

### Maharashtra Academy of Engineering & Educational Research, Pune's MAHARASHTRA INSTITUTE OF TECHNOLOGY. PUNE

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## INFORMATION BROCHURE FOR MASTER OF ENGINEERING PROGRAMME

# Note: The entrance test & interview is mandatory for all institute level admission and all admissions of Polymer Engineering and Petroleum Engineering

#### Academic Year 2013 – 2014

Maharashtra Academy of Engineering and Educational Research, Pune (MAEER) was founded in June 1983 with the collective efforts of eminent academicians, scientists, engineers, philosophers, thinkers and other professionals. MAAER's MIT, Pune, is one of the most prestigious engineering colleges in India. It was established in 1983 by dedicated academicians from the field of engineering. Over a period of 28 years, it has acquired a proud name for itself in imparting engineering education at national and international level.

MAAER's MIT, Pune, since its inception, has set a unique tradition of developing a sense of discipline and character amongst the student community, through time tested human values along with all the desired inputs in the respective fields of specialization.

In wake of the fact changing global scenario, the concept of 'Value based Universal Education system' needs to be rigorously promoted if we really want to establish the 'Culture of Peace' in the world. It is based on understanding the role of Science and Spirituality to help and guide all the sections of the society on Social, Political, Economical and even Industrial fronts. The Institute believes in moulding students into "Winning Personalities" by making them "Physically strong, mentally alert, intellectually sharp and spiritually elevated". Management of the Institute believes in Swami Vivekananda's assertion that "Union of Science and Religion / Spirituality alone will bring peace and harmony to the entire mankind".

A UNESCO chair in Human rights, Democracy and Peace has been established at the "World Peace Center" of MIT which is first of its kind in SE Asia. Several programs are organized as a part of this chair. Faculty members and students get as opportunity to listen to many eminent personalities.

The Institute is recognized by the Government of Maharashtra and approved by the All India Council for Technical Education (AICTE). The undergraduate engineering programs of the Institute are accredited for a period of three years by the National Board of Accreditation, New Delhi.

Consistent efforts by the management, faculty members and quality of students have resulted in signing of 21 Memorandum of Understanding (MOU) with MNCs that provide great value addition to the students. Several student centric activities are organized as a part of these MOUs.

The college runs following Post-Graduate Programs in Engineering.

- M.E. (CIVIL CONSTRUCTION & MANAGEMENT)
- M.E. (CIVIL STRUCTURES)
- M.E. (ELECTRONICS DIGITAL SYSTEM)
- M.E. (PETROLEUM)

- M.E. (POLYMER)
- M.E. (COMPUTER ENGINEERING)
- M.E. (INFORMATION TECHNOLOGY)
- M.E. (MECHANICAL DESIGN ENGG.)
- M.E. (MECHANICAL HEAT POWER)

**About Departments:** Information about various departments conducting above programs is given at <a href="https://www.mitpune.com">www.mitpune.com</a>

The college has an enriched library with total books around 48280 including more than 35962 technical books. Library regularly subscribes to 146 technical Journals of which 36 are international titles. Also eight more journals are received gratis, which include three foreign titles. MIT- Central Library has subscribed for the following E resources: IEEE, ASME, ASCE, McGraw Hill, ELSEVIER (Science Direct), ASTM Digital Library Online, EBSCO along with Institutional memberships to IEEE (Society Membership), British Library, Pune, I.I.T Mumbai, Society of Petroleum Engineers, USA, Central Manufacturing Technology Institute, Bangalore, National Safety Council.

#### **RULES & REGULATIONS**

- **1. Authority for Admission:** Director, Executive President and Principal shall be the authority for granting admissions to Post Graduate courses in MAEER"s MIT, Pune.
- **2. a**) Intake sanctioned by the competent authorities such as, AICTE, Govt. of Maharashtra, Pune University and Director of Technical Educations, Maharashtra, is as follows:

Sr.	Name Of the Course	Non	Sponsored	<b>Total Seats</b>
No.		Sponsored		
1	M.E. (Civil – Construction &	13	05	18
	Management)			
2	M.E. (Civil – Structures)	13	05	18
3	M.E. (Electronics – Digital System)	13	05	18
4	M.E. (Petroleum)	13	05	18
5	M.E. (Polymer)	07	03	10
6	M.E. (Computer Engineering)	13	05	18
7	M.E. (Information Technology)	13	05	18
8	M.E. (Mechanical – Design Engg.)	13	05	18
9	M.E. (Mechanical – Heat Power)	13	05	18

**2. b)** MIT will follow admission rules laid down by 'Directorate of Technical Education', Maharashtra State. As per the rule, 80% of seats are filed by centralized procedure on the basis of entrance exam: PGET – CET 2013 and 20% seats will be filled at institute level.

