# PUNJAB ENGINEERING COLLEGE (DEEMED UNIVERSITY)

### CHANDIGARH

## BROCHURE

for

### Admission to 1st Semester of M.E. Courses

2008-2009

Price

At counter (cash): Rs. 250/-By Regd. Book Post: Rs. 300/-

# PUNJAB ENGINEERING COLLEGE (DEEMED UNIVERSITY)

### CHANDIGARH

### BROCHURE

for

### Admission to 1st Semester of M.E. Courses

2008-2009

.....

Location: Sector 12, Chandigarh-160012 EPABX Nos. : 2753051, 2753060, 2753063, 2753064 FAX: (0172) 2745175 Website: <u>www.pec.ac.in</u>

#### **IMPORTANT POINTS**

- 1. Candidates are advised to read the admission brochure carefully before applying for admission.
- **2.** Any clause contained in this brochure is subject to alteration(s) and modification(s) without prior notice.
- 3. This brochure is for information only and does not constitute a legal document.
- 4. Last date for receipt of completed applications forms in the college: 14.07.2008 upto 5 p.m.
- 5. Candidates will be required to submit a separate application form for each programme in which he / she desires to take admission. Application forms can be purchased from the college P.G. Admission counter or downloaded from the college website. The downloaded application forms are to be accompanied by a fee of Rs. 250 in the form of a draft. In case a student is applying to more than one programme, photocopied forms can be used. In that case each additional form must be accompanied by a fee of Rs. 100. All forms submitted by the candidate must be received under the same cover. The total fee may be paid through a single draft. Applications would be submitted centrally at the P.G. Admission Counter before/on the last date for submitting applications.
- 6. A test will be conducted for each programme by the respective teaching departments on Day 1(i.e. 21-07-08), in case it is accepting non-GATE candidates as per a Central Schedule. A category-wise merit list and waiting list for each individual programme will be displayed by 6.00 pm on the day of the test (Day 1) on the glass doors adjacent to the auditorium.
- 7. Admission formalities including checking of original documents would be carried out in each programme by the respective programme admission committee as per the displayed merit list on Day 2(Day of counseling and admission i.e. 22-07-08). Admission of a candidate would be confirmed after the candidate submits fee in the accounts section and a copy of the fee receipt in the respective department on the same day. The admission of those candidates, who do not deposit the original certificates and the prescribed fees in full, immediately after selection, shall stand automatically cancelled and vacancies so caused shall be offered to the candidates next in order of merit. No correspondence or appeals in this connection will be entertained. No time exemption will be given for arranging the money or for bringing the original certificates from another place.
- 8. In case, the candidate fails to submit a copy of the fee receipt in the respective department on Day 2 till 3 p.m., his / her admission would be cancelled. The programme admission committee would update its merit and waiting list and display the new lists on the glass doors adjacent to the auditorium on Day 2 for carrying out admission on Day 3 (Day of operation of waiting lists i.e. 23-07-08), in case there are any vacant seats available. A third round of counseling would be carried out on 23-07-08 afternoon in case there are any vacant seats.
- 9. Candidates shall attend the test/counseling for admission at their own expenses.
- **10.** All admissions to M.E. courses made during the counseling shall be provisional and subject to approval by the Chairman Senate of PEC Deemed University.

#### I COURSES OFFERED

Two years (four semesters) full time programmes leading to the Degree of Master of Engineering are offered in the following disciplines:

- 1. Highways Engineering
- 2. Irrigation and Hydraulics Engineering
- 3. Structural Engineering
- 4. Environmental Engineering
- 5. Electrical Engineering
- 6. Mechanical Engineering
- 7. Electronics Engineering
- 8. Electronics Product Design and Technology (in collaboration with C-DAC, Mohali)
- 9. Industrial Materials and Metallurgical Engineering
- 10. Production & Industrial Engineering
- 11. Computer Science & Engineering.

A limited number of seats in each course are available for part-time students, for whom the duration of the course shall be three years.

