोर वर्ग के सदस्य द्वारा प्रस्तुत किया जाने वाला आय एवं परिसम्पति प्रमाण-पत्र				
प्रमाण-पत्र संख्या				
विलीय वर्ष 2024-25 के लिए मान्य				
प्रसाणित किया जाता है कि बी/बीमती/कुमारी				
पुव/पति/पुषे गाम/कस्व				
पोस्ट ऑफिस थाना				
सस्यील जिला सम्य				
पित कोड के स्थायी निवासी है, जिनका फोटोग्राफ नीचे अभिप्रमाणित है, आर्थिक स्य र				
कमजोर वर्ग के सदस्य हैं. क्योंकि वितीय वर्ष में इनके परिवार की कुल वर्षिक आय ।				
लाख (आठ लाग्र रुपये मात्र) से कम है। इनके परिवार के स्थामित्य में निम्नतिग्रित में से कोई भी परिसम्पति				
नहीं हैं:-				
1 5 (पाँच) एकड कृषि योग्य भूमि अथवा इससे अपर ।				
II एक हजार यर्ग फीट अथवा इससे अधिक क्षेत्रफल का फ्लैट।				
III अधिसूचित नगरपालिका के अंतर्गत 100 वर्ग गज अथवा इससे अधिक का आवार				
भूखण्ड।				
IV. अधिसूचित नगरपालिका से इतर 200 वर्ग गज अथवा इससे अधिक का आवासीय मुख्यन्छ।				
१. बी/बीमती/कुमारी				
सदस्य हैं, जो अनुसूचित जाति, अनुसूचित जनजाति तथा अन्य पिछडे वर्गो के रूप में अपिसूचित नहीं है।				
हस्तावार (कार्यालय का मुहर सहित				
पूर्व नाम				
अवेदक का प्राप्ति कर्षण व्यव्यास प्रदानाम				
जिलाधिकारी/अतिरिक्त जिलाधिकारी/सिर्ट				
अजिस्ट्रेट/परगना अजिस्ट्रेट/तहसीलटार				

नोट : अभ्यर्थी ध्यान दे कि उ.प्र. के आर्थिक रूप से कमजोर अभ्यर्थियों के लिए प्रमाणपत्र मार्च 31, 2025 के पश्चात का बना हुआ होना आवश्यक है।



### आयोतस-नाप संख्या-3/2019/4/1/2002/का-2/19री सी.-।, दिनांक 14 मार्च, 2019 का संतरनक

### CERTIFICATE-13B आर्थिक रूप से कमजोर वर्ग के लामार्थ स्वंय घोषणा पत्र

#### स्वंय घोषणा पत्र

		रिजय धायणा सन
	म	पुत्र/पुत्री/पुत्री
<b>WH/8</b>	हरवा	ग्रीस्ट ऑफिस
याना	. 2277.5	प्लाक तहसील
जिला		राज्य ने आर्थिक रूप से कमजोर वर्ग के
Chillel	पत्र है	तु आवेदन दिया है, एतद् द्वारा घोषणा करता/करती हूँ :-
	1.	मैं जाति से सम्यन्य रखता/रखती हूँ, जो उत्तर प्रदेश हेतु
अधिस्	चित !	अनुसूचित जाति. अनुसूचित जनजाति एवं अन्य पिछडा वर्ग की सूची में सूचीवद नहीं है।
	2.	मेरे परिचार की कुल श्रीलों (वेतन, कृषि, व्यवसाय, पेशा इत्यादि) से कुल वार्षिक आय
₹		(शस्दों मी) है।
	3.	मेरे परिवार के पास उल्लिखित आय के सियाय अथवा इसके अतिरिक्त अन्यत्र कोई
परिसर	यति ह	नहीं है।
		अयवा
	कई	स्वानों पर स्थित परिसम्पतियों को जोड़ने के पत्पात भी मैं (लाम)
रूप से	क्रमज	तर धर्म के दायरे में आता/आती हूँ।
	4.	मैं धोषणा करता/करती हूँ कि मेरे परिवार की सभी परिसम्पतियों को जोड़ने के पश्चात्
निस्नी	लेखित	में से किसी भी सीमा से अधिक नहीं हैं-
	1	5 (पाँच) एकड कृषि योग्य भूमि अथवा इससे उपर ।
	11	एक हजार वर्ग फीट अथवा इससे अधिक क्षेत्रफल का फलैट।
	ш	अधिसूचित नगरपानिका के अंतर्गत 100 वर्ग गज अथवा इससे अधिक का आवासीय
		ofinoR!
	IV	अधिसूचित नगरपातिका से इतर 200 वर्ग गज अथवा इससे अधिक का आवासीय भूखण्ड।
	म	प्रमाणित करता/करती हूँ कि मेरे द्वारा उपरोक्त जानकारी मेरे जान और विश्वास के अनुसार सत्य है
और व	आदि	कि रूप से कमजोर वर्ग के लिए आरक्षण सुविधा प्राप्त करने हेतु प्राप्ता धारण करता/करती हूँ। यदि
मेरे द	रा दी	गई जानकारी असत्य/गलत पायी जाती है तो मैं पूर्ण रूप में जानता हूँ/ जानती हूँ कि इस
आवेदर	र पा	के आधार पर दिये गये प्रमाण पत्र के द्वारा रीक्षणिक संस्थान में लिया गया प्रवेश/लोक सेवाओं एवं
पदी में	पास	की गई नियुक्ति निरस्त कर दी जायेगी/कर दिया जायेगा अथवा इस प्रमाण पत्र के आधार पर कोई
अन्य	सुविधा	∕लाभ पात किया गया है उससे भी वंचित किया जा सकेगा और इस सम्बन्ध में विधि एवं नियमी
केर अर्थ	ोत से	रे विरुद्ध की जाने वाली कार्यवाही के लिए मैं उत्तरदायी रहूँगा/रहूँगी।
नोट:-	जो ल	ागू नहीं हो उसे काट दें।
		आवेदक/आवेदिका का हम्लाक्षर तथा पूरा नाम।
स्थान	-	

