

# **Institutional Development Proposal**

**Under Sub-component 1.2**

**Scaling-up Post Graduate Education and Demand Driven  
R&D&I**

**(TEQIP-II)**

**2010**



**PEC UNIVERSITY OF TECHNOLOGY**

**(A Deemed to be University)**

**(Formerly Punjab Engineering College)**

**CHANDIGARH-160 012**

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME  
(TEQIP) (PHASE-II)**

**INSTITUTIONAL DEVELOPMENT PROPOSAL**

**for**

**Sub-Component 1.2: Scaling-up Postgraduate Education and  
Demand-Driven Research & Development and Innovation**

**Part – I**

**Institutional Basic Information**

# Table of Contents

		<b>Page No.</b>
	Certificate of the Head of the Institute	I A
	Minutes of Board of Governors of PEC University of Technology, Chandigarh	I B
<b>S.No</b>	<b>Contents</b>	<b>II-IV</b>
<b>Part I</b>	<b>Institutional Basic Information</b>	
	1.1 Institutional Identity	2
	1.2 Academic Information	3 - 4
	1.3 Faculty Status	5
	1.4 Baseline Details	6 – 7
	1.5 Eligibility Benchmarks	8 - 9
Annexure-I	MHRD Notification for Deemed to be University	10
Annexure-II A	UGC Notification for Deemed to be University	11- 13
Annexure-II B	Certificate of registration of PEC University of Technology, Chandigarh	14
Annexure-III	Accreditation status of UG programmes offered by PEC University of Technology, Chandigarh	15 - 16
Annexure-IV	Accreditation status of PG programmes offered by PEC University of Technology, Chandigarh	17
Annexure-V	Chandigarh Administration Notification regarding academic autonomy	18
Annexure-VI	Notification of Constituent members of Board of Governors of PEC University of Technology, Chandigarh	19 - 20
Annexure-VII	List of PhD Thesis done in the years 2007, 2008 and 2009	21
Annexure-VIII	List of ME Thesis done in the years 2007, 2008 and 2009	22 - 36

## Table of Contents

S.No	Item	Page No.
<b>Part II</b>	<b>Institutional Development Proposals (IDPs)</b>	37
	2.1. Executive summary	38
	2.2.1 SWOT Analysis	39 - 43
	2.2.2 Strategic Planning For Institutional Development	44
	2.2.3 Linkage Between SWOT Analysis & Institutional Proposal	44
	2.3 Specific objectives and expected results of your proposal in terms of, “Scaling-up Postgraduate Education and demand-driven Research & Development and Innovation”.	46
	2.4 Action plan for scaling-up enrollment into Masters and Doctoral programmes include measures to attract qualified students and maintain high quality standards	51 52-52a-52b
	2.5 Action plan for improving collaboration with Industry	53
	2.6 Qualitative improvement in research by Faculty UG Students and Collaborations with Foreign academic Institutions	53-53a-53b
	2.7 Summary of Training Needs Analysis carried out and Faculty Development Plan from the first 18 months to achieve improved competence based on Training Needs Analysis (TNA)	54 – 56 56-a
	2.8 Action plan for training technical and other staff in functional areas	57 - 58
	2.9 Relevance and coherence of institutional development proposal with UT Chandigarh	59
	2.10 Participation of departments/faculty in the proposal preparation and implementation.	59
	2.11 Institutional project implementation arrangements.	60 - 62
	2.12 Institutional project budget in Table No.34.	63
	2.13 Targets against the deliverables given in Table 35.	64 - 65
	2.14 Project Sustainability	66
	2.15 Procurement Plan for the first 18 months for Goods and Civil Works in Table-36 and Consultant Services in Table-37 with budget and timeframe	67 - 70
	2.16 Other information related to special academic achievements as given in Eligibility Proposal of the institution	71 - 124
Annexure - IX	2.16.1. International Publication 2009-10	72-74
Annexure - X	2.16.2. National Publication 2009-10	75-77
Annexure -XI	2.16.3. Book Publication 2007-10	78-79
Annexure - XII	2.16.4. Conference Organized 2007-09	80
Annexure - XIII	2.16.5. Seminar /Workshop Organized 2008-09	81

Annexure - XIV	2.16.6.	Specialized Training Program Conducted 2008-09	82
Annexure -XV	2.16.7.	Short Term Courses Organized	83
Annexure - XVI	2.16.8.	Collaborations /MOUs	84
Annexure - XVII	2.16.9.	Placements through campus (2007-10)	85-87
Annexure - XVIII	2.16.10.	All India Ranking (2008-11)	88-103
Annexure - XIX	2.16.11	Renowned Alumni of PEC University Of Technology	104
Annexure - XX	2.16.12	Industry Interaction through Consultancy (2008-10)	105-118
Annexure - XXI	2.16.13	Extension Lecture (2007-10)	119-122
Annexure- XXII	2.16.14	Sponsored Research projects (2009-10)	123
Annexure- XXIII	2.16.17	In house research projects (2008-10)	124
	2.17	Action Plan for Academic performance of SC/ST/OBC/Academically weak Students as per Table-19	125

# 1. INSTITUTIONAL BASIC INFORMATION

## 1.1 Institutional Identity:

- Name of the Institution : **PEC University of Technology  
Deemed University**  
(Formerly Punjab Engineering College)
- Is the Institution AICTE approved?: MHRD, UGC Approved
- Furnish AICTE approval no. : Deemed to be University  
**(Annexure -I&II)**
- Type of Institution : Govt. funded
- Status of Institution : Autonomous Institute as declared  
( Deemed to be University) under  
section 3 of UGC Act  
**(Annexure -I&II)**
- **Names of Heads of Institution and Project Nodal Officers**

Heads and Nodal Officers	Names	Phone Numbers	Mobile Numbers	F ax Numbers	E-mail Addresses
Head of the Institution (Full time appointee)	Dr Manoj Datta	2753051 2753700 2746074	9779161234	0172- 2745175	director@pec.ac.in, mdatta@pec.ac.in
TEQIP Coordinator TEQIP Co- Coordinator	Dr Uma Batra Dr Tilak Thakur	2753054 2753467	9501013054 9417889236	---do---	deanrp@pec.ac.in tilakthakur@pec.ac.in tilak20042005@yaho o.co.in
<b>Project Nodal Officers for:</b>					
Academic Activities	Dr Sanjeev Sofat	2753053	9814741410	---do---	deanaa@pec.ac.in
Civil Works including Environment Management	Prof.Roshan Lal & Prof . S.K. Suman	2753361 2753059	9888212539 6429273347	---do---	roshanlal@pec.ac.in
Procurement	Dr Tilak Thakur	2753467	9417889236	---do---	tilakthakur@pec.ac.in tilak20042005@yaho o.co.in
Financial Aspects	Mr. Gulshan Mehta	2748198 2753056	8054005668	---do---	ddo@pec.ac.in
Equity Assurance Plan Implementation	Dr Gurnam Singh Dr Sanjeev Sofat	2753052 2753053	98728120703 9814741410	---do---	<u>dd@pec.ac.in</u> deanaa@pec.ac.in

## 1.2 ACADEMIC INFORMATION

### I. (a) Engineering programmes offered in Academic year 2009-10

S. No	Title of programmes	Level	Duration (Years)	Year of Starting	AICTE Sanctioned annual intake	Total Student Strength (2009-10)
1	B.E (Aeronautical Engg.)	UG	4 years	1960	15+2 (NRI)	62
2	B.E (Civil Engg.)	UG	4 years	1947*	60+9 (NRI)	222
3	B.E (Comp Sc. & Engg.)	UG	4 years	1988	30+5 (NRI)	150
4	B.E (Electrical Engg.)	UG	4 years	1947*	60+9 (NRI)	222
5	B.E (Electronics & Electrical Communication)	UG	4 years	1967	60+10(NRI)	301
6	B.E (IT)	UG	4 years	2000	30 +4 (NRI)	135
7	B.E (Mechanical Engg.)	UG	4 years	1947*	60+9 (NRI)	261
8	B.E (Metallurgical Engg.)	UG	4 years	1967	40+6 (NRI)	130
9	B.E (Production Engg.)	UG	4 years	1965	30 +4 (NRI)	101
	<b>Total</b>				<b>385+58(NRI)</b>	<b>1584</b>

### (b) Post Graduate Engineering programmes offered in Academic year 2009-10

S. No	Title of programmes	Level PG	Duration (Years)	Year of startin	AICTE sanctioned annual intake	Total student strength
1	Civil Engg. (Structures)	ME	2 Years	1964	18+ 2 +3	33
2	Civil Engg. (Irrigation &	ME		1959	18+ 2 +3	32
3	Civil Engg. (Highways)	ME		1959	18+ 2 +3	8
4	Environmental Engg.	ME		1989	18+ 2 +3	31
5	Mechanical Engg.	ME		1959	25+ 2 +3	47
6	Electrical Engg.	ME		1959	25+ 2 +3	51
7	Electronics Engg.	ME		1995	25+ 2 +3	36
8	Electronic Product Design & Technology	ME		1996	25*+ 2 + 3	44
9	Industrial Materials & Metallurgy	ME		1996	18+ 2 + 3	18
10	Production Engg.	ME		1995	18+ 2 + 3	22
11	Computer Science & Engg.	ME		2002	25+ 2 +3	51
					<b>233+22+33=288</b>	<b>341*</b>

Each programme is for 18/25 Full Time , +2 Part Time +3 Sponsored students

\*Total Strength counts for both years (first and second) = 341 students

Degree is awarded by PEC Univ. Of Technology but Programme is run by faculty of PEC & CDAC , Mohali.