#### 3. Eligibility:

(a) (i) For General Candidate: A candidate may be permitted to register himself for M.E. degree by regular papers in the Subject under Faculty of Engineering of Pune University only if he / she holds a Bachelor's Degree in Engineering/Technology of Pune University in the respective branch or degree in respective branch from any other University, recognized as equivalent thereto by Pune University.

<b>Programmes Offered</b>	Eligibility	Intake
M.E. (Civil –	B. E. / B. Tech. in Civil Engineering/Civil	18
Construction &	Construction and Equivalent	
Management)		
M.E. (Civil – Structures)	B. E. / B. Tech. in Civil Engineering/Civil Construction and Equivalent	18
M.E. (Electronics –	B. E./B. Tech. in Electronic s/ Electronics	18
Digital System)	& Telecommunication / Instrumentation	
	& Control / Industrial Electronics /	
	Computer Engineering & equivalent	
M.E. (Petroleum)	B.E. / B. Tech. in Petroleum / Polymer /	18
	Petrochemical / Chemical / Mechanical /	
	Production / Automobile / Mining /	
	Metallurgical Engineering/	
	Instrumentation Engineering & equivalent	
	courses	
M.E. (Polymer)	Bachelor of Engineering in Polymer,	10
	Petroleum, Petrochemical, Chemical,	
	Mechanical, Production Engineering,	
	Rubber Technology & Plastic Engineering	
M.E. (Computer	B.E/B. Tech in Computer Engineering /	18
Engineering)	Information Technology / Electronics,	
	Electronics &Telecommunication /	
	Electrical Engineering / Instrumentation	
	Engineering	
M.E. (Information	B. E / B. Tech in Computer Engineering /	18
Technology)	Information Technology / Electronics,	

	Electronics &Telecommunication /	
	Electrical Engineering / Instrumentation	
	Engineering	
M.E. (Mechanical –	B. E./B.Tech.in Mechanical Engineering /	18
Design Engg.)	Mechanical Sandwich & equivalent	
M.E. (Mechanical – Heat	B. E./B.Tech.in Mechanical Engineering /	18
Power)	Mechanical Sandwich & equivalent	

#### **AND**

Candidate should have a valid GATE Score. However, if sufficient GATE qualified candidates are not available, then Non – GATE candidates can be considered on the basis of his / her performance in Entrance Test conducted at MIT - Pune. Fresh candidates appeared for B.E. / B. Tech. final examination (With out any Backlog), can also appear for Entrance Test. However, final eligibility will be decided after production of B.E. Marks Sheet.

#### (b) For sponsored candidate, (Employed or work experienced candidates)

i) Candidate will have to appear for entrance test and should have First Class / Higher Second Class in Bachelor degree

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ii) He/she must have two years full time work experience in a Registered Firm / Company / Educational Institute. Non – GATE candidates are required to appear in Entrance Test.

#### 4. Admission Procedure:

Admissions will be effected according to merit list prepared on the basis of valid GATE score in respective branch. Vacant seats due to non-availability of GATE candidates will be offered to Non – GATE Candidates. A written test will be conducted for Non – GATE & Sponsored candidates on **08/7/2013** (**Monday**) as per following Table:

Name of the Course	Time Schedule	Venue
M.E. (Civil –		Civil
Construction &	11.00 am to 1.00 pm	Department
Management)		
M.E. (Civil – Structures)	11.00 am to 1.00 pm	Civil
		Department
M.E. (Electronics –	11.00 am to 1.00 pm	E & TC
Digital System)		Department
M.E. (Petroleum)	11.00 am to 1.00 pm	Petroleum
		Department
M.E. (Polymer)	11.00 am to 1.00 pm	Polymer
		Department

M.E. (Computer	11.00 am to 1.00 pm	Computer
Engineering)		Department
M.E. (Information	11.00 am to 1.00 pm	IT
Technology)		Department
M.E. (Mechanical –	11.00 am to 1.00 pm	Mechanical
Design Engg.)		Department
M.E. (Mechanical – Heat	11.00 am to 1.00 pm	Mechanical
Power)		Department

The written test will be of TWO Hrs. duration carrying 70 marks. The portion for written test will be of BE / B. Tech. Standard. The students should bring calculator, IS Codes, design data/charts, writing material etc. with them. Seating arrangement will be displayed on notice board on the previous day of the Test. Receipt of payment of Rs. 1000/- will be used as Hall Ticket.