दिनांगः :-



# APPENDIX-B

### UNDERTAKING BY CANDIDATE

(Whose Result of Qualifying Examination is awaited)

	Date:						
I		son/daughter of					
	seeking admission in	hereby					
submit my undertaking that I will produce/submit the	ne evidence of having p	assed the qualifying examination					
securing the minimum passing marks as prescribed by the University by August 31, 2025. I am fully aware that if I							
fail to submit the required document on or before August 31, 2025, my admission will be cancelled and no claim to							
refund the fee will be made by me whatsoever the reason may be.							
(Signature of the parents/guardian	(Signature of the candidate)	nte)					
Name :	Name	:					
Date :	GATE/CUET(PG)/ MET Registration No.	:					
Contact No.:	Contact No.	:					



## APPENDIX-C

#### **SYLLABUS FOR MALAVIYA ENTRANCE TEST (MET)-2025**

#### SYLLABUS FOR M.TECH. CIVIL ENGINEERING

#### **Section 1: Engineering Mathematics**

Linear Algebra: Matrix algebra; Systems of linear equations; Eigen values and Eigen vectors.

**Calculus:** Functions of single variable; Limit, continuity and differentiability; Mean value theorems, local maxima and minima; Taylor series; Evaluation of definite and indefinite integrals, application of definite integral to obtain area and volume; Partial derivatives; Total derivative; Gradient, Divergence and Curl, Vector identities; Directional derivatives; Line, Surface and Volume integrals.

**Ordinary Differential Equation (ODE):** First order (linear and non-linear) equations; higher order linear equations with constant coefficients; Euler-Cauchy equations; initial and boundary value problems.

**Partial Differential Equation (PDE):** Fourier series; Separation of variables; solutions of one-dimensional diffusion equation; first and second order one-dimensional wave equation and two-dimensional Laplace equation.

**Probability and Statistics:** Sampling theorems; Conditional probability; Descriptive statistics – Mean, median, mode and standard deviation; Random Variables – Discrete and Continuous, Poisson and Normal Distribution; Linear regression.

**Numerical Methods:** Error analysis. Numerical solutions of linear and non-linear algebraic equations; Newton's and Lagrange polynomials; numerical differentiation; Integration by trapezoidal and Simpson's rule; Single and multi-step methods for first order differential equations.

#### **Section 2: Structural Engineering**

**Engineering Mechanics:** System of forces, free-body diagrams, equilibrium equations; internal forces in structures; Frictions and its applications; Centre of mass; Free Vibrations of un-damped SDOF system.

**Solid Mechanics:** Bending moment and shear force in statically determinate beams; Simple stress and strain relationships; simple bending theory, flexural and shear stresses, shear center; Uniform torsion, Transformation of stress; buckling of column, combined and direct bending stresses.