**(c) Ph.D Programmes offered in Academic year 2009-10**

S. No	Title of programmes	Level Ph.D.	Duration (Years)	Year of Starting	AICTE Sanctioned annual intake	Total student strength
1	Aeronautical Engg.	Ph.D		2006		1
2	Civil Engg.	Ph.D.		2006		6
3	Comp Sc. & Engg.	Ph.D		2006		8
4	Electronics & Electrical Communication.	Ph.D		2006		8
5	Electrical Engg.	Ph.D		2006		5
6	Mechanical Engg.	Ph.D		2006		18
7	Metallurgical Engg.	Ph.D		2006		-
8	Production Engg.	Ph.D		2006		5
9	Chemistry	Ph.D	-	2006	-	7
10	Management	Ph.D		2006		4
11	Mathematics	Ph.D		2006		1
	<b>Total</b>					<b>63*</b>

\*Total Full-time and part-time students admitted in 2009-10 are 15

**II. (a) Accreditation Status of UG programmes**

**(Annexure -III)**

Sl. No	Title of UG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31st March 2010?	Whether "Applied for" as on 31st March 2010?
1	B.E (Aeronautical Engg.)	YES	YES	Accredited
2	B.E (Civil Engg.)	YES	YES	Accredited
3	B.E (Comp Sc. & Engg.)	YES	YES	Accredited
4	B.E (Electrical Engg.)	YES	YES	Accredited
5	B.E (Electronics & Electrical Communication)	YES	YES	Accredited
6	B.E (Information Tech.)	YES	NO	No
7	B.E (Mechanical Engg.)	YES	YES	Accredited
8	B.E (Metallurgical Engg.)	YES	YES	Accredited
9	B.E (Production Engg.)	YES	YES	Accredited



**(b)Accreditation Status of PG programmes**

**(Annexure-IV)**

S1. No	Title of PG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31st March 2010?	Whether “Applied for” as on 31st March 2010?
1	Civil Engg. (Structures)	YES	NO	Applied for as on 12.8.10 *
2	Civil Engg. (Irrigation & Hydraulics)	YES	NO	NotApplied
3	Civil Engg. (Highways)	YES	NO	Not Applied
4	Environmental Engg.	YES	NO	Applied for *
5	Mechanical Engg.	YES	NO	Applied for*
6	Electrical Engg.	YES	NO	Applied for*
7	Electronics Engg.	YES	NO	Applied for*
8	Electronic Product Design & Technology	YES	NO	NotApplied
9	Industrial Materials & Metallurgy	YES	NO	NotApplied
10	Production Engg.	YES	NO	Applied for*
11	Computer Science & Engg.	YES	NO	Applied for*

\* Applied for as on 12.08.2010 Money receipt attached.

**1.3 Faculty Status (Regular/On-Contract Faculty as on March 31<sup>st</sup>, 2010)**

Faculty Rank	No. of Sanctioned Regular Posts	Present Status : Number in Position by Highest Qualification												Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines				
		R	C	R	C	R	C	R	C	R	C	R	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	<b>15=</b> (3+5+7+9+11+13)	16= (2-15)	17=(4+6+8+10+12+14)
<b>Prof</b>	24	10		03	01	00		00						13	11	1
<b>Asst Prof</b>	49	22	01	06		14	02	01						43	06	3
<b>Lect</b>	88	05	-	05	-	40	11	04			01			54	34	11
<b>Total</b>	161	37	01	14	01	54	13	05			01			110	51	15

Prof = Professor, Asst Prof = Assistant Professor, Lec =Lecturer, R= Regular, C=Contract

**1.4 Baseline Data**(all data given for the following parameters must be restricted to engineering disciplines/fields only)

S. No.	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	1988
2	Total women students in all programmes and all years of study in the year 2009-10	337
3	Total SC students in all programmes and all years of study in the year 2009-10	264
4	Total ST students in all programmes and all years of study in the year 2009-10	34
5	Total OBC students in all programmes and all years of study in the year 2009-10	*
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	450
7	Total number of text books and reference books available in library for UG and PG students in the year 2009-10	1,12,180
8	% of UG students placed through campus interviews in the year 2009-10	91%
9	% of PG students placed through campus interviews in the year 2009-10	17%
10	% of high quality under Graduates (>75% marks) in the year 2009-10	34.28%
11	% of high quality postgraduates (>75% marks) in the year 2009-10	36.53 %
12	Number of research publications in Indian refereed journals in the year 2009-10	35
13	Number of research publications in International refereed journals in the year 2009-10	30
14	Number of patents obtained in the year 2009-10	Nil
15	Number of patents filed in the year 2009-10	Nil
16	Number of sponsored research projects completed in the year 2009-10	02
17	The transition rate of students in percentage from 1 <sup>st</sup> year to 2 <sup>nd</sup> year in the year 2009-10 for : (i) all students (ii) SC (iii) ST (iv) OBC	93.35% 90.38% 62.50% *
18	IRG from students fee and other charges in the year 2009-10 (Rs. in lakh)	987.00
19	IRG from externally funded R&D projects, Consultancies in the year 2009-10 (Rs. in lakh)	164.00
20	Total IRG in the year 2009-10 (Rs. in lakh)	1151.00
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. In lakh)	2366
22	Number of Joint publications with National authors in the year 2009-10	03
23	Number of Joint publications with International authors in the year 2009-10	01

24	Number of R&D products commercialized in the year 2009-10	Nil
25	Number of joint MTech programmes with institutions undertaken in the year 2009-10	Nil
26	Number of joint MTech programmes with Industry undertaken in the year 2009-10	01
27	Number of joint PhD with institutions undertaken in the year 2009-10	Nil
28	Number of joint PhD with Industry undertaken in the year 2009-10	Nil
29	Number of joint consultancies undertaken with institutions in the year 2009-10	Nil
30	Number of joint consultancies undertaken with Industry in the year 2009-10	262

\* There is no separate reservation for OBC students till date

**1.5 Institutions to be eligible for participation in the Project under the Sub-component 1.2 must fulfill the following benchmarks:**

**Table-33  
Benchmarks for Institutions to Qualify for Sub-component-1.2**

<b>S. No</b>	<b>Attainment Parameters</b>	<b>Bench - mark values</b>	<b>Institution's response (Yes/No)</b>
1.	Does the institution agree to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> <li>• Implementation of curricular reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through variety of activities</li> <li>• Institutions to fill-up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior functionaries with accountability</li> <li>• Improve student performance evaluation</li> <li>• Improvement performance appraisal of faculty by students</li> <li>• Provide faculty incentive for Continuing Education (CE), consultancy and R&amp;D</li> <li>• Obtaining accreditation</li> </ul>	Yes	Yes
2.	Availability of academic autonomy as recognized by UGC for both UG and PG programmes	Yes	Yes (Annexure-I,IIA, IIB & V)
3.	Presence of Board of Governors with an eminent academician or industrialist as the Chairperson	Yes	Yes (Annexure-VI)
4.	Percentage of eligible UG programmes accredited <del>or applied for</del>	60%	88.89 % (Annexure-III)
5.	Percentage of eligible PG programmes <del>accredited or applied for</del>	40%	63.63% (Annexure-IV)
6.	Cumulative number of PhDs produced in the last three academic years (2007-08, 2008-09 and 2009-10) or Cumulative number of MTech produced in the last three academic years (2007-08, 2008-09 and 2009-10)	5  50	11** (Annexure-VII)  405 (Annexure-VIII)

7.	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	65%	77%***
8.	Percentage of regular faculty with PhD in engineering* as percentage of total faculty	15%	34%****

\* For Special Category States, the desired levels is faculty with PhD in Engineering and Sciences disciplines as percentage of total faculty

\*\* Ph.D work done at PEC under guidance of PEC faculty but Ph.D. awarded by Panjab University to which PEC was affiliated till 2004 .

Total Regular Faculty =110 Total Students=2150

\*\*\*AICTE prescribed student to faculty ratio =15:1

Therefore  $2150/15=143$

Therefore  $110/143 =76.9 =77$

\*\*\*\*Percentage of regular faculty with PhD in engineering\* as percentage of total faculty= $37/110=33.6$

Shastri Bhawan, New Delhi.  
16<sup>th</sup> October 2003

NOTIFICATION

In exercise of the powers conferred by Section 3 of the University Grants Commission Act, 1956, the Central Government, on the advice of the University Grants Commission, hereby declare the Punjab Engineering College, Chandigarh as Deemed to be University for the purpose of the aforesaid Act with immediate effect.

  
(Ravi Mathur)

Joint Secretary to the Government of India

The Manager,  
Government of India Press,  
Meerut (Haryana).

Copy forwarded for information to: -

The Secretary, University Grants Commission, New Delhi.  
The Principal/Director, Punjab Engineering College, Chandigarh - 160009.

"The grant of Deemed to be University to Punjab Engineering College, Chandigarh is subject to the condition that it will adhere to the guidelines / instructions issued by UGC & AICTE from time to time as applicable to Deemed Universities."

The Home Secretary Cum Education Secretary, Education Department, Chandigarh administration, U.T. Sectt., Sector, 9, Chandigarh - 160009.

The Member Secretary, All India Council for Technical Education, I.G. Sports Complex, I. P. Estate, New Delhi - 110002.

All Ministries/Departments of the Government of India.

All State Governments and Union Territories.

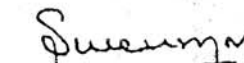
Registrars of all Universities & Deemed Universities.

Press Information Bureau, Shastri Bhawan, New Delhi.

The Secretary-General, Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi 110002.

All officers/sections in Department of Secondary & Higher Education.

Guard file/Coordination Assistant/Notification file/NIC/NIEPA.

  
(P. Sukumar)

Deputy Secretary to the Government of India

526/12/002  
15-12-2002 Annexure II A

**UNIVERSITY GRANTS COMMISSION  
BAHADUR SHAH ZAFAR MARG  
NEW DELHI-110 002.**

No. F. 6-4/2001 (CPP-1)

November, 2003

**NOTIFICATION**

11 DEC 2003

Consequent upon the declaration of the following Colleges/Institutes as Deemed to be University by the Government of India, Ministry of Human Resource Development vide various notifications issued from time to time, the names of the following Colleges/Institutes which were affiliated to different universities in India prior to conferment of Deemed University are deleted from the list of Colleges maintained under Section 2 (f) of the UGC Act

	Names of RECs/Institutes prior to conferment of Deemed University Status which are now to be deleted.	Name of the University under which the RECs/Colleges were affiliated	Name of the RECs/Institutes after conferment of Deemed University Status
1.	Regional Engineering College, Warangal	Kakatiya University	National Institute of Technology, Warangal
2.	Sardar Vallabhbhai Regional Engineering College & Technology, Surat	South Gujarat University	Sardar Vallabhbhai National Institute of Technology, Surat
3.	Regional Engineering College, Kurukshetra	Kurukshetra University, Kurukshetra	National Institute of Technology, Kurukshetra
4.	Regional Engineering College, Hamirpur	H.P. University, Shimla	National Institute of Technology, Hamirpur
5.	Regional Institute of Technology, Jamshedpur (Jharkhand).	Ranchi University, Ranchi	National Institute of Technology, Jamshedpur (Jharkhand).
6.	Regional Engineering College, Srinagar (J & K)	Kashmir University, Srinagar	National Institute of Technology, Srinagar (J & K)
7.	Karnataka Regional Engineering College, Surathkal	Mangalore University	National Institute of Technology, Karnataka, Surathkal.
8.	Regional Engineering College, Calicut	Calicut University	National Institute of Technology, Calicut
9.	Maulana Azad College of Technology, Bhopal	Barkatullah University, Bhopal	Maulana Azad National Institute of Technology, Bhopal
10.	Visvesvaraya Regional College of Engineering, Nagpur	Nagpur University	Visvesvaraya National Institute of Technology, Nagpur