#### **II ADMISSION PROCEDURE AND RULES**

- 1. The admission to all the ME courses will be regulated through Graduate Aptitude Test in Engineering (GATE) in the relevant branch. However, non-GATE-qualified students may also be considered for admission to M.E. courses provided seats remain vacant after considering all the GATE-qualified applicants for admission (also see clause 2 below). However, for ME Electronics Engineering, Non-GATE qualified candidates will be eligible for admission only against Sponsored/Part-time seats.
- 2. Candidates, who hold a B.E./B.Tech. Degree in the parent branch pertaining to the ME course to which they are seeking admission and do not have a valid GATE score and candidates of non-parent branches (see Table-2), will be eligible for admission on the basis of their merit in the Entrance Test (See Annexure-I for syllabi) to be conducted by the concerned department of PEC. However, ME Electronic Product Design & Technology candidates from Non-parent branches with valid GATE score do not need to appear in the entrance test.

#### A. Distribution of Seats

- 1. The discipline-wise and category-wise distribution of seats is given in Table -1.
- 2. Out of the seats meant for the candidates sponsored by the Central Government / State Government Autonomous Bodies / Public Limited Companies / AICTE approved institutes, one seat in each of the Civil Engineering (Structures), Environmental Engineering, Electronics Engineering and Mechanical Engineering courses is reserved for the candidates sponsored by the DRDO. However, if any of the seats so reserved remains vacant, it shall be offered to the candidates sponsored by other Central Government / State Government Autonomous Bodies / Public Limited Companies / AICTE approved institutes.

#### Table –1. Distribution of Seats

						Supernumerary Seats	
ME Programme	SC	ST	Handicapped	General	Total	Candidates sponsored by Central/State Govt. Autonomous Bodies/Public Ltd. Companies/ AICTE recognized institutes	Part- time
Highways Engineering	3	1	*	14*	18	3	2
Irrigation and Hydraulics Engineering	3	1	*	14*	18	3	2
Structural Engineering	3	1	*	14*	18	3	2
Environmental Engineering	3	1	*	14*	18	3	2
Electrical Engineering**	4	2	1	18	25	3	2
Electronics Engineering	4	2	1	18	25	3	2
Electronics Product Design and Technology	3	2	1	19	25	3	2
Computer Science & Engineering	4	2	1	18	25	3	2
Mechanical Engineering	3	2	1	19	25	3	2
Industrial Materials and Metallurgical Engineering	2	1	0	15	18	3	2
Production & Industrial Engineering	3	1	1	13	18	3	2

\* Up to a total of 2 seats in the four programmes and wherever a handicapped seat is allotted there would be a corresponding reduction in general seats.

\*\* Specialization in the areas of Power System, Control System and Power Electronics and Drives is allotted on merit basis.

- NOTES: 1. The total number of seats and their subsequent distribution within various categories and branches may be changed without prior notice.
  - 2. Reservation for OBC category shall be subject to the directions of MHRD / Chandigarh Administration at the time of counseling. Please refer to the website <u>www.pec.ac.in</u> for notification in this regard before attending the counseling.

#### **B** Eligibility for admission

A candidate must have obtained a B.E. / B.Tech. Degree from an IIT / AICTE approved college/ a university recognized by UGC in the relevant discipline as given in Table-2. **OR** 

A candidate must have cleared/completed A & B Sections of the Institution of Engineers (India), Calcutta, examination; or I.E.T.E. Graduate Examination conducted by the Institution of Electronics and Telecommunication Engineers, New Delhi, in the relevant branch and must possess at least five years research / professional experience.

The candidate must possess qualifying degree with 60% marks or equivalent CGPA with 5% relaxation for SC/ST and Physically Handicapped category candidates.

#### Additional Requirements for Sponsored/Part-time Candidates

- 1. An applicant for a **Sponsored** seat must have a minimum of two years full time work experience, as on the last date of receipt of completed application form, in the sponsoring organization viz. Central / State Government Autonomous Body / Public Limited Company; or as a teacher in an AICTE approved institute. A sponsored candidate will be considered for admission in the M.E. course for which he / she has been granted permission by his / her parent department / organization. The main activities of the sponsoring organization should relate to the course in which the candidate is seeking admission.
- 2. An applicant seeking **part-time** admission must have a minimum of two years full time work experience, as on the last date of receipt of completed application form, in the sponsoring organization viz. a registered firm/company/industry/educational and research institution/any Government Department or Government Autonomous Organization and will be considered for admission to the specialization for which he / she has been granted permission by his / her parent department.
- 3. Candidates sponsored by Central/State Govt. Autonomous Bodies/Public Ltd. Companies/AICTE approved institutes, for admission to ME Courses, shall be allowed to attend the classes only after they submit the certificate of proceeding on leave from their parent organization.
- 4. If a sponsored/part-time candidate leaves the sponsoring organization during the course of study, his / her name will be deemed to have been removed from the college rolls from the date he / she leaves that organization.