**Structural Analysis:** Statically determinate and indeterminate structures by force/ energy methods; Method of superposition; Analysis of trusses, arches, beams, cables and frames; Displacement methods: Slope deflection and moment distribution methods; Influence lines; Stiffness and flexibility methods of structural analysis.

**Construction Materials and Management:** Construction Materials: Structural Steel – Composition, material properties and behavior; Concrete - Constituents, mix design, short-term and long-term properties. Construction Management: Types of construction projects; Project planning and network analysis - PERT and CPM; Cost estimation.

**Concrete Structures:** Working stress and Limit state design concepts; Design of beams, slabs, columns; Bond and development length; Pre-stressed concrete beams.

**Steel Structures:** Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections, plate girders and trusses; Concept of plastic analysis -beams and frames.

#### **Section 3: Geotechnical Engineering**

**Soil Mechanics:** Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils – two - dimensional flow, flow



nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

**Foundation Engineering:** Sub-surface investigations - Drilling bore holes, sampling, plate load test, standard penetration and cone penetration tests; Earth pressure theories - Rankine and Coulomb; Stability of slopes – Finite and infinite slopes, Bishop's method; Stress distribution in soils – Boussinesq's theory; Pressure bulbs, Shallow foundations – Terzaghi's and Meyerhoff's bearing capacity theories, effect of water table; Combined footing and raft foundation; Contact pressure; Settlement analysis in sands and clays; Deep foundations – dynamic and static formulae, Axial load capacity of piles in sands and clays, pile load test, pile under lateral loading, pile group efficiency, negative skin friction.

#### **Section 4: Water Resources Engineering**

**Fluid Mechanics:** Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

**Hydraulics:** Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, hydraulic jump, uniform flow, gradually varied flow and water surface profiles.

**Hydrology:** Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, reservoir capacity, flood estimation and routing, surface run-off models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's Law.

**Irrigation:** Types of irrigation systems and methods; Crop water requirements - Duty, delta, evapo-transpiration; Gravity Dams and Spillways; Lined and unlined canals, Design of weirs on permeable foundation; cross drainage structures.

#### **Section 5: Environmental Engineering**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment.

Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

**Air Pollution:** Types of pollutants, their sources and impacts, air pollution control, air quality standards, Air quality Index and limits.

**Municipal Solid Wastes:** Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/recycle, energy recovery, treatment and disposal).

#### **Section 6: Transportation Engineering**

**Transportation Infrastructure:** Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments.

Geometric design of railway Track – Speed and Cant.

Concept of airport runway length, calculations and corrections; taxiway and exit taxiway design.

**Highway Pavements:** Highway materials - desirable properties and tests; Desirable properties of bituminous paving mixes; Design factors for flexible and rigid pavements; Design of flexible and rigid pavement using IRC codes.

**Traffic Engineering:** Traffic studies on flow and speed, peak hour factor, accident study, statistical analysis of traffic



data; Microscopic and macroscopic parameters of traffic flow, fundamental relationships; Traffic signs; Signal design by Webster's method; Types of intersections; Highway capacity.

#### **Section 7: Geomatics Engineering**

Principles of surveying; Errors and their adjustment; Maps - scale, coordinate system; Distance and angle measurement - Leveling and trigonometric leveling; Traversing and triangulation survey; Total station; Horizontal and vertical curves.

Photogrammetry and Remote Sensing - Scale, flying height; Basics of remote sensing and GIS.

#### SYLLABUS FOR M.TECH. ELECTRICAL ENGINEERING

Measurements and Instrumentation: SI units, standards (R, L, C, voltage, current and frequency), systematic and random errors in measurement, expression of uncertainty - accuracy and precision, propagation of errors, linear and weighted regression. Bridges: Wheatstone, Kelvin, Megaohm, Maxwell, Anderson, Schering and Wien for measurement of R, L, C and frequency, Q-meter. Measurement of voltage, current and power in single and three phase circuits; ac and dc current probes; true rms meters, voltage and current scaling, instrument transformers, timer/counter, time, phase and frequency measurements, digital voltmeter, digital multimeter; oscilloscope, shielding and grounding.