11	Regional Engineering College, Rourkela	Sambalpur University	National Institute of Technology, Rourkela
12	Regional Engineering College, Jalandhar	Guru Nanak Dev University	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar
13	Mulviya Regional Engineering College, Jaipur	Rajasthan University	Malviya National Institute of Technology, Jaipur
14	Regional Engineering College, Tiruchirappalli (T.N).	Bharathidasan University	National Institute of Technology, Tiruchirappalli (T.N).
15	Motilal Nehru Regional Engineering College, Allahabad	Allahabad University	Motilal Nehru Institute of Technology, Allahabad
16	Regional Engineering College, Durgapur	Burdwan University	National Institute of Technology, Durgapur
17	Yashwantrao Mohite College (Arts, Science & Commerce) Pune	University of Pune	Included under the ambit of Bharati Vidyapeeth, Pune
18	Symbiosis Society Law College, Pune.	University of Pune	Included under the ambit of Symbiosis International Educational Centre, Pune.
19	Narsee Monjee Institute of Management Studies, Mumbai.	University of Mumbai	Narsee Monjee Institute of Management Studies, Mumbai.
20	Punjab Engineering College, Chandigarh	Punjab University	Punjab Engineering College, Chandigarh
21	Allahabad Agricultural Institute, Allahabad.	Allahabad University	Allahabad Agricultural Institute, Allahabad.
22	Bengal Engineering College, Howrah	Calcutta University	Bengal Engineering College, Howrah

Yours faithfully,

(Sharanjit Singh)  
Deputy Secretary

Copy to:

1. The Secretary, Government of India, Ministry of Human Resource Development, (Department of Secondary & Higher Education), Shastri Bhawan, New Delhi-110 001.
2. The Deputy Secretary, (NET) UGC, New Delhi.
3. Section Officer (Meetings Cell), UGC, New Delhi.
4. The Joint Secretary (DU), UGC, New Delhi.
5. All Regional Offices of UGC.
6. Senior Statistical Officer, UGC, 35, Ferozshah Road, New Delhi.
7. Section Officer (FD-III Section), UGC, New Delhi.



8. Section Officer (DU Section), UGC, New Delhi.
9. The Registrar, Kakatiya University, Warangal-506 009 (A.P.).
10. The Registrar, South Gujarat University, Surat-395 007 (Gujarat)
11. The Registrar, Kurukshetra University, Kurukshetra (Haryana).
12. The Registrar, I.P. University, Shimla (I.P.).
13. The Registrar, Ranchi University, Ranchi-834 008 (Jharkhand)
14. The Registrar, Kashmir University, Srinagar (J & K).
15. The Registrar, Mangalore University, Mangalore-574 199 (Karnataka).
16. The Registrar, Calicut University, Kozhikode, Calicut-673 635 (Kerala).
17. The Registrar, Barkatullah University, Bhopal-462 026 (M.P.).
18. The Registrar, Nagpur University, Nagpur-440 001 (M.S.).
19. The Registrar, Sambalpur University, Sambalpur-768 019 (Orissa)
20. The Registrar, Guru Nanak Dev University, Amritsar-143 005 (Punjab).
21. The Registrar, Rajasthan University, Jaipur-302 004 (Rajasthan).
22. The Registrar, Bharathidasan University, Tiruchirappalli-620 024 (T.N.).
23. The Registrar, Allahabad University, Allahabad-211 002 (U.P.).
24. The Registrar, Burdwan University, Burdwan-713 104 (W.B.).
25. The Registrar, University of Pune, Ganeskhend, Pune-411 009 (M.S.).
26. The Registrar, University of Mumbai, M.G. Road, Fort, Mumbai-400 032 (M.S.).
27. The Registrar, Punjab University, Chandigarh (Punjab)-160 014.
28. The Registrar, Calcutta University, 87/1, College Street, Kolkata-700 073 (W.B.).
29. The Director, National Institute of Technology, Warangal-506 004 (A.P.).
30. The Director, Sardar Vallabhbhai National Institute of Technology, Surat-395 00 (Gujarat).
31. The Director, National Institute of Technology, Kurukshetra-136 119 (Haryana).
32. The Director, National Institute of Technology, Hamirpur-177 005 (I.P.).
33. The Director, National Institute of Technology, Janashedpur-831 014 (Jharkhand).
34. The Principal, National Institute of Technology, Srinagar (J & K).
35. The Director, National Institute of Technology, Karnataka, Surathkal, P.O. Srinivasnagar-575 025 (Karnataka).
36. The Director, National Institute of Technology, Calicut-673 601 (Kerala).
37. The Director, Maulana Azad National Institute of Technology, Bhopal-462 004 (M.P.).
38. The Principal Visvesvaraya National Institute of Technology, Nagpur-440 011 (M.S.).
39. The Director, National Institute of Technology, Rourkela-769 008 (Orissa).
40. The Director, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar (Punjab)-144 011.
41. The Director, Malviya National Institute of Technology, Jaipur (Rajasthan)-302 017.
42. The Director, National Institute of Technology, Tiruchirappalli-620 015 (T.N.).
43. The Director, Motilal Nehru Institute of Technology, Allahabad-211 004 (U.P.).
44. The Director, National Institute of Technology, Durgapur-713 209 (W.B.).

(Sharanjit Singh)  
Deputy Secretary

CERTIFICATE OF REGISTRATION OF  
SOCIETIES

(ACT XXI OF 1860)

No. 3586 of 2003

I hereby certify that PUNJAB ENGINEERING COLLEGE, CHANDIGARH


has this day been registered under the Societies Registration Act  
(XI of 1860) and as amended by Punjab Amendment Act, 1957.

Given under my hand at Chandigarh this 29/5

by of September Two thousand three

Fee Rs. 50



  
REGISTRAR OF FIRMS & SOCIETIES  
U.T., CHANDIGARH

अखिल भारतीय तकनीकी शिक्षा परिषद  
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाय) (A STATUTORY BODY OF THE GOVT OF INDIA)

राष्ट्रीय प्रत्यायन मंडल (रा.प्र.मं.)  
NATIONAL BOARD OF ACCREDITATION (NBA)

(constituted under clause 10(U) of AICTE Act, 1987)  
(अभातशिव अधिनियम 1987 की धारा 10 (प) के अधीन गठित)

श्री दिनेश  
आहकार-II  
नवता आशवासन  
Dinesh  
ADVISER-II  
Life Assurance Bureau

F.No. NBA/ACCR-415/2004

May 19, 2009

To  
The Principal/ Director  
Punjab Engg. College,  
(Deemed University), Sector - 12,  
Chandigarh - 130001

PEC CHANDIGARH  
(Deemed University)  
RECORD SECTION  
DIARY NO. 2084  
DATED 17/7/09

**Sub :** Accreditation Status of Programme(s) offered by your Institution.

Dear Sir,

With reference to your application for accreditation of the following programme(s) and the Expert Committee's visit to your institution, the report of the visiting team was considered by the various Accreditation Committees. Based on the recommendations of the Accreditation Committees, I am pleased to communicate the Accreditation Status of the following programme(s) offered by your institution.

Sl. No.	Name of UG Programme)	Accreditation Status	Period of validity w.e.f. 05.05.2009
1.	Mechanical Engineering	Accredited	3 Years
2.	Metallurgical Engineering	Accredited	3 Years
3.	Production Engg.	Accredited	3 Years
4.	Electronics & Electrical Communication Engg.	Accredited	3 Years
5.	Electrical Engineering	Accredited	3 Years
6.	Computer Science & Engineering	Accredited	3 Years
7.	Aeronautical Engineering	Accredited	3 Years
8.	Civil Engineering	Accredited	3 Years

(Total number of programmes Accredited vide this letter - Eight)

The Accreditation status awarded to the above programmes of your institution does not imply accreditation to the College/Institution as a whole. Complete name of the Programme Accredited and its period of validity, as well as the date from which the award is effective, should be quoted unambiguously whenever and wherever it is used. The accreditation status of the above programmes is subject to periodic review by the NBA Secretariat and will be changed if major deficiencies are identified on complaints that may be received/ surprise visits/ surveillance. You are also requested to comply with the mandatory disclosure of pertinent information as per the proforma available in the AICTE website with respect to accredited programmes of your institution. The same information should also appear in the website and information bulletin of your institution clearly indicating the date of publication of the same.

Contd.....2

The status awarded to the above programmes of your college / institution is on the presumption that the programmes would maintain the current standards in future. If there are any changes that would effectively alter the status (such as, major changes in faculty strength or changes in the organizational structure, etc.), the same shall be communicated to the undersigned, with an appropriate explanatory note. The strength and weakness as indicated by the expert team is enclosed herewith for your guidance. An appeal of the results conveyed, if you so desire may be made within 30 days of receipt of this communication with requisite fee. Should you have any clarification, please do not hesitate to contact the undersigned

With best regards.

Yours Truly,

(Dr. Dinesh)

C.C. :

1. The Secretary  
Department of Technical Education,  
Govt. of Punjab,  
Mini Secretariat, Sector-9,  
Chandigarh - 160036
2. The Regional Officer,  
AICTE, North Western Regional Office,  
Plot No. 1310, Sector 42-B,  
Chandigarh- 160 036
3. Accreditation File
4. Guard File.

(Dr. Dinesh)



Pan No of AICTE AAAJA1571E  
Name of branch Sec-9, Chd  
Date of Deposit: 12.8.10  
Account To be Credited 0036SLFEECOL  
Institution Name FCAICT  
Student/Applicant Institution Name PEC University of Technology



Roll no/Application No. 14V8701

Class/Region Code N/A  
Section/Course Applied

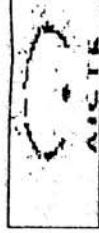
Amount Rs. 1349100  
Amount in Words Rs. \_\_\_\_\_ only

Cash Details acceptable Cash Not Acceptable (Only pay order will be)

Pay order Details  
Pay order No\* 533111  
Drawn on bank State Bank of India  
Drawn at branch PEC, Sector 12 Chandigarh  
Branch Transaction Id

Signature/Stamp ICI Bank Ltd  
Signature of depositor

\* Payorder must be payable at the location of deposit of the instrument.  
(Application will be processed subject to realization of the instrument)  
Total amount payable includes Bank Transaction charges of Rs. 100/-



Pan No of AICTE AAAJA1571E  
Name of branch Sec-9, Chd  
Date of Deposit: 12.8.10  
Account To be Credited 0036SLFEECOL  
Institution Name FCAICT  
Student/Applicant Institution Name PEC University of Technology

Roll no/Application Id 14V8701

Class/Region Code N/A  
Section/Course Applied

Amount Rs. \_\_\_\_\_ only  
Amount in Words Rs. \_\_\_\_\_ only

Cash Details acceptable Cash Not Acceptable (Only pay order will be)

Pay order Details  
Pay order No\* 533111  
Drawn on bank State Bank of India  
Drawn at branch PEC, Sector 12 Chandigarh  
Branch Transaction Id

Signature/Stamp ICI Bank Ltd  
Signature of depositor

\* Payorder must be payable at the location of deposit of the instrument.  
(Application will be processed subject to realization of the instrument)  
Total amount payable includes Bank Transaction charges of Rs. 100/-



No. 13/1/60-IH(3)-2004/ 159664  
Chandigarh Administration  
Home Department

Chandigarh, dated the 27/8/2004

The Director (UG),  
All India Council for Technical Education,  
Indira Gandhi Sports Complex,  
IP Estate, New Delhi

Subject: Extension of AICTE approval to Punjab Engineering College  
Chandigarh for the year 2004-2005.