Disci			
Parent	Basis of Inter-se merit	Non-parent branches	Basis of inter-se
Branch(es)		-	merit
Civil	1) GATE Score	-	-
Engineering.	2) Entrance test for non-		
0 0	GATE candidates *		
Civil	-do-	-	-
Engineering			
Civil	-do-	-	-
Engineering			
Civil	-do-	Any degree in	Entrance Test
Engineering		engineering &	
		technology/B.Arch./ MSc	
		in Environment Science	
Electrical	-do-	-	-
Engineering.			
Electronics &	GATE Score	-	-
Electrical			
Engineering			
Electronics &	1) GATE Score	Electrical / Electronics/	1) GATE Score
Electrical	<i>,</i>	Electrical & Electronics/	with priority t
Communication		Electronics &	GATE Score
	GATE candidates	Instrumentation/	parent branch
			2) Entrance test
			for non-GATI
			candidates *
			culturates
	-do-	Electrical/Electronics	Entrance Test
-			
8,			
Mechanical /	-do-	-	-
Metallurgy/	-do-	Mechanical/Production	Entrance Test
Internation & Y/	-40-	Engineering. /MSc.	Entrance 10st
			1
Materials			
		Material Science	
Materials Engineering	do		
Materials Engineering Production/	-do-		-
Materials Engineering Production/ Production &	-do-		-
Materials Engineering Production/	-do-		-
	DisciParentBranch(es)CivilEngineering.EngineeringCivilEngineeringCivilEngineeringCivilEngineeringCivilElectricalEngineering.Electronics &Electronics &Electronics &CommunicationEngineering/Electronics &Electronics &CommunicationEngineeringElectronics &Electronics &Tele-communicationEngineering./Electronics &Electronics &Electronics &CommunicationEngineering/Electronics &Electronics &CommunicationEngineering/Electronics &Computer Sc. /InformationTechnologyMechanical /Aeronautical /Production &IndustrialEngineering	Discipline(s) in which B.E./B.TecParent Branch(es)Basis of Inter-se meritBranch(es)1)GATE ScoreCivil1)GATE ScoreEngineering-do-Engineering-do-Engineering-do-Electrical Communication Engineering-do-Electronics & Electronics & Communication EngineeringGATE ScoreElectronics & Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication Engineering/ Electronics & Communication 	Branch(es)Image: Constraint of the second secon

 Table -2. Parent & Non-parent B.E./B.Tech. Disciplines for various M.E. Courses

\* Also see clause II.1 page 3

#### C. Inter-se Merit for Admission

#### (a) GATE-qualified candidates

- 1. The inter-se merit of the candidates seeking admission to a particular ME course will be decided by their GATE score in the parent branch.
- 2. In case of a tie in GATE scores, the inter-se merit of the candidates will be decided by their score at the qualifying degree level. In case the qualifying degree marks are not available, seventh semester marks / marks at last common level will be the deciding factor for the inter-se merit.
- 3. In case of candidates having the same score both in GATE and qualifying degree / at last common level of comparison, seniority in age will decide their inter-se merit for admission, the oldest among them ranking highest in merit.

## (b) Non GATE-qualified candidates and GATE candidates seeking admission in non-parent branch.

- 1. Their merit will be based on the entrance test to be conducted for the programme by the respective departments. In case of any tie, their qualifying degree merit will be the deciding factor. In case the qualifying degree marks are not available, seventh semester marks / marks at last common level will be the deciding factor for the inter-se merit.
- 2. In case of candidates having the same score both in entrance test and qualifying degree / at last common level of comparison, seniority in age will decide their inter-se merit for admission, the oldest among them ranking highest in merit.

#### **Important Note:**

- 1. Non GATE-qualified candidates shall not be eligible for admission to the M.E. course in Electronics except for the Sponsored / Part-time seats, for which they will have to appear in the entrance test to be conducted by the department.
- 2. ME Electronic Product Design & Technology candidates from Non-parent branches with valid GATE score do not need to appear in the entrance test. In case of a tie in GATE score with a candidate from parent branch, priority would be given to the candidate from the parent branch.