Resistive-, capacitive-, inductive-, piezoelectric-, Hall effect sensors and associated signal conditioning circuits; transducers for industrial instrumentation: displacement (linear and angular), velocity, acceleration, force, torque, vibration, shock, pressure (including low pressure), flow (variable head, variable area, electromagnetic, ultrasonic, turbine and open channel flow meters) temperature (thermocouple, bolometer, RTD (3/4 wire), thermistor, pyrometer and semiconductor); liquid level, pH, conductivity and viscosity measurement. 4-20 mA two-wire transmitter.

Control and Automation: Mathematical modeling and representation of systems, Feedback principles, Block Diagram and signal flow graphs, transient response, steady-state-errors, Bode plot, phase and gain margins, Routh and Nyquist criteria, root loci, design of lead, lag and lead-lag compensators, state-space representation of systems; time-delay systems; mechanical, hydraulic and pneumatic system components, synchro pair, servo and stepper motors, servo valves; on-off, P, PI, PID, cascade, feedforward, and ratio controllers, tuning of PID controllers and sizing of control valves, State space model, Solution of state equations of LTI systems.

**Electrical Circuits:** Voltage and current sources: independent, dependent, ideal and practical; v-i relationships of resistor, inductor, mutual inductance and capacitor; transient analysis of RLC circuits with dc excitation. Kirchoff's laws, mesh and nodal analysis, superposition, Thevenin, Norton, maximum power transfer and reciprocity theorems.

Peak-, average- and rms values of ac quantities; apparent-, active- and reactive powers; phasor analysis, impedance and admittance; series and parallel resonance, locus diagrams, realization of basic filters with R, L and C elements. transient analysis of RLC circuits with ac excitation. One-port and two-port networks, driving point impedance and admittance, open-, and short circuit parameters.

**Electrical Machines:** Single phase transformer: equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three phase induction motors: principle of operation, types, performance, torquespeed characteristics, no-load and blocked rotor tests, equivalent circuit, starting and speed control; Types of losses and efficiency calculations of electric machines.

Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines.

Analog and Digital Electronics: Simple diode circuits: clipping, clamping, rectifiers; Amplifiers: biasing, equivalent circuit and frequency response; oscillators and feedback amplifiers; operational amplifiers: characteristics and applications; single stage active filters, Active Filters: Sallen Key, Butterwoth, VCOs and timers, combinatorial



and sequential logic circuits, multiplexers, demultiplexers, Schmitt triggers, sample and hold circuits, A/D and D/A converters.

**Power System**: Basic concepts of electrical power generation, ac and dc transmission concepts, Models and performance of transmission lines and cables, Economic Load Dispatch (with and without considering transmission losses), Series and shunt compensation, Electric field distribution and insulators, Distribution systems, Per-unit quantities, Bus admittance matrix, Gauss- Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Power factor correction, Symmetrical components, Symmetrical and unsymmetrical fault analysis, Principles of over-current, differential, directional and distance protection; Circuit breakers, System stability concepts, Equal area criterion.

**Power Electronics**: Static V-I characteristics and firing/gating circuits for Thyristor, MOSFET, IGBT; DC to DC conversion: Buck, Boost and Buck-Boost Converters; Single and three-phase configuration of uncontrolled rectifiers; Voltage and Current commutated Thyristor based converters; Bidirectional ac to dc voltage source converters; Magnitude and Phase of line current harmonics for uncontrolled and thyristor based converters; Power factor and Distortion Factor of ac to dc converters; Single-phase and three-phase voltage and current source inverters, sinusoidal pulse width modulation

#### SYLLABUS FOR M.TECH. MECHANICAL ENGINEERING

#### **Section 1: Applied Mechanics and Design**

**Engineering Mechanics:** Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

**Mechanics of Materials:** Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

**Theory of Machines:** Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope.

**Vibrations:** Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

**Machine Design:** Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; principles of the design of machine elements such as bolted, riveted and welded joints; shafts, gears, rolling and sliding contact bearings, brakes and clutches, springs.

#### **Section 2: Fluid Mechanics and Thermal Sciences**

**Fluid Mechanics:** Fluid properties; fluid statics, forces on submerged bodies, stability of floating bodies; control-volume analysis of mass, momentum and energy; fluid acceleration; differential equations of continuity and momentum; Bernoulli's equation; dimensional analysis; viscous flow of incompressible fluids, boundary layer, elementary turbulent flow, flow through pipes, head losses in pipes, bends and fittings; basics of compressible fluid flow.