Sr,

I am directed to refer to your letter No. 765-60-202 (E)/ET/95 dated  
26.7.2004 on the subject noted above and to state that the Punjab Engineering  
College has since been upgraded to that of Deemed University and can legally  
take its own decisions regarding number of seats etc. The seats at Punjab  
Engineering College would not be reduced. However to ensure high technical  
standards, the Administration is taking action to remove the deficiencies.

Yours faithfully,

13-8704  
2-8704  
Despatched  
Chandigarh Administration  
2004/8/27

Joint Secretary Technical Education,  
For Home Secretary,  
Chandigarh Administration.

CHANDIGARH ADMINISTRATION  
HOME DEPARTMENT

No. 13/1/60-IH(3)-2004/ 159664

Dt

27/8/2004

copy is forwarded to the Director (ad-interim),  
Engineering College, Chandigarh for information and necessary

Superintendent Home I,  
for Home Secretary,  
Chandigarh Administration.



Dir

Diary No. 181  
DX 13/5/08

CHANDIGARH ADMINISTRATION  
TECHNICAL EDUCATION DEPARTMENT  
Notification

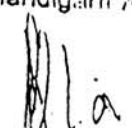
No.11/23/152-IH(10)-2008/ 9690

Dated: Chandigarh, 9/5/2008

The Administrator, Union Territory of Chandigarh is pleased to reconstitute the Board of Governors of the Punjab Engineering College (Deemed University), Chandigarh as per clause 5(A) of the byelaws of the Punjab Engineering College Society as under:-

- |     |   |                                   |
|-----|---|-----------------------------------|
| 1.  | Shri Chandra Mohan,   | Chairperson                       |
| 2.  | Secretary, Technical Education,<br>Chandigarh Administration      | Vice Chairperson<br>(ex-officio)  |
| 3.  | Finance Secretary,<br>Chandigarh Administration                   | ex-officio                        |
| 4.  | Vice Chancellor, Panjab University                                | ex-officio                        |
| 5.  | Joint Secretary, Technical Education<br>Chandigarh Administration | ex-officio                        |
| 6.  | Nominee<br>Ministry of Human Resource Development,<br>New Delhi   |                                   |
| 7.  | Nominee<br>Ministry of Home Affairs, New Delhi                    |                                   |
| 8.  | Nominee<br>University Grants Commission,<br>New Delhi             |                                   |
| 9.  | Director IIT, Delhi or his nominee                                | ex-officio                        |
| 10. | Chairman, CII, Northern Region                                    | ex-officio                        |
| 11. | Director, CSIO, Chandigarh  |                                   |
| 12. | Dr. B. N. Goswamy, Professor, Emeritus,<br>Panjab University.     | } Technologists/<br>Educationists |
| 13. | Dr. D.V. Rai Prof. Deptl. of Biophysics,<br>Panjab University.    |                                   |
| 14. | Shri Sameer Goyal, Head Infosys, Chandigarh                       | } Industrialists                  |
| 15. | Shri B. Mishra, M.D. PTL, Mohali                                  |                                   |
| 16. | Shri Vikram Hans  | Alumnus                           |
| 17. | Director, Punjab Engineering College                              | ex-officio                        |
| 18. | Registrar, Punjab Engineering College                             | Member Secretary<br>(ex-officio)  |

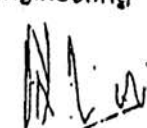
A copy is forwarded to the Controller, Printing & Stationery, Union Territory Chandigarh with the request to publish this Notification in the Chandigarh Administration Gazette and send 20 copies thereof to the Administration for record.

  
Joint Secretary, Technical Education,  
Chandigarh Administration

Endst. No. 11/23/152-IH(10)-2008/ 9692

Dated: Chandigarh, the 9/5/2008


A copy is forwarded to the Director, Punjab Engineering College (Deemed University) Chandigarh for information and necessary action.

  
Joint Secretary, Technical Education,  
Chandigarh Administration

Endst. No. 11/23/152-IH(10)-2008/ 9693

Dated: Chandigarh, the 9/5/2008

A copy is forwarded to all concerned.

  
Joint Secretary, Technical Education,  
Chandigarh Administration



**Ph.D. Theses completed in the last 3 years\*****Ph.D. Thesis (2007)**

<b>S. No.</b>	<b>Name of Candidate</b>	<b>Guide</b>	<b>Title</b>
1.	Trilok Chand	Dr Deepak Bagai	Traffic Control For Unicast And Multicast Available Bit Rate (ABR) Service In Asynchronous Transfer Mode (ATM) Networks
2	Maitreyee Dutta	Dr R.S. Prasad	Speech compression using linear predictive coding based on spilt algorithm.

**Ph.D. Thesis (2008)**

<b>S. No.</b>	<b>Name of Candidate</b>	<b>Guide</b>	<b>Title</b>
1.	Sumandeep Kaur	Dr Vasundhara Singh	Light induced oxidative degradation studies of organic dyes and their intermediates
2.	Darshan Singh	Dr.Tarlochan Sandhu Dr.R.K.Jain	Computation of Magnetic Fields in Electrical by Self Adaptive Finite Element Method
3.	Kashidas Chattopadhyay	Dr. P.S. Satsangi	A Study on Machining Performance of Electrical Discharge Machining with Rotary Electrodes in an Induced Magnetic Field

**Ph.D. Thesis (2009)**

<b>S. No.</b>	<b>Name of Candidate</b>	<b>Guide</b>	<b>Title</b>
1.	Balwinder Singh	Dr. Gurnam Singh	Small Signal Stability Of Power System Through .Coordinated Control Static Shunt Compensator and Thyristor Controlled Dynamic Brake
2.	Sukhdeep Singh	Dr. P.B. Mahapatra	A Simulation Approach to Control Position and Time-Lag in a Pneumatic Actuator Using Fuzzy Logic
3.	H.B.Baruwal	Dr.Jagtar Singh Gill	Development of Motor Ability Tests Battery for Pre-teenagers from different Topography of Nepal
4.	Ms Neelu Jain	Dr Renu Vig	Development of wavelet based data compression techniques for emg signals using victor quantizer with dcr mechanism.
5.	Ms. Sukhbir Kaur	Dr.Vasundhara Singh	Development of Green synthetic methodologies and their applications for the in the preparation of organic compounds
6.	Jafar Ramadhan Mohammed	Dr. Gurnam Singh	Noise reduction and acoustic echo cancellation using adaptive filters in hands-free communication system

\* PhD work done at PEC under guidance of PEC faculty but PhD awarded by Punjab University to which PEC was affiliated till 2004

**2007 : M.E. THESIS**

<b>S. No.</b>	<b>Name of Candidate</b>	<b>Guide</b>	<b>Title of Thesis</b>
<b>Civil Engineering (2007)</b>			
1.	Amit Pal Singh	R.Lal	Structural performance of reinforced concrete opening corner joints
2.	Ankit Dhir	Sarita Singla	Fire resistance of self compacting concrete
3.	Ankush Gupta	Sarita Singla	seismic performance of building by push over analysis method
4.	Bhupinder Singh	N.P Devgan	optimization of shear walls in RCC rigid framed high structure
5.	Deepak Angra	N.P Devgan	Analysis of multi span Arc bridges using NISA software
6.	Harbaldeep Singh	Umesh Sharma	traffic management through signal coordination an external corridor of cosmopolitan city
7.	Inderpreet Singh	R lal	An experimental study on strength and shrinkage properties of self compacting concrete
8.	Manpreet Singh	Anita khanna	Dynamic behaviour of high rise structure using response spectrum and time history method
9.	Mohniti	SC Dhawan	Fully contained steel baffle rangus using armour plate on the lower surface
10.	Netar mani case study	Tripta Goyal	Drainage problem in hill roads their causes and remedial measures A
11.	Nupur Mittal	SC Dhawan	Parametric study of fully contained RLL baffle ranges using armour plate with opern gircles
12.	Pankaj Ganda & Alam	SK Sharma	solid waste management of sirsa A case study
13.	Reepu daman sharma	Sarita Singla	Behaviour of internal dampers in multi-storeyed buildings
14.	Rupinder Pal Kaur	R lal	Study on abrasion resistance of self compacting concrete containing lime stone quarry jims
15.	Sanjeev Kumar Singh	Umesh Sharma & S. John	Evaluation of road alignment a sustainability based approach
16.	Shashi kant Sharma	Sarita Singla	durability of self compacting concrete in aggressive environment
17.	Sushant Singh	SK Sharma	recycling of industrial waste for alterative greener cementing material
18.	Vikas Kashyap satluj	Sharma & Alam	Studies on pollution potential of budha nullah and its impact on river

19. Vikrant Singla	R Lal	An investigation on soil structure in RLL framed buildings
20. Balwinder	Sarita Singla	Optimization of double layer space valts for large span
21. Abha	RK khitoliya & Shakti kumar	Treat ability of dye waste - a case study
22. Abhineet Kaur	RK khitoliya & Shakti kumar	Environmental auditing of dairy industry - A case study
23. Akhil Kumar	RK khitoliya & Geeta arora	Energy audit of a dairy industry - A case study
24. Neeraj Parashar	RK Khitoliya & Shakti kumar	Comprehensive and clinical study of solid waste management system of a modern and planned city of north india