#### D. Procedure for filling up of seats reserved for Physically Handicapped candidates

Applicants will be considered in this category only if the minimum loss of earning capacity due to handicap is 40% according to the criteria laid down in the standards of E.S.I Corporation of India. The candidate should submit, along with the application, a Medical Certificate of handicap, in the prescribed performa, from a Government Gazetted Medical Officer, for preliminary screening. If this certificate is not attached with the application, then the candidate will not be considered against the seats reserved for this category. The candidate will be called for interview on the basis of the certificate attached with the application.

After provisional admission, the candidate will have to appear before the Medical Board constituted by the Principal Medical Officer, Govt. Multi-Speciality Hospital, Sector 16, Chandigarh, for determination of the percentage loss of earning capacity through handicap/disability and for getting a certificate to this effect. This certificate will also indicate the name of the disease causing the handicap; whether the handicap is progressive or non-progressive; and whether the candidate is able to carry on the studies and perform the duties of an engineer. The final admission will be based on this certificate issued by the Medical Board. In case any candidate does not present himself before the Medical Board on the date intimated to him, his /her candidature against this category will be rejected and no subsequent opportunity will be given to him/her.

## An applicant having a temporary or progressive handicap will not be considered for admission against the seats reserved for this category.

If the requisite number of eligible physically handicapped candidates is not available, the unfilled seats belonging to this category will be treated as unreserved and will be filled up from amongst the candidates belonging to the General Pool.

#### E. Procedure for filling up of unfilled sponsored/part-time seats

If the requisite number of eligible sponsored/part time candidates are not available, the unfilled seats belonging to these categories will not be filled since the seats for sponsored / part time candidates are supernumerary over and above the total number of seats.

## F. Procedure for filling up of unfilled seats reserved for Scheduled Castes / Scheduled Tribes candidates

If the requisite number of Scheduled Tribes candidates are not available, unfilled seats belonging to this category will be offered to the Scheduled Castes candidates and vice versa. If some seats belonging to these categories remain vacant even after considering all the SC/ST candidates then such vacant seats will be treated as unreserved and will be filled up from amongst the candidates belonging to the General Pool.

#### **G.** Submission of Applications

- 1. Applications for admission must be filled in the candidate's own handwriting and on the prescribed official application form appended with this brochure / application form or downloaded from the college website. It must be accompanied by the following documents:
  - a) Date of birth (DOB) certificate or High School (Class Ten) Certificate with DOB (Required for all candidates)
  - b) SC/ST Certificate if applicable
  - c) Certificate of Physical Status if applicable
  - d) Sponsorship certificate for sponsored candidates (in the performa prescribed in the application form) if applicable
  - e) GATE score card
  - f) Copies of mark/grade sheets
  - g) No Objection/Relieving Certificate from employer (for employed candidates)
  - h) Migration certificate from the institute attended last
  - i) The Demand draft for the application fee of Rs. 250/- or / and Rs. 100/- as applicable (See clause 5 page 2)

- 2. The certificates attached with the application form should be signed by the authorities mentioned therein under the legible seal of their office. The application should be signed by the candidate at the appropriate places. Incomplete applications or applications not supported by the requisite documents will not be entertained.
- 3. The application should reach the Chairman PG Admissions on or <u>before the closing date and time</u>, as notified in the press. Applications received late will not be entertained. The college does not take any responsibility for the postal delay or loss in transit of the application.

#### H. Leave and Attendance

- 1. Students who are absent from the institute continuously for two weeks without permission from the Head of Department, may not be permitted to continue in the semester and may be asked to drop the semester, unless satisfactory explanation of their absence, as given by them through the Head of Department, is duly accepted by the Chairman Senate.
- 2. If a student does not turn up after winter or summer vacations, his/her name will be sent to Chairman Senate for termination of the programme. If approved by the Senate, his/her name will be removed from the institute rolls with effect from the date on which he actually appeared in the last semester examination.
- 3. If a student does not appear in the end semester examination, then the concerned Head of Department will forward the name of the student for termination to the Chairman Senate.
- 4. Students who are in receipt of the scholarship shall be entitled to a total leave of 30 days in a year without loss of scholarship. They are not entitled for vacation.