**Heat-Transfer:** Modes of heat transfer; one dimensional heat conduction, resistance concept and electrical analogy, heat transfer through fins; unsteady heat conduction, lumped parameter system, Heisler's charts; thermal boundary layer, dimensionless parameters in free and forced convective heat transfer, heat transfer correlations for flow over flat plates and through pipes, effect of turbulence; heat exchanger performance, LMTD and NTU methods; radiative



heat transfer, Stefan- Boltzmann law, Wien's displacement law, black and grey surfaces, view factors, radiation network analysis

**Thermodynamics:** Thermodynamic systems and processes; properties of pure substances, behavior of ideal and real gases; zeroth and first laws of thermodynamics, calculation of work and heat in various processes; second law of thermodynamics; thermodynamic property charts and tables, availability and irreversibility; thermodynamic relations.

**Applications:** Power Engineering: Air and gas compressors; vapour and gas power cycles, concepts of regeneration and reheat. I.C. Engines: Air-standard Otto, Diesel, and dual cycles. Refrigeration and air-conditioning: Vapour and gas refrigeration and heat pump cycles; properties of moist air, psychrometric chart, basic psychrometric processes. Turbomachinery: Impulse and reaction principles, velocity diagrams, Pelton-wheel, Francis, and Kaplan turbines; steam and gas turbines.

#### Section 3: Materials, Manufacturing, and Industrial Engineering

**Engineering Materials:** Structure and properties of engineering materials, phase diagrams, heat treatment, stress-strain diagrams for engineering materials.

Casting, Forming and Joining Processes: Different types of castings, design of patterns, moulds and cores; solidification and cooling; riser and gating design. Plastic deformation and yield criteria; fundamentals of hot and cold working processes; load estimation for bulk (forging, rolling, extrusion, drawing) and sheet (shearing, deep drawing, bending) metal forming processes; principles of powder metallurgy. Principles of welding, brazing, soldering and adhesive bonding.

**Machining and Machine Tool Operations:** Mechanics of machining; basic machine tools; single and multi-point cutting tools, tool geometry and materials, tool life and wear; economics of machining; principles of non-traditional machining processes; principles of work holding, jigs and fixtures; abrasive machining processes; NC/CNC machines and CNC programming.

**Metrology and Inspection:** Limits, fits and tolerances; linear and angular measurements; comparators; interferometry; form and finish measurement; alignment and testing methods; tolerance analysis in manufacturing and assembly; concepts of coordinate-measuring machine (CMM).

Computer Integrated Manufacturing: Basic concepts of CAD/CAM and their integration tools; additive manufacturing.

**Production Planning and Control:** Forecasting models, aggregate production planning, scheduling, materials requirement planning; lean manufacturing.

**Inventory Control:** Deterministic models; safety stock inventory control systems.

**Operations Research:** Linear programming, simplex method, transportation, assignment, network flow models, simple queuing models, PERT and CPM.

#### **Section 4: Mechatronics and Industrial Robotics**

**Sensors and Drives:** Sensor characteristics, different types of sensors and transducers, micro sensors, electrical contacts, actuators, and switches, signal processing devices; relays, output devices. Drives: Electrical, Mechanical, Hydraulic & Pneumatic. Automatic Production and Assembly Machines: Transfer lines, Production and throughput, Buffer Storage.

**Robot Kinematics & Gripper Mechanism:** Role of robotics in automated manufacturing system, Robot anatomy. Robot classifications and specifications, Manipulation and Control. Robot kinematics, forward and reverse transformation, homogeneous transformations. Fundamental Rotation matrices, Kinematic modelling of the manipulator, Denavit-Hartenberg Notation.

Robot Manipulators, Actuators and Drives: Robot vision and their interfaces, Machine Vision Applications.



Welding, spray painting and finish coating, Parts Mating & Parts Joining Operations. Types of Robot Manipulators, Application of Robot Manipulators, Construction of a Robot Manipulator.

**Robot Sensors and Robot Safety:** Sensors in Robotics, classification of Robotic sensors, Acoustic sensors Optical Sensors, Pneumatic Sensors. Touch Sensors, Force Sensors, Force Sensing Wrist and its applications. Robot Planning and Installation, Robot Safety, Need of Robot Safety.

#### SYLLABUS FOR M.TECH. ELECTRONICS AND COMMUNICATION ENGINEERING

#### Section 1: Networks, Signals and Systems

Circuit analysis: Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation. Continuous-time signals: Fourier series and Fourier transform, sampling theorem and applications. Discrete-time signals: DTFT, DFT, z-transform, discrete-time processing of continuous-time signals. LTI systems: definition and properties, causality, stability, impulse response, convolution, poles and zeroes, frequency response, group delay, phase delay.