### Computer Engineering (2007)

1.	Ajay Goel	Divya Bansal	RSA Optimization & new methods of Optimization
2.	Anjali Arora	Joydeep Chandra	Design & Implementation of Ecured tree based multicast tree based protocol for mobile adhoc networks
3.	Ankit Bhardwaj	Divya Bansal	An Efficient energy conserving scheme for IEEE 802, 11 Adhoc networks
4.	Asha Rani	Trilok Chand	Congestion control in differtiated services network using neuro fuzzy approcj
5.	Ashish Kumar Gupta	Alka Jindal	Administrative model for RBAC and separation of duly constraint
6.	Brijesh Singh Yadav	Alka Jindal	Trade off between wireless security and its overhead
7.	Deepak Varshney	Rupali Verma	Automatic Rice classification using flatbed scanner & image Analysis +D9
8.	Khushalata	Ajay Mittal	Automatc landmark localization for CEPHALOMETRIC Analysis
9.	Mukesh Kumar	Trilok Chand	Cluster based routing in wireless sensor network
10.	Navneet	Trilok Chand	Performance Evaluation of resource Reservation Protocol
11.	Puyam Subhash Chand	Divya Bansal	Analysis and Implementation of an efficient QOS scheduling Architecture in IEEE 802 16 BWA
12.	Rohit Sethi	Joydeep Chandra	Developing Authentication Strategies for cluster based security arthitecture in mobile adhoc network
13.	Sudesh Rani	Ajay Mittal	Automatic Method for Facial Feature extraction
14.	Sumit Sharma	Sanjeev Sofat	Mutimedia Annotation Generation System
15.	Upinder Kaur	Sanjeev Sofat	Impulse Noise Removal using Fuzzy Logic
16.	Varun Gupra	Shailendra Singh	Performance Analysis of Elliptic Curve Cryptography
17.	Parul Aggarwal	Joydeep Chandra	Implementing Statistical Analysis based effcienit
18.	Harbinder Singh	Sanjeev Sofat	Decentralized interusion detection scheme for manets Face Expression Recogbition using Fuzzy Logic

### Electrical Engineering

1.	Harvinder Singh	Sandeep Kaur	Dynamic Performance Analysis of SSSC using auxiliary regulator
2.	Indpreet Kaur	Balwinder Singh	Power System Stability study using Fuzzy logic Based Controller

3.	Pardeep Singh	Balwinder Singh	To study the effect of dynamic load on syn. Generator stability connected to Infinite Bus
4.	Pooja	Rintu Khanna	Damping of low frequency power system OSC using GA based UPFC in SMIB
5.	Vishal Gogna	Rintu Khanna	Power Quality using UPQC
6.	Ruchi Garg	Ms. Jaimala Gambhir	Economic dispatch problem by using particle swarm optimization
7.	Vipan Kumar	Sulata Bhandari	Fuzzified control of D.C. motor
8.	Ishpreet Kaur	Tilak Thakur	Optimization of Imbalance cost for the commercialization of wind power
9.	Sofia Garg	Tilak Thakur	Analysis of Grid Interactive Solar Photovoltaic Plant for the Conservation of Energy
10.	Surendra Singhal	Mr.S.K.Suman	Analysis & Design of grounding grid for a sub station

### Electronics & Electrical Communication Engineering (2007)

1.	Vikas Bhayana	Dr Neena Gupta	Design and Simulation of high Speed Optical Ring Metropolitan Area Networks
2.	Diveyesh Mohan Saxena	Dr Neena Gupta	Perforamnce Analysis of an OCDMA System Using Wavelength Time Encoding & Decoding
3.	Shashi Bhushan	Ms Neelu Jain	Implementation of Floting Point Arithmetic on FPGA
4.	Shyam Singh Yadav	Ms Neelu Jain	A Low Bit Rate Audio CODEC Using Wavelet Transform
5.	Deepak Kumar	Ms Amita Soni	Gordon Haus Timing Jitter Reduction Analysis for Dispersion Managed Solution System
6.	Anshul Kumar	Gagnesh Kumar	Object Recognition from Background Image
7.	Abhay Kumar	Dr Neelam R. Prakash Dr H K Sardana	Counting and Detection of Counterfeit Currency Note
8.	Ankur Sharma	Dr Neelam R. Prakash	Cardiac Abnormality Decetion by Wavelet Aided Analysis of ECG Signals
9.	Atish Gupta	Sh Dalip Kumar Dr Neelam R. Prakash	Measurement and Data Logging of Enviornmental Constraints (Temperture, Wind Speed, Wind Direction) using Microcontroller.

### Mechanical Engg (2007) 1.

1.	Harvinedr Singh	Dr P S Satsangi	Experimental Investigation of Electrical Discharge Machining of AISI D2 Tool Steel Using Different Electrodes
2.	Karandeep Garg	Dr P S Satsangi	Some Investigations into the Electrical Discharge Machining of EN-8 Steel Using Cooper and Copper-Tungeston Electrodes
3.	Parveen Goyal	Dr P S Satsangi	Electrical Discharge Machining of EN-31 Die Steel Using Composite Electrodes
4.	Vinay Kumar	Dr A K Lall	Some Basic Studies to Understand the Behaviour of Different Blades in the Mixer Juicer Grinder
5.	Bikramjit Singh	Dr A K Lall	Gearbox Housing Analysis of a Multi-utility Vehicle
6.	Pradeep Singh	Prof. Neeraj Singhal	A Study on Model Control of a Cantilevered Beam
7.	Charanjit Singh	Dr V P Singh Prof Sushant Samir	Dynamic Response Study of Pipe
8.	Rupinder Pal Singh	Prof L D Garg	Effect of Various Parameters on the Performance of Combined Cycle
9.	Chandan Prakash	Prof Sanjeev Kumar	A Study of Flexural Vibrations of Plate at Different Boundary Conditions
10.	Gaurav Saxena	Prof Sushant Samir	Delamination Sensing of Laminated Composite

- |     |                  |                             |   |
|-----|------------------|-----------------------------|---|
| 11. | Kanwaljeet Singh | D R Prajapati<br>Dr A Manna | Beam, using smart Materials (Terfenol-D)<br>A Study on Drilling of AL/15% Vol Sic MMC Using<br>Different Drill Bits |
| 12. | Anil Kumar       | Dr S K Mangal               | Study and Analysis of Electro an Magneto<br>Rheological Fluid Dampers   |

**Production Engineering (2007)**

- |    |                      |                         |  |
|----|----------------------|-------------------------|--|
| 1. | Neerja Chaudhary     | Suman Kant              | Job Shop Scheduling Using Ga   |
| 2. | Sandeep Kumar        | Suman Kant<br>R S Walia | Design & Development Of Investigation Of Roller<br>Burnishing Process    |
| 3. | Harmanpreet          | R S Walia               | Development Of FEM Model For EDM Process                                 |
| 4. | Amit Kumar           | Dr Narendra Mohan       | Optimization Of Distortion In Welding                                    |
| 5. | Vikas Yadav          | Dr Narendra Mohan       | Optimization Of MIG Welding Parameters                                   |
| 6. | Gagandeep Singh Gill | Dr R N Nauhria          | Value Stream Mapping For Enhanced Productivity In<br>Automobile Industry |
| 7. | Atul Puri            | Dr R N Nauhria          | Scheduling Cellular Manufacturing Systems                                |
| 8. | Amit Singla          | Dr Parveen Kalra        | Concurrent Tolerance Design  |
| 9. | Sumit Viridi         | Dr Parveen Kalra        | Vendor Selection Using Qfd Approach                                      |

## 2008 : M.E. THESIS

S. No.	Name of Candidate	Guide	Title of Thesis
<b>Civil Engineering (2008)</b>			
1.	Sunpreet Kaur	Dr. R.K. Khitoliya	Hydrogen Production from Biological Raw Waste (Biogas)
2.	Nimrat Kaur Sandhu	Dr. R.K. Khitoliya	Bio Medical waste Management: a Case study of Common Bio Medical Waste
3.	Chetal Goyal	Dr. R.K. Khitoliya	A Study of drinking Water Quality in Som Critical Zones of Chandigarh
4.	Sikander Jailely	Dr. R.K. Khitoliya	Ground Water Contamination by MSW Landfill : A Case study
5.	Tanzin Norgial	Dr. R.K. Khitoliya	A Comparative Study of EIA of Large and Small Dams
6.	Naveen Kumar	Dr. Umesh Sharma	Analysis of P.S. R. of major roads in Chandigarh- A case study.
7.	Handeep Saini	Dr. Umesh Sharma	Non- Destructive Evaluation of an Internal Road of Chandigarh- A critical Study.
8.	Chaudhari Ganpat Maruti	Dr. Tripta Goyal	A study of Traffic Characteristics on National Highway No.22: Zirakpur –Kalka Stretch
9.	Deepak Goyal	Dr.N.P.Devgan	Study of RC Tubular Structure System in Different Seismic Zones.
10.	Navneet Bawa	Prof. Roshan Lal	Structural Behaviour of Reinforced Concrete Corner Joints.
11.	Vipin Verma	Prof. Roshan Lal	A Comparative Study on Seismic Response of Reinforced Concrete Framed Buildings.
12.	Niteesh Jain	Prof. Roshan Lal	An Analytical Investigation on Reinforced Concrete Bridge Deck Analysis using Grillage Analogy.
13.	Ajay Pratap Singh	Prof. Roshan Lal	An Experimental Study on Reinforced Concrete Corner Joints under Opening Moments.
14.	Parmod Kumar	Prof. Roshan Lal	An Investigation on Seismic response of Reinforced Concrete Braced Frames.
15.	Shivani Pal	Prof. Roshan Lal	An Analytical Study on Ductility Considerations in Reinforced Concrete Building Frames.
16.	Shalley Goel	Prof. Sarita Singla	Effect of Rice husk Ash on Mechanical Properties of Concrete.
17.	Shweta Sidhu	Prof. Sarita Singla	Experimental Investigation of Durability of Concrete with Rice husk Ash as Admixture.
18.	Pankaj Verma	Prof. Sarita Singla	Effect of Silica Fumes on the Mechanical Behaviour of High Strength Concrete.
19.	Dhiraj Kumar	Prof. Sarita Singla	To Study Experimentally the Effect of Silica Fumes on the Durability Characteristic of High Strength Concrete.
20.	Esha Goyal	Dr.N.P.Devgan Prof. Sarita Singla	Improving Seismic Performance of Multistoried RCC Building by Base Isolation.
21.	Jaspreet Kaur Mann	Prof. Sarita Singla	Effect of Thermal Shocks on Concrete Exposed to Varying Temperature.
22.	Vikrant Gandotra	Prof. S.C. Dhawan	Parametric Study of Avallanches Control Structures.
23.	Vivek Verma	Prof. Meena Aggarwal Dr. Tripta Goyal	Feasibility study of outer ring road Ludhiana, A case study