#### **Medical Leave**

Leave on medical ground, duly supported by a medical certificate, may be granted to a student up to eight days per semester. Unavailed leave may be carried over to the next semester up to a maximum of eight days. However, at a stretch, the medical leave shall not exceed 15 days. The medical certificate must be obtained from the Medical Officer of a Government Hospital or the Medical Officer of the Institute dispensary.

#### Semester Leave

Semester leave for up to a maximum of two semesters for the ME students may be sanctioned for bonafide reasons. Except for medical reasons, such leave would not normally be sanctioned before a student has completed his/her course requirements and in no case before the student has spent two semesters in the programme. However, on medical considerations such leave may be sanctioned after his/her stay of one semester. Leave for more than one semester at a time will not be granted.

#### I. Scholarships

a) The students admitted to M.E. degree courses with valid GATE result, may get scholarships @Rs.5000/- per month per student subject to the approval of Chairman Senate. The said scholarship shall be in accordance with the procedure and guidelines laid down in this regard. Grant of Scholarship is further subject to the availability of funds and on the fulfillment of conditions for such award.

- b) Every student must submit a formal application for grant of Scholarship in the prescribed form within a week from the date of actually joining the Postgraduate Classes duly attested by the concerned Head of the Department.
  - i. An awardee under post-graduate scholarship scheme will not be allowed to receive additional scholarship or stipend or special allowance from any other source. In case he is in receipt of any such award, the same must be surrendered and the amount received as such should be refunded before the benefit of scholarship is availed of.
  - ii. Good conduct and regularity in attendance are also implied conditions for the continuance of the scholarship.
  - iii. If any candidate is found to be ineligible for the award of the scholarship for any reasons whatsoever including wrong information given by the student concerned, the scholarship will be cancelled and the total amount paid to him will be recovered in lump-sum.
- c) Unauthorized absence from the college will result in forfeiture of scholarship in part or in whole for the period of absence or subsequent to such absence.
- d) A student who has not appeared in the Semester University Examination due to shortage of attendance or otherwise will be debarred from future payment of scholarship.
- e) Unsatisfactory progress/misconduct of a student during the course may result in discontinuation of scholarship.
- f) In order to be eligible to receive the scholarship, the student is required to submit an undertaking on a non judicial stamp paper that in case he / she does not fulfill the conditions as laid down by G.O.I. in their Letter No. F.3-16- (Part-II) 1.2, dated 7th April, 1989 as modified from time to time, he /she will refund the entire amount of scholarship without protest. The conditions to be fulfilled in addition to the general conditions mentioned earlier are:
  - i. He / she will undertake 8 to 10 hours per week of work related to teaching and research activities as assigned by the Head of Department of the Course. For this the Schedule of work may be prepared by the respective Convener/Member Departmental Post graduate Committee (DPGC) within a week from the admission/start of the semester and be sent to the respective Head of the Department for its inclusion in the time-table under intimation to Dean Academic Affairs (DAA).
  - ii. He / she has to secure a first class or equivalent during the first semester, second semester and third semester examinations passing all the subjects of that semester to become eligible for continuance of scholarship during the second, third and fourth semester respectively. Scholarship once discontinued for any reason will not be continued again even if a student secures first class.
  - iii. He / she will not leave the course midway or appear in any competitive examination not related to Engineering and Technology.

#### J. Important Information

1. Minimum of 80 percent of the attendance in each subject is necessary for being admitted to examination in any subject. Besides the students must carry out and acquaint themselves with laboratory and practical work covered during the year, to the satisfaction of the Director. Students are required to pursue their studies regularly and those whose performance in the class tests is not satisfactory are liable to be detained by the Director from appearing in the University Examination. The detailed rules and syllabi of the University Examination are available and every student is advised to get the latest copy of it for his / her guidance.

2. Every student shall be offered theory/ practical papers for examination as per the scheme of examination approved by the Senate of PEC Deemed University.