#### **Section 2: Electronic Devices**

Energy bands in intrinsic and extrinsic semiconductors, equilibrium carrier concentration, direct and indirect band-gap semiconductors. Carrier transport: diffusion current, drift current, mobility and resistivity, generation and recombination of carriers, Poisson, and continuity equations. P-N junction, Zener diode, BJT, MOS capacitor, MOSFET, LED, photo diode and solar cell.

#### **Section 3: Analog Circuits**

Diode circuits: clipping, clamping and rectifiers. BJT and MOSFET amplifiers: biasing, ac coupling, small signal analysis, frequency response. Current mirrors and differential amplifiers. Op-amp circuits: Amplifiers, summers, differentiators, integrators, active filters, Schmitt triggers and oscillators.

#### **Section 4: Digital Circuits**

Number representations: binary, integer and floating-point- numbers. Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders. Sequential circuits: latches and flip-flops, counters, shift-registers, finite state machines, propagation delay, setup and hold time, critical path delay. Data converters: sample and hold circuits, ADCs and DACs. Semiconductor memories: ROM, SRAM, DRAM. Computer organization: Machine instructions and addressing modes, ALU, data-path and control unit, instruction pipelining.

#### **Section 5: Control Systems**

Basic control system components; Feedback principle; Transfer function; Block diagram representation; Signal flow graph; Transient and steady-state analysis of LTI systems; Frequency response; Routh-Hurwitz and Nyquist stability criteria; Bode and root-locus plots; Lag, lead and lag-lead compensation; State variable model and solution of state equation of LTI systems.

#### **Section 6: Communications**

Random processes: auto correlation and power spectral density, properties of white noise, filtering of random signals through LTI systems. Analog communications: amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, super heterodyne receivers. Information theory: entropy, mutual information, and channel capacity theorem. Digital communications: PCM, DPCM, digital modulation schemes



(ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

#### **Section 7: Electromagnetics**

Maxwell's equations: differential and integral forms and their interpretation, boundary conditions, wave equation, Poynting vector. Plane waves and properties: reflection and refraction, polarization, phase and group velocity, propagation through various media, skin depth. Transmission lines: equations, characteristic impedance, impedance matching, impedance transformation, S-parameters, Smith chart. Rectangular and circular waveguides, light propagation in optical fibers, dipole and monopole antennas, linear antenna arrays.

#### SYLLABUS FOR M.TECH. COMPUTER SCIENCE AND ENGINEERING/ INFORMATION TECHNOLOGY

#### **Section 1: Engineering Mathematics**

**Discrete Mathematics**: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Monoids, Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.

**Linear Algebra:** Matrices, determinants, system of linear equations, eigenvalues and eigenvectors, LU decomposition. Calculus: Limits, continuity and differentiability. Maxima and minima. Mean value theorem. Integration.

**Probability and Statistics:** Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.

#### **Information Technology**

**Section 2:** Digital Logic Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).

**Section 3:** Computer Organization and Architecture Machine instructions and addressing modes. ALU, data path and control unit. Instruction pipelining, pipeline hazards. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).

**Section 4:** Programming and Data Structures Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.

**Section 5:** Algorithms Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide and conquer. Graph traversals, minimum spanning trees, shortest paths.

**Section 6:** Theory of Computation Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and contex-free languages, pumping lemma. Turing machines and undecidability.

**Section 7:** Compiler Design Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common sub expression elimination.

**Section 8:** Operating System System calls, processes, threads, inter process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

**Section 9:** Databases ER model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.

Section 10: Computer Networks Concept of layering: OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuit-switching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging;



Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

#### SYLLABUS FOR M. TECH. CHEMICAL ENGINEERING

#### **Process Calculations**

Steady and unsteady state mass and energy balances including multiphase, multi-component, reacting and non-reacting systems. Use of tie components; recycle, bypass and purge calculations; Gibb's phase rule and degree of freedom analysis.

#### **Fluid Mechanics**

Fluid statics, surface tension, Newtonian and non-Newtonian fluids, transport properties, shell balances including differential form of Bernoulli equation and energy balance, equation of continuity, equation of motion, equation of mechanical energy, Macroscopic friction factors, dimensional analysis and similitude, flow through pipeline systems, velocity profiles, flow meters, pumps and compressors, elementary boundary layer theory, flow past immersed bodies including packed and fluidized beds, Turbulent flow: fluctuating velocity, universal velocity profile and pressure drop.