### Computer Science & Engineering (2008)

1.	Ashupriya	Dr. Sanjeev Sofat	Denial of Service Attack Detection using Wireless Honey pots
2.	Rajinder Kumar	Dr. Sanjeev Sofat	Secure Routing in Mobile Adhoc Networks
3.	Mayur Gupta	Dr. Sanjeev Sofat	Study and Analysis of Botnet Detection Techniques
4.	Shubham Kumar	Dr. Sanjeev Sofat	Prototype of virtual wireless mesh networks for Lab
5.	Ms. Nutan Sharma	Prof. Bhupinder Singh	Simulation and synthesis of Cryptographic algorithms using VHDL
6.	Aslam Qureshi	Dr. Tirlok Chand	Quality of service using Traffic Balancing in wireless Mesh Network
7.	Surinder Kumar	Dr. Tirlok Chand	Secure and efficient RFID Authentication Protocol
8.	Richa Bansal	Prof. Divya	Non Cryptographic Methods of Spoof Detection in Wireless LANs
9.	Shailendra Tiwari	Prof. Divya	An Efficient Anticipated vertical handover between WiFi and WiMax Networks
10.	Sachin Lallar	Prof. Divya	Study of Security techniques in Wi Max Networks
11.	Sidharth Tiwari	Prof. Divya	Security Enhancement against Web application Vulnerabilities
12.	Kuldeep Singh	Prof. Ajay Mittal	Visual Sound Acoustic Imaging of Sight
13.	Vikas Beniwal	Prof. Ajay Mittal	Image Compression using PCA
14.	Samriti Gupta	Prof. Alka Jindal	A novel approach for ranking web pages through combating web spam
15.	Sucharu Aggarwal	Prof. Alka Jindal	A text driven approach for diviseme based lip synchronized speech
16.	Ritu	Prof. Rupali Sayal	Detection and prevention of disassociation/ deauthentication attacks in Wi-Fi networks
17.	Shailender Hooda	Prof. Richa Jindal	Automatic secure image cryptography at remote web server based on watermarking
18.	Prabhjant Singh	Prof. Richa Jindal	Route optimization in mobile ad-hoc networks using genetic algorithms and AHP
19.	Navdeep Kaur	Prof. Richa Jindal	Performance analysis & enhancement of ad-hoc routing protocol-DSR
20.	Amandeep Kaur	Sanjeev Sofat	Implementation of wireless lan using infrared technology
21.	Ashu Bansal	Bhupendra singh	Intelligent filling station of body using microcontroller
22.	Jatinder Kumar	Shaliendra singh	Verification and authentication of printed legal documents
23.	Varun Prakash	Bhupendra singh	Embedded system application for efficeient industry based control of manufacturing
24.	Sikander Singh	Trilok Chandra	Scalable energy efficeient ADOV routing protocol in wireless mesh network
25.	Tushar Kapoor	.Joydeep Chandra	Ethical spoofing- A cross layer counter measure to jellyfish attack in MANETS
28.	Suman Lata Sharma	Trilok Chandra	SWARM intelligence BASED

### Electrical Engineering (2008)

1.	Deeksha Aggarwal	Sandeep Kaur	Power Quality Improvement using distributed shunt compensation
2.	Mandeep Kumar	Sandeep Kaur	Modelling & Simulation of permanent magnet synchronous motor drive system

3.	Rajni Singla	Rintu Khanna	Environmentally constrain Economic Dispatch using Simple and Refined Genetic Algorithm
4.	Harjeet Kaur	Rintu Khanna	Fuzzy decision making for three phase symmetrical and unsymmetrical fault classification
5.	Deepti Gupta	Jaimala Gambhir	Analysis, Modelling and Simulation of Automatic Peak Power Tracker for direct coupled stand alone photovoltaic System
6.	Sunny Goyal	Jaimala Gambhir	Fault Tolerance clearance of Induction motor in Hybrid Electric Vehicles
7.	Gurpreet Kaur Walia	Balwinder Singh	Simulation of Fuzzified Gyroscopic control of Biwheel Vehicle
8.	Anjini Duggal	Balwinder Singh	Optimal size of location of compensator using G.A
9.	Shivani Prasher	Sulata Bhandari	Design and Analysis of a Digital filter for biomedical application
10.	Amandeep Singla	Sulata Bhandari	Position Controller design for permanent magnet synchronous motor
11.	Vishal	Rashmi Vikal	Fuzzy logic based power system stabilizer
12.	Deepti Vashista	Tarlochan Kaur	Determination of location of shunt compensator for enhancing power transmission capability
13.	Parul Kaushal	Tarlochan Kaur	Improvement in voltage profile and performance of power transmission systems using static var compensators (SVC)
14.	Neeraj Gupta	Puneet Chawla	The Hardware and Software Interface of a PLC to an Industrial Process Control System
15.	Rahul Gupta	Darshan Singh	GSR Measuring Monitoring and Control Systems
16.	Kunal Mittal	Darshan Singh	PID Controller Based Radiant Heat Warmer
17.	Anubhav Sharma	Raminder Kaur	Simulation of protection system for DC distribution systems
18.	Sumit Singla	Loveleen Kaur	Solution to unit commitment problem using Matlab & Optimization Technique
19.	Narinder Singh	Loveleen Kaur	Facts Controller
20.	Deepti Vaidya	Shiv Narayan	Structure specified optimal controller design using multiobjective optimization with Genetic Algorithm
21.	Hardeep Kaur	Shiv Narayan	Design of Optimal Robust Controllers Using Simulated Annealing
22.	Swetla Barwal	K K Garg	Fuzzy PID speed control of DC motor
23.	Kamal kant	K K Garg	Energy evolution of power system
24.	Shippu Garg	K K Garg	Energy conversion model
25.	Vivek Koundal	Tilak thakur	Schematic design of low cost hybrid model for solar - wind energy system with fuel cell

### Electronics & Electrical Communication Engineering (2008)

1.	Ms Livjeet Kaur	Sh J S Bhatia Prof V Rihani	Automobile Health Monitoring System
2.	Ms Maninder Kaur	Ms Neelu Jian	Design and Development of Greenhouse Controller Based on PID Control and Data Logging Unit
3.	Sukhwinder Kumar	Dr.AmodKumar Prof V Rihani	Development of Laser Range Finder for Navigation of Mobile Robots
4.	Santosh Kumar	Prof Bipan C Kaushal	VHDL Implementation of Crossbar Switch
5.	Ravi Bansal	Prof V Rihani	Hand Gesture Recognition Using Neural Networks in MATLAB.



6.	Ashok Kumar Verma	Sh J S Bhatia Dr Deepak Bagai	Speed Control of Single Phase Induction Motor Using Fuzzy Logic
7.	Ms Aman Preet Kaur,	Sh Dalip Kumar Dr Neena Gupta	Fuzzy Based Temperature and Humidity Control in Baby Incubators
8.	Harmeet Singh	Sh J S Bhatia Prof V Rihani	Access Control of Printers using Biometric Technique of Thumb Impression
9.	Gurman Dhillon,	Sh J S Bhatia Sh Bipan Kaushal	Design & Development of AVR Based Hazardous GSM Radiation Monitoring Device
10.	Ms Ramanjeet Kaur	Sh J S Bhatia Ms Rita Mahajan Sandhu	Design & Development of Remote Control unit for Controlling various parameters (Volume, channel, power) of television using speech commands.
11.	Ms Sheilly Sharma	Sh J S Bhatia Dr Deepak Bagai	Development of microcontroller based LPG Gas Sniffer
12.	Ms Ruchika	Sh J S Bhatia Sh Nagendra Sah	Development of Image Acquisition System for Skin Analyzer
13.	Ms Suruchi Virman	Sh J S Bhatia Ms Amita Soni	Development of Handheld Device for Electricity Billing System
14.	Avnit Saini	Sh J S Bhatia Sh Nagendra Sah	Design & Development of an Instrument for Multi Physiological Parameters and communication to an alarm System
15.	Ms Archana Rani,	Sh Dalip Kumar Dr Neelam R Parkash	Development of Automatic toll collection & management system using RFID Technology
16.	Ms Siddhi	Sh Dalip Kumar Dr Neelam R Parkash	FPGA implementation of Floating point unit for the computation of logarithms, Polylogarithms and matrix manipulations
17.	Ms Divya Arora	Sh Dalip Kumar Dr Neena Gupta	Development of AVR based full wave Thyristorized voltage controller card
18.	Ms Priyanka Mehta	Sh Dalip Kumar Sh Sukhwinder Singh	Development of vehicle speed detection & vision based traffic surveillance
19.	Abhijeet Kumar	Sh Dalip Kumar Ms Jyoti Kedia	FPGA implementation of multiplier, square and divider unit using ancient Indian system
20.	Ashok Kumar	Sh Dalip Kumar Prof V Rihani	Mathematics Development of fiber optic flight optic flight control system – To overcome the effect of bends on optical cable
21.	Sunil Semwal	Sh Ajay Mudgil Ms Neelu Jain	Sound Source direction detection and tracking system
22.	Vineet Kumar Goyal	Sh Ajay Mudgil Ms Neelu Jain	AVR based Water Level monitoring and controlling automation system for multiple water tanks
23.	Manoj Prasad Badoni	Sh Ajay Mudgil Sh Arun Kr. Singh	Electronic Travel Aid for blind with discrete distance indicator
24.	Rajan Kumar	Dr Deepak Bagai Ms Inderpal Kaur	3.56 Mhz RFID Based Automatic Identification and Data Capturing System
25.	Tajender Singh	Ms Amita Soni	Parallel Interference cancellation technique for DS/CDMA System in MMSE Receiver
26.	Vijay Kumar	Ms Amita Soni	Performance Analysis OFMRC Diversity Reception for Correlated Branches in Rayleigh Fading Channel
27.	Naveen Kr. Sagar	Ms Amita Soni	Simulation of an effective OFDM system using different Modulation Techniques with Coding
28.	Ashish Gupta	Ms Neelu Jain	Implementation of wavelet based audio codec
29.	Cheena Jain	Ms Rita Mahajan	High Speed Hardware Implementation and Performance Evaluation of RSA Encryption Algorithm