#### K. FEES AND EXPENSES

The college fees include the following:	
Fees & Registration:	
Admission Fee	Rs. 2500
One time student service fee	Rs. 5000
Refundable Deposit	Rs. 5000
Semester Fee	
-Academic	Rs. 17500
-Student service	Rs. 4500
Total payable at the time of admission for day scholar	<b>Rs. 34500</b>
Additional fee for hostel facilities at the time of admission:	
Refundable security	Rs. 4000
Hostel fees (Annual)	Rs. 9000
Hostel and mess establishment charges (Annual)	Rs. 7000
Mess advance	Rs. 2000
Total additional sum payable for hostel facilities	

Every component of fees is subject to revision by the PEC DEEMED UNIVERSITY from time to time.

NOTE: The given fees structure was for the session 2007-08 and is likely to be revised. Before coming for the counseling, candidates must refer to college website <u>www.pec.ac.in</u> for revised fees for session 2008-09. The candidates should bring with them the revised fee in form of demand draft in favour of Director Punjab Engineering College, Chandigarh payable at Chandigarh / cash on the day of counseling.

#### **Refund Rules**

- 1. Rs. 5000 paid by the student at the time of offer of admission will not be refunded.
- 2. If a student paying the full fee of Rs. 34,500 does not join the institute and applies for refund within 15 days from the date of offer of the admission, only the refundable deposit of Rs. 5000 and the semester fee for student service of Rs. 4500 shall be refunded.
- 3. Except for the refundable deposit of Rs. 5000, no other amount will be refunded if a student applies for refund after 15 days from the date of offer of admission.
- 4. For hostellers, out of total additional deposits of Rs. 22000, the refundable deposit of Rs. 4000 would be refunded at any time the refund is sought by the candidate. The mess advance of Rs. 2000 is refundable only if the student has not reported in the hostel at all.

#### Additional Fees for Students of M.E. (EPDT) Course

A fee of Rs. 1500/- per month in addition to the above shall be payable by each student of M.E. (EPDT) course. It is to be deposited with C-DAC, Mohali (formerly known as CEDT, Mohali).

#### Notes:

- 1. In case a hosteller leaves the hostel at any time to suit his own convenience, the hostel fee paid by him/her will not be refunded.
- 2. Fees will also be charged for the additional period, which a student may have to spend beyond the normal duration of the course.
- 3. For obtaining refund of relevant component of fee deposit, the concerned student should obtain clearance certificate from various College Departments/ Hostels/ Mess/ Office concerned before leaving the college and also intimate the latest address on which the amount of security is to be remitted. However, a clearance certificate is not required if a student has not attended any class till the date of his surrendering the seat and produces a certificate to that effect from the Head of the respective Department.
- 4. Light bulbs in the hostel rooms are not provided or replaced by the college.
- 5. Any student who fails to pay the College dues by the prescribed date may be fined, suspended or ultimately removed from the college rolls.
- 6. If a student surrenders his / her seat only refundable security will be refunded.
- 7. Registration in every semester is mandatory.
- 8. For other details the college prospectus may be seen.
- 9. The deductions for Punjab Engineering College Old Students' Association (PECOSA) shall be made as per request from President PECOSA and shall be credited into the bank account of PECOSA.

#### SYLLABI FOR ENTRANCE TESTS FOR VARIOUS M.E. PROGRAMMES

The test will be objective type with multiple choice questions and of one hour duration.

#### M.E. ELECTRONICS AND EPDT PROGRAMME:

Basic electronics, Digital electronics, 8085 Microprocessor, Communication systems, Electrical machines, 'C' Programming

#### M.E. COMPUTER SCIENCE AND ENGINEERING PROGRAMME:

Data Structures (10%), Programming Languages (C) (25%), SQL for Data Base (10%), Computer Organization (10%), Basic Logic & Digital Circuits (10%), Operating Systems (15%), Discrete Maths (Set Theory & Functions, Linear Algebra, Permutations & Combinations) (20%).

#### M.E. INDUSTRIAL MATERIALS AND METTALURGICAL ENGINEERING PROGRAMME:

Mechanical Testing of metals and alloys - Hardness, Impact test, Tensile Test, Fatigue and Creep Test. Crystal Structure, Poly crystalline materials, Crystals defects; Phase diagrams Fe-C, Cu-Ni, Pb-Sn, Al-Si. Solidification of metals and alloys, Corrosion types and prevention, Basic principles of thermodynamics, Thermodynamics of solutions, Pearlitic, Bainitic and Martensitic – Transformation, Heat treatment of steels- Annealing, Normalizing, Hardening, Tempering, Hardenability, Precipitation Hardening, Melting and Casting - Pouring, Gating & risering, inoculation, shrinkage, melting, furnaces, defects in casting, composites, ceramics - structure, property& applications, Mechanical working of metals, Powder metallurgy.