#### **Mechanical Operations**

Particle size and shape, particle size distribution, size reduction and classification of solid particles; free and hindered settling; centrifuge and cyclones; thickening and classification, filtration, agitation and mixing; conveying of solids.

#### **Heat Transfer**

Equation of energy, steady and unsteady heat conduction, convection and radiation, thermal boundary layer and heat transfer coefficients, boiling, condensation and evaporation; types of heat exchangers and evaporators and their process calculations; design of double pipe, shell and tube heat exchangers, and single and multiple effect evaporators.

#### **Mass Transfer**

Fick's laws, molecular diffusion in fluids, mass transfer coefficients, film, penetration and surface renewal theories; momentum, heat and mass transfer analogies; stage-wise and continuous contacting and stage efficiencies; HTU & NTU concepts; design and operation of equipment for distillation, absorption, leaching, liquid-liquid extraction, drying, humidification, dehumidification and adsorption, membrane separations (micro-filtration, ultra-filtration, nano-filtration and reverse osmosis).

#### **Chemical Reaction Engineering**

Theories of reaction rates; kinetics of homogeneous reactions, interpretation of kinetic data, single and multiple reactions in ideal reactors, kinetics of enzyme reactions (Michaelis-Menten and Monod models), non-ideal reactors; residence time distribution, single parameter model; non-isothermal reactors; kinetics of heterogeneous catalytic reactions; diffusion effects in catalysis; rate and performance equations for catalyst deactivation

#### **Instrumentation and Process Control**

Measurement of process variables; sensors and transducers; P&ID equipment symbols; process modeling and linearization, transfer functions and dynamic responses of various systems, systems with inverse response, process reaction curve, controller modes (P, PI, and PID); control valves; transducer dynamics; analysis of closed loop systems including stability, frequency response, controller tuning, casca.



# PROGRAMMES OFFERED IN ACADEMIC SESSION 2025-26 AT A GLANCE

S.No.	Category	Programme	Mode of Admission
1.	Undergraduate	B.Tech.	JEE Mains 2025
		B.Tech. (Lateral Entry)	CUET(UG) 2025/CUET(PG) 2025
		BBA	CUET(UG) 2025
		B.Pharm.	CUET(UG) 2025
		B.Pharm. (Lateral Entry)	CUET(UG) 2025
2.	Postgraduate	M.Tech.	GATE/CUET(PG)2025/MET2025*
		M.C.A.	CUET(PG) 2025
		M.B.A.	CAT/CMAT-2025/ CUET(PG)2025
		M.Sc.	CUET(PG)2025/MET-2025*
3.	Ph.D.	Ph.D.	MET-2025*

<sup>\*</sup>MET 2025 stands for Malaviya Entrance Test 2025 which is the admission test conducted by the University.



महामना की सुयश शोभा, तकनीकि की यह तपस्थली। योग-स्थली गुरु गोरक्ष की, बुद्ध की निर्वाण स्थली।।

> दृश्य अनुपम् राप्ती का, मिलती गले रोहिन वलय। ज्ञान मार्गी संत कबिरा की, कृति हुवी मनोहर मधुमय।।

ज्ञान और विज्ञान का, मंदिर मनोरम शुभ्र पावन। शोध के जिज्ञासु करते, सरस्वती का चरण वंदन।।

> मानवता का मंदिर मनोहर, आलोक मय दिव्य सुन्दर। गूंजता परिसर हमारा, सकल विद्या का शंख स्वर।।

नवीनता की खोज में, संलग्न यह विद्या सदन। सुज्ञान के इस कल्पतरु का, करते हैं हम शत-शत नमन।।







63 Glorious Years

#### Contact Details

Postal Address : Chairman, Admission Cell (Undergraduate)
Madan Mohan Malaviya University of Technology (MMMUT),

Deoria Road, Gorakhpur-273010 (UP)

University Website URL : www.mmmut.ac.in:

Counselling Website URL : https://mmmut.admissions.nic.in/

Admission Cell Helpline Numbers : 8765783798, 9235500507, Email Id admission2025@mmmut.ac.in

#### Office Timing

9.30 am to 5.00 pm (Monday to Friday) 9.30 am to 2.00 pm (Saturday)