30.	Amardeep Singh	Ms Rita Mahajan	Buried Filter Optic Intrusion Detection Sensor
31.	Mukul Kumar Lath	Sh Nagendra Sah	An optimized cell planning for path loss reduction
32.	Saurabh Chawla	Sh Nagendra Sah	Analysis of propagation modeling using CSP Algorithm
33.	Jayant Dongre	Dr Deepak Bagai	An optimum Normalized Least mean Squares Adaptive Algorithm For Smart Antenna System
34.	Vishal Gupta	Dr Deepak Bagai	An Approach to Expedite Bluetooth Piconet Formation
35.	Harsh Vardhan	Dr Neelam R Parkash	An optimized image codec Algorithm for low bit rate Internet Application
36.	Arun Chatterjee	Dr Neelam R Parkash	Design verification & implementation on hardware of a fast low power SRAM Address Decoder
37.	Ms Shilpa Jindal	Dr Neena Gupta	Performance analysis of an OCDMA LAN system using 2D and 3D codes with varying bit rates
38.	Vivek Gupta	Dr Neena Gupta	Design and simulation of 1D and 2D OCDMA systems using modified prime sequence codes
39.	Pankaj Bajpai	Sh Bipan Kaushal	Design of a High speed low power 6- bit Flash ADC in 0.35 um CMOS Technology
40.	Vinay Kumar Srivastava	Sh Bipan Kaushal	Design of Bandgap Reference Voltage For Analog Integrated Circuit
41.	Hemant Shukla	Prof V Rihani	Design and Development of special function processing using VHDL

#### **Mechanical Engineering (2008)**

1.	Kanwaljeet Singh	Dr A Manna	A Study on Drilling of AL/15% Vol Sic MMC Using Different Drill Bits
----	------------------	------------	--

#### **Metallurgical Engineering (2008)**

1.	Sugandha Sharma	P Thareja	Defect Abatement Methodology Applying Neural Networks
2.	Ritu Sharma	P Thareja	System Design analysis of Die Casting Defects
3.	Ranjit Singh	P Thareja	Development of Matrix Materials for Hot ALDS (Air Leak Detection system)
4.	Sajag	Dr Uma Batra J. D. Sharma.	Study of heat treated ductile irons
5.	Shitanshu Verma	Dr Uma Batra J. D. Sharma.	Wear resistance properties of Austempered Ductile iron
6.	Manpreet Singh	Dr Uma Batra	Study of Microstructure & Machinability of Cu-Ni alloyed Austempered Ductile iron
7..	Jashan Pratap Singh	P. Thareja	Crankshaft interference of casting cylinder Block, A Dissertation submitted to PEC (D U), June 2008.
8.	Sandeep Singh Sangwan	P. Thareja	Functional Metamorphosis and Thermal Analysis of Exhaust Manifold, A Dissertation submitted to PEC (D U), June 2008.
9.	Sukhpal Singh Saluja	P. Thareja	Optimization of Casting Parameters in Trumpet Housing Casting, A Dissertation submitted to PEC (D U), June 2008.
10.	Rishi Raj	P. Thareja	Defect Abatement of Die Cast Al Piston, A Dissertation submitted to PEC (D U), June 2008

### **Production Engineering (2008)**

1.	Pardeep Kumar	Dr Parveen Kalra	3 D Tool Motion Simulation for 2.5 D Pocket Milling
2.	Sumit Taneja	Sh M M Goud	Parametric Study and Emperical Model Building on CNC Turning
3.	Vijay Kumar Karwal	Dr R S Walia	Parametric Optimization of Powder Mixed Electric Discharge Machining Proces
4.	Sanjay Kumar	Dr R S Walia	Parametric Study of CNC Turning Operation using Taguchi Method
5.	Jatin Kumar Jain	Sh R M Belokar	Design of Production System by Using
6.	Gurjit Singh	Sh R M Belokar	Study of Metal Matrix Composites in EDM Axiomatic Design Theory
7.	Neeraj Garg	Dr Narendra Mohan	Welding Parameters Optimization & Their Influence on Characteristics of Resistance Sport 304L Austenitic Stainless Steel Welds

## M.E. Thesis 2009

### Civil Engineering (2009)

1.	Arun Goel	Tripta Goyal	A study of Traffic Characteristics of Railway Over Bridge on NH-64 in Rajpura
2.	Gurmeet Singh	Tripta Goyal	Critical Review and Redesign of Intersections – Case Study of Chandigarh
3.	Ravi Shankar Suman	Roshan Lal	An Analytical Investigation on Dynamic Behaviour of Irregular RC Framed Buildings
4.	Ashwani Kundal	Roshan Lal	Effect of Steel Fibers on Structural Performance of Opening Corner Joints
5.	Dilbagh Singh	Roshan Lal S.K. Singh	A Study on Soil Structure Interaction Effects on Structural Response of Unsymmetrical Buildings Frames
6.	Guljit Singh	N.P. Devgan Sarita Singla	Retrofitting Multistoried RCC Framed Buildings Pushover Technology
7.	Gurvinder Kaur	Roshan Lal	An Experimental Study on Self Compacting Concrete Containing Fly Ash.
8.	Jatin Khurana	N.P. Devgan	Study of RC Framed Building with masonry in filled Walls
9.	Kulwinder Kaur	Roshan Lal	A Comparative Study on Soil Structure Interaction in RC Framed Buildings.
10.	Mahesh Kumar	S.K. Singh Roshan Lal	An Experimental Study on Fibre Reinforced Concrete Corner Joints.
11.	Priyanka Goel	Roshan Lal	An Analytical Investigation on Double Layer Grid Roofs.
12.	Sandeep Shande	Roshan Lal	An Experimental Study on Workability Properties and Strength Characteristics of Self Compacting Concrete.
13.	Rameshwar Dogra	N.P. Devgan Sarita Singla	Analysis of Super Structure Stiffening in RC Framed Base Isolated Buildings.
14.	Vinay Lalia	Roshan Lal	Study on Strength and Behaviour of Reinforced Concrete Corners Under Opening Moment.
15.	Kewal Krishan	Umesh Sharma	Life Cycle Cost Analysis of Flexible and Rigid Pavements for Water Logged Area- A case Study.
16.	Nirpinder Jain	Umesh Sharma	Techno-Economic Feasibility of HVFAC Pavement- A case Study
17.	Saurabh saluja	Umesh Sharma	Growth Analysis of Vehicles and User Population in Chandigarh-A case Study
18.	Chander Prakash	A M Kalra	Alogorithm for consistency check of precipitation data by double mass curve analysis
19.	Ravinder Kumar	Shakti Arora	Electro chemical treatment of pulp and paper mills waste
20.	Vandana	S. K. Sharma	Study of mobility and rotation of nickel in soil

### Computer Engineering (2009)

1.	Pragati Garg	Sanjeev Sofat	Real Time Hand Gesture Recognition
2.	Sudesh Kumar	Sanjeev Sofat	Design and Implementation of Authentication Mechanism for Bandwidth request message

3.	Deepak Parasshar	Bhupendra Singh	Design and Analysis of EEG signals under Electromagnetic radiations
4.	Nitesh Sondhi	Bhupendra Singh	Design and Analysis of ECG signals under Electromagnetic radiations
5.	Neha Singla	Trilok Chnad	Improved Security Protocol in Wireless Sensor Networks
6.	Rohit Garg	Trilok Chnad	Routing with data aggregation in wireless sensor networks
7.	Jasminder Singh	Divya Bansal	Survey & Gap Analysis of Law Enforcement Tools & Technologies for handling Cyber Crimes in India
8.	Surinder Singh Khurana	Divya Bansal	Detection and Recovery Based Approach to Protect Host Based Intrusion Detection System
9.	Amit Kr. Maheshwary	Divya Bansal	A Collective CA Based Distributed Authentication Model For Wireless Mesh Networks
10.	Harleen Kaur	Divya Bansal	Unknown Malware Detection using Honeypots
11.	Arvind Kakria	Ajay Mittal	Depth Perception using Stereo Vision
12.	Poonam Nirwal	Ajay Mittal	An efficient stereo vision based navigation technique for visually impaired
13.	Rosey Chauhan	Ajay Mittal	Indian currency note recognition system for blind
14.	Padmavati	Ajay Mittal	Analysis of SIFT and Design of novel segmentation algorithm
15.	Bhagwan Singh	Manavjeet kaur	An optimised image compression approach for
16.	Devendra Singh	Charu arora	Anomalay detection using statical approach in CBRP
17.	Jaimal Singh	charu arora	Interplanetary internet design of novel transmission protocol
18.	Rajesh Kumar Varun	Shailendra singh	Structure analysis of bio moleclues using free program
19.	Seema kalonia	Shailendra singh	Performance analysis algorithm for biomolecules
20.	Shashank Yadav	Charu arora	Design and load balacing of a novel routing protocol
21.	Vibhav Krashan	Manavjeet kaur	Query execution efficiency in database optimization process

### Electrical Engineering (2009)

1.	Divesh Kumar	Gurnam Singh	Direct Torque Control of Induction Motor Using Space Vector Modulation
2.	Sachin Bhardwaj	Shiv Narayan	Robust Statcom Controller Design Using Loop Shaping with Differential evaluation
3.	Manu Kaushish	Darshan Singh	Enhancement of Transient Stability of Power Systems Using UPFC
4.	Ruchira	Balwinder Singh	Design and Tuning of Power System Stabilizer for SMIB System
5.	Manmeet Kaur	Balwinder Singh	Voltage Stability of Power System and enhancement through shunt compensation
6.	Maninder Singh	S.K.Suman	Constant Voltage, constant frequency operation of a self excited Induction Generator when coupled with variable speed prime mover
7.	Parveen Saini	Tilak Thakur	Optimal Power Distribution Planning & Operation

8.	Pardeep	Tarlochan Kaur	Grounding Grid Design and Analysis of the Effect of Earth Resestivity model on substation grounding Grid
9.	Garima Goyal	K.K.Garg	Vikal To Design YCSC Controller for Stability
10.	Suman Arora	Rashmi Rintu Khanna	Studies in Power System Using Global Optimization Intelligent Voltage Control and Power Factor Control of Distributed Generation
11.	Sandeep Kr. Pandey	Jaimala Gambhir	Study and Analysis of maximum Power point tracking for wind energy conversion systems
12.	Shewta Sharma	Jaimala Gambhir	Study and Stability Analysis of Hybrid Photovoltaic/wind power system interconnected with an electrical utility
13.	Ajay Kumar	Loveleen Kaur	Power Management for Micro Grid with Distribution Generation Units
14.	Gajendra Singh Rawat	Loveleen Kaur	Detection of power quality disturbance using matlab wavelet transform toolbox
15.	Sunny Vig	Raminder Kaur	Power Output Control of wind energy conversion system
16.	BVN Rajesh	Raminder Kaur	Network Configuration Planning for Power and Energy-loss Reduction Using Distributed Generation and Reactive Sources
17.	Anup Shukla	Sandeep Kaur	Economic Load Dispatch Using Dynamic Programming
18.	Jagjit Singh	Sandeep Kaur	Voltage and Frequency Control of Self Excited Induction Generator Using VSI