A combined merit list, based on maximum 1 00 marks will be prepared as follows:

i) Entrance Test performance: Maximum 70 Marks

ii) Interview: Maximum 30 Marks

#### Branch wise syllabus for M. E. Entrance Test 2013

#### For M.E. (Electronics –Digital System):

Electronic Devices: Device technology: Integrated Circuits fabrication process. Analog Circuits: Amplifiers, Analysis of amplifiers, Simple OP-Amp circuits, Filters, Sinusoidal Oscillators, Function Generators and Wave-shaping Circuits, Power supplies. Digital circuits: Logic Gates, Digital IC families (DTL, TTL, ECL, MOS, CMOS), ADCs, DACs. Semiconductor Memories. Microprocessor (8085) architecture, Programming, Memory, I/O interfacing, Microcontrollers.

Signals and Systems: Sampling theorems. Linear Time-Invariant (LTI) Systems: Signal transmission through LTI systems. Autocorrelation, Power Spectral Density.

*Multimedia:* Multimedia authoring and date representation, Data compression, Computer and Multimedia networks.

Digital Signal Processing: Transforms in DSP, Discrete –time Processing with DFT, Digital Filters

Computer Networks: LAN, WAN, MAN, OSI and TCP/IP

#### For M.E. (Petroleum):

Fundamentals of Petroleum/ Polymer/ Petrochemical/ Chemical/ Mechanical/ Production/ Automobile/ Mining/ Metallurgy engineering.

#### For M.E. (Polymer):

Fundamentals of Polymer / Plastics / Chemical Engg.

#### For M.E. (Computer)

Data Structures &Files, Database Management System, Computer Networks & Security, Computer Organization, Software Engineering, Operating Systems, Analysis of Algorithms.

#### For M.E. (Information Technology)

Data Structures &Files, Database Management System, Computer Networks & Security, Computer Organization, Software Engineering, Operating Systems

#### For M.E. Civil – Structural Engineering:

Applied Mechanics, Strength of Materials, Theory of Structures, Design of Structures, Prestressed Concrete, Concrete Technology, Computer Programs etc.

#### For M.E. (Civil – Construction & Management):

Basic materials of construction, Concrete Technology, Project Management, Construction, Techniques and Machinery, Foundation Engineering, Estimation, Tendering and Valuation.

#### For M.E. (Mechanical – Design Engineering):

Basics of Mathematics, Strength of materials, Engg. Mechanics, Theory of Machines, Dynamics of Machinery, Machine Design, CAD.

#### For M.E. (Mechanical – Heat Power):

Basics of Mechanical Engineering, Applied Thermodynamics, Heat Transfer, Internal Combustion Engine, Refrigeration and Air Conditioning, Fluid Mechanics & Machinery. Note: - Use of calculator, I.S. Codes is allowed. Answer books will be supplied.

#### 5. Interview:

For Non – GATE candidates, interview will be conducted at the time of admissions. Interview / Group Discussion will be conducted on **08/7/2013 for** all non GATE candidates appeared in the written test.

#### NOTE:

- i) For valid GATE Score candidates in respective or allied branches, entrance test is not required and will be placed on top of the merit list.
- ii) Entrance Test & Interview score will be taken into account to decide the merit of Non-GATE & Sponsored candidates.

iii) No reservation is provided in the sponsored category.