#### ME ELECTRICAL ENGINEERING PROGRAMME:

Electric circuit concepts, synthesis & analysis. Generation, transmission and distribution of electrical energy. Electric power system protection concepts and apparatus. Analysis of electric power system in steady state and perturbed state. Economic operation and control of power system. Construction, operation and analysis of electrical power apparatus. Electrical engineering materials. Electrical measuring instruments and techniques. Modeling and analysis of physical systems in time and frequency domain. Application and analysis of power electronics devices and circuits in electrical engineering.

#### M.E. PRODUCTION AND INDUSTRIAL ENGINEERING PROGRAMME:

Solid mechanics, Principles of design, Manufacturing technology and Industrial engineering.

## M.E. HIGHWAYS, IRRIGATION AND HYDRAULICS, STRUCTURAL ENGINEERING PROGRAMME:

Building Materials & Construction, Solid Mechanics, Structural Analysis, Design of Steel Structures, Design of Concrete and Masonry Structures, Construction Practice, Planning and Management, Soil Mechanics & Foundation Engg., Water Supply and Waste Water Engg., Surveying, Transportation Engg., Fluid Mechanics and Water Resources Engg.

#### M.E. ENVIRONMENTAL ENGINEERING PROGRAMME:

Water, its importance, Quality and Quantity of water, Sources of water, Water Pollution; Surface and Ground water pollution, Effects of polluted water, Water and waste water treatment. Air pollution, Different air pollutants in atmosphere and their sources and health effects. Fundamentals of noise pollution.

#### M.E. MECHANICAL ENGINEERING PROGRAMME:

Principles of solid mechanics, Principles of fluid mechanics, Principles of Thermodynamics, Manufacturing Sciences, Principles of Design, Basics of Industrial Engg., Theory of Machines.

#### **SCHEDULE OF ME ADMISSIONS FOR SESSION 2008-2009**

## LAST DATE FOR RECEIPT OF APPLICATIONS :14-07-08TEST FOR NON-GATE AND NON-PARENT BRANCH CANDIDATES (Refer Table 2):21-07-08

Sr. No.	Name of Programme to appear in the test	Name of branch of B.E.	Time
1.	Highways Engineering Irrigation & Hydraulics Engg Structural Engineering	B.E. Civil Engg. B.E. Civil Engg. BE. Civil Engg.	9.00 to 10.00 a.m.
	Environmental Engineering	BE. Civil Engg. or any branch of Engg./B.Arch/M.Sc in Environment Science	12.45 to 1.45 p.m.
2.	Industrial Materials & Metallurgical Engineering	Metallurgy, Mechanical Engg, Production Engg., Material Engg., M.Sc. Material Science	9.00 to 10.00a.m.
3.	Computer Science & Engineering	Electrical, Electronics, Comp. Sc. & I.T, "MCA"/ MSE/IT/M.Sc Computer Science	9.00 to 10.00 a.m.
4.	Electronics Engineering	Electronics & Elect Comm. (for part time / sponsored candidates only)	10.15 to 11.15 a.m.
5.	EPDT	Electrical, Electronics, Electrical & Electronics , Electronics & Instrumentation, Instrumentation	10.15 to 11.15 a.m.
6.	Production & Industrial Engineering	Production / Production & Industrial / Mechanical Engg.	10.15 to 11.15 a.m.
7.	Mechanical Engineering	Mechanical, Aeronautical, Production, Production & Industrial Engineering	11.30 a.m. to 12.30 p.m.
8.	Electrical Engineering	Electrical Engineering.	11.30 a.m. to 12.30 p.m.
COUNSELIN DATE OF O	22-07-08 23-07-08		

Note: However the Director PEC reserves the right to change the schedule without prior notice. The candidates are advised to visit PEC website <u>www.pec.ac.in</u> from time to time for any change in the schedule.

The candidates have to produce ORIGINAL DOCUMENTS at the time of counseling. If offered admission, they will be required to deposit the college dues immediately.