#### 6. M.E. Course is a full time course of two years duration.

- 7. Candidate claiming to belong to backward class, SC / ST / NT B / NT C / NT D / OBC will be required to produce a certificate to that effect from appropriate authority. Cast validity certificate from competent authority is also necessary.
- **8.** For any other clarification, candidates are requested to refer <a href="https://www.dte.org.in/me2013/annexuresandproformas">www.dte.org.in/me2013/annexuresandproformas</a>
- **9.** As soon as interview is over and if the candidate is selected for admission he / she will have to deposit the fees in the Bank counter at M.I.T. Pune. Provisional admission will be confirmed only after the production of Chalan endorsed by bank.
- **10.** Fees to be paid at the time of admission (for one year) is as follows:

Sr. No.	Particulars of Fees* per year	Amount (Rs.)
1	Tuition Fees	91,243/-
2	Development Fees	6,387/-
3	Pune University Fee	810/-
4	Insurance premium	222/-
5	Total	98,662/-

<sup>\*</sup>Subject to revision, based on recommendation by Shikshan Shulka Samit

#### **ADMISSION SCHEDULE**

i.	Application forms are available on	20 <sup>th</sup> June 2013
	www.mitpune.com	
ii.	Closing date to submit application forms	1st July 2013
iii.	a. Interview for GATE qualified	3 <sup>rd</sup> July 2013
	b. Candidates Merit List & Payment of fees	4 <sup>th</sup> July 2013
	for GATE Qualified	
iv.	Entrance Test (For Non-GATE Candidates)	8 <sup>th</sup> July 2013
v	Interview (For all Entrance Test appeared	8 <sup>th</sup> July 2013
	Candidates)	

vi. Display of Merit List

vii. Payment of Fees 12<sup>th</sup> July 2013

9<sup>th</sup> July 2013

viii. Commencement of Classes 15<sup>th</sup> July 2013

#### **College Office Timings**

**Monday to Friday :** 10.00 a.m. to 5.45 p.m. **Saturday :** 10.00 a.m. to 3.30 p.m.

For any Queries regarding admission to Petroleum and Polymer Engineering, contact:

Prof. S.J. Naik Prof. (Mrs.) D.S. Marathe

Department of Petroleum Engineering Department of Polymer Engineering

Mobile Number: 9423562681 9822538241

**Cancellation of Admission:** Within 15 days of confirmed admission (with deduction of Rs. 1000/- from the tuition Fees.)

#### 12. OTHER CONDITIONS:

i. The students coming from universities other than the University of Pune will be admitted on their producing the "Eligibility Certificate" from the Registrar, University of Pune. Admission will be confirmed in all such cases only after receipt of Transfer Certificates from the college / Institutes previously attended by the candidate.

- ii. True copies of the certificates, duly certified need to be attached. The original certificate will have to be produced at the time of admission and whenever called for at a later stage.
- iii. If the candidate fails to report for interview, his candidature will be cancelled and the application form fees will not be refunded.

#### 13. Hostel accommodation can not be guaranteed.

- **14.** All candidates for admission to post graduate courses in Engineering /Technology are required to give an undertaking and submit along with application
- 15. A limited number of Scholarships are available for each course from AICTE funds. These Scholarships will be offered to the GATE qualified candidates only, strictly on the basis of GATE Score Merit. However, a GATE qualified candidates does not automatically become eligible to receive a scholarship. The stipend will be paid only after the receipt of the grant from the AICTE, New Delhi.

#### 16. List of Original Documents required at the time of Admission:

- 1. B. E. / B. Tech. Marks Statement.
- (B. E. / B. Tech. appeared students will have to give undertaking applicable)
- 2. SSC Certificate for Date of Birth.

- 3. Leaving or Transfer Certificate from College last attended.
- 4. GATE Score, Marks Memo.
- 5. Bonafide Certificate. To be produced if required.
- 6. Backward Class claiming certificate
- 7. (a) Caste Validity Certificate
  - (b) Caste Certificate
- 8. Sponsorship certificate for employed candidates.
- 9. Experience certificate, employment certificate if any.
- 10. University Migration certificate for students other than Pune University.
- 11. Domicile Certificate
- 12. Gap certificate or affidavit, if there is gap between passing of qualifying examination and ME application.
- 13. Change of maiden name certificate
- 14. Additional Certificates as applicable by DTE ( <a href="http://www.dte.org.in">http://www.dte.org.in</a>) in Proforma A, Proforma B, Proforma D, Proforma E, Proforma F1, Proforma F2, Proforma O, and Proforma I are to be submitted by the candidates.
- 15. Reserved category candidates seeking admission in AY 2013 14, are advised to refer various notifications issued by DTE ( <a href="http://www.dte.org.in">http://www.dte.org.in</a>) from time to time.

Dr. L. K. Kshirsagar

Principal,

Maharashtra Institute of Technology,

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