#### Electronics & Electrical Communication Engineering (2009)

1.	Dhananjay Kumar	Sukhwinder Singh Neena Gupta	Wavefile Compression using linear pre dictive coding
2.	Upasana Gupta	Neena Gupta	Comparative Analysis of Optical encoding schemes with DPSK Systems
3.	Parmod Kumar Rathore	Rita Mahajan Deepak Bagai	Design of Asynchronous Transfer Mode Switch using VHDL
4.	Deepti Sharma	Jaspal Singh Amita Soni	Design & Development of PC based colorimeter
5.	Rajiv Kumar Das	Neelam R.Prakash	Design & construction of an instrument for measurement of Rain & snow Precipitation
6.	Jasbir Kaur	Neelam R.Prakash	8bitx8bit Booth encoded Wallace Tree Multiplier
7.	Robin Walia	Neelu Jain	Real time estimation of depth of Anesthesia using EEG Signal
8.	Rinku Singh	Neelu Jain	Extraction of physical parameters for Tea quality grading
9.	Amaresh Kr. Shukla	Nagendra Sah	Comparative Performance evaluation of call planning
10.	Amit Kumar	Nagendra Sah	CSP algorithm in Inpredicting and optimizing the path loss in Wireless propagation Model
11.	Amit Pathak	Bipin Kaushal Nagendra Sah	Call Admission control in Wide Band CDMA (WCDMA)
12.	Shabahat Hasan	Nagendra Sah	A comparative Analysis of Prediction Modals for Broad band wireless correctively
13.	Gagandeep Kaur	Neena Gupta	Towards the Development of a Steady State Visual Evoked Potential (SSVEP) based Brain Computer Interface System for the impaired

14.	Navdeep Sood	Neena Gupta	Microcontroller Based RF Data Transmission Control Using Fuzzy Logic
15.	Navneet Kaur	Neelu Jain	Development of Microcontroller based Visio-Audio System for the Impaired
16.	Kapil Gupta	Neena Gupta	Hardware Implementation of Wireless Sensor Nodes for Temperature Monitoring and Data Logging
17.	Rajnesh Kumar Singh	Arun Kumar Singh	Remote Control of Arial Vehicle (BLIMP)
18.	Palak Gupta	Jyoti Kedia	Design and Development of Search and Rescue Robot
19.	Asmita Dhillon	Neelu Jain	Telemounting of Patient Using Sensors and RF Transreciever
20.	Jasleen Kaur	Rita Mahajan	Design and Development of Security and privacy system in Telemedicine using RFID
21.	Sukhwinder Singh	Neelam R. Prakash	Development of Microcontroller based Drip Irrigation System for Agriculture
22.	Amandeep Singh	Jaspal Singh	Development of Ultrasonic Distance Meter
23.	Narinder Kaur	Nagendra Sah	Design and development of a biometric authentication
24.	Sangam Kumar Singh	Arun Kumar Singh	study and design of rectangular ring micro strip antenna with capacity feed for breast cancer tumor detection

#### Information Technology (2009)

1.	Ruchika Goyal	Rupali Verma	Performance Analysis of Uplink Scheduling Algorithms in IEEE 802.16 OFDMA Point to Multipoint Network
2.	Priyanka Kapoor	Rupali Verma	A Comparative Study of Quality Of Service (QOS) Aware MAC Protocols In Mobile AD-HOC Networks(MANETS)
3.	Prince Kumar Sahu	Rupali Verma	Intrusion Detection Using Text Categorization Technique With KNN-Algorithm
4.	Nitin Niitesh	Richa Jindal	Microcontroller based design and implementation of smart chip
5.	Ramanjot Kaur	Richa Jindal	Optimization of phishing detection using different machine learning techniques
6.	Rupandeep Kaur	Richa Jindal	Optimization of circuit partitioning techniques of VLSI

#### Mechanical Engineering (2009)

1.	Gaurav Saini	A. Manna	A Study on Electro Chemical Micro Drilling of Al/10% volume Al <sub>2</sub> O <sub>3</sub> MMC
2.	Amandeep Kundal	A. Manna	Machining of Al <sub>2</sub> O <sub>3</sub> (Alumina) (Ceramics on TWECSM set up
3.	Rajesh Kumar	Sandeep Salodkar	A Study on Orthogonal Cutting for Prediction of Tool-chip Interforce Temperature Distribution during Twining of EN8
4.	Pankaj Rana	L.D. Garg	Effect of Inlet on the performance of Annular Diffuser
5.	Prashant	S.K.Soni	Performance Evolution and Emission Characteristics of I.C. Engine Using alternative Fuels
6.	Rajwinder Singh	V.P. Singh	Vibration Analysis of Overhead Traveling Crane
7.	Amit Tanwer	Sushant Samir D.R. Prajapati	Analysis of Coutte Flow Using Finite Difference Method

8.	Bhunesh Kumar	L.D. Garg	Effect of inlet and outlet duct length area ratio on the performance of conical diffuser
9.	Charanpreet Singh Sidhu	Sushant Samir	Modeling and Simulation of two Dimensional N-S equations for Gas & Fluid Flows over an aerodynamic body
10.	Nikhil Gupta	Rakesh Kumar	IR Signature Suppression of gas Turbine Exhaust Using Water Mist
11.	Ms. Neha Rawat	Rakesh Kumar	Thermal Interaction between Water Mist and High Speed Exhaust Gaseous Plume.
12.	Satinder Pal Singh	S.K. Mangal	Study and Analysis of Magneto Rheological Fluid Damper Under Shear mode Using Herschel bully Model
13.	Lokesh Kumar	Sarbjit Singh	Some Investigation on Vibration Analysis of Radial Drilling Machine
14.	Vikramjit Pawar	D.R. Prajapati	Productivity Improvement through work Management Techniques
15.	Amandeep Kankran	D.R. Prajapati	Application of FEMA Techniques in various Industries
16.	Rajinder Singh	P.S. Satsangi	Weld ability of Fiber Reinforced Cast Iron with Gas Tungsten Arc Welding
17.	Sanjeev Kumar Dhama analysis of turbine blade	Rakesh kumar	computation in experimental studies of thermal

### **Production Engineering (2009)**

1.	Rajesh Chhabra	M M Goud R S Walia	FEM Modeling of Magnetic Abrasive Finishing Process Using ANSYS
2.	Jagjit Singh Randhawa	Narendra Mohan	Effect of Process Parameters and Metal Powder on the Wear Resistance of the Weld in Submerged ARC Welding
3.	Rajeev Verma	Narendra Mohan	Modeling of Temperature in HAZ of GMAW Weld by using Surface Response Method & ANSYS 10
4.	Ashish Gautam	R S Walia	FEM Modeling of Ultrasonic Assisted Electric Discharge Machining Using ANSYS



**2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)  
of  
PEC University of Technology, Chandigarh**

**Part – II  
Institutional Proposal for Sub-Component 1.2  
TEQIP - II**

## 2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

### 2.1 Give the executive summary of the IDP

PEC University of Technology is one of the India's leading Institution in the field of engineering and technology for last 89 years. The institute is running 9 UG and 11 PG programmes and has over 2000 students in 146 acres of campus. It is proud to have established a high ranking among the engineering institutions in India in terms of placements along with many other achievements. PEC University of Technology is striving to be at forefront of technical education and research. Therefore, it has envisaged enhancing the quality and increasing the enrolment of students of Postgraduate programmes. With this objective the institute has decided of participating in Sub Component 1.2 of TEQIP (Phase - II) titled **“Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation”**

This proposal includes following activities:

- (i) Infrastructure improvement for PG Technical Education through-
  - (a) starting three new PG Programmes in emerging areas, (b) Development of three new PG Laboratories, (c) Upgradation of four existing PG Laboratories, and (d) modernization /digitization of library
- (ii) Providing teaching and research assistant ships to achieve significant increase enrolment in ME and PhD programme
- (iii) Enhancement of R&D and institutional consultancy activities
- (iv) Faculty and staff development
- (v) Enhancing Industry – Institution interaction
- (vi) Enhancement of management capacity for better governance
- (vii) Accreditation of ME programmes
- (viii) Academic support to weak students

During the period 2010 -2014, the following will be enhanced:

- (i) Number of ME students by 30%
- (ii) Number of PhD students by 75%
- (iii) Revenue from R&D and Consulting by 30%
- (iv) Revenue from IRG by 15%
- (v) Research publications in national and international refereed journals by 50%
- (vi) Placement of ME students by 100%
- (vii) Collaborations with industry by 50%
- (viii) Training of 50 faculty, 20 technical staff and 20 administrative staff

## **2.2 Provide the details (in terms of methodology used, analysis carried out of the data and information collected and inferences derived with respect to strengths, weaknesses, opportunities and threats) of SWOT analysis.**

### **SWOT ANALYSIS**

SWOT Analysis of the PEC University of Technology, Chandigarh has been conducted with an aim to make a comprehensive analysis of its strengths, weaknesses, opportunities and threats so as to enhance its scope of activities especially in the area of post graduate and doctoral education, research and development and meeting the challenges of future.

### **OBJECTIVE**

The broad objective has been to identify thrust areas for preparing a Strategic Plan for Scaling up of Post Graduate Programmes and Demand Driven R&D and Innovation in the University.

### **METHODOLOGY**

Exploratory research design has been chosen to carry out this research project of SWOT analysis of PEC University of Technology, Chandigarh. It was decided to adopt case study approach to accomplish research objectives. The case study approach envisages a comprehensive and exhaustive data collection from the study unit. While doing this, a detailed study of the philosophy, vision, mission, mandate, infrastructure, curriculum, teaching-learning process, examination system, student placement, management & HRD policies etc. has been conducted. The strategy has been to actively involve all stakeholders comprising of Director and other officials, faculty and staff, students, alumni, industry and community in visualizing the future of the institution, its present status and the actions to be taken to achieve the goals. The sample for the project comprised of 65 teachers, 50 students, 10 alumni/industry/ community representatives. The research process for the project comprised of need identification and scope of work; orientation of project coordinator(s), Brainstorming session with HOD's and senior faculty; getting information from teachers, students, alumni and industry/community on four validated questionnaires; interviewing project coordinators, concerned officials and students; analysis of information and validation of report. The final report has been prepared in consultation with Director and coordinator(s) from the University.

The major findings of the project are:

## **STRENGTH**

### **Good Reputation**

- History of around 90 years as a well reputed engineering institution
- Ranking fairly high (top 20) amongst the top technical institutions in the country.
- NBA Accreditation of UG programmes for three years
- A preferential institute amongst good students from India and abroad.

### **Very Good Infrastructure**

- 146 acres Campus of located in the heart of City Beautiful, The Chandigarh providing it a demographic and locational advantage.
- All facilities for the holistic development of students.
- Excellent buildings, well equipped laboratories and workshops.
- Networking/ wi-fi connectivity for all students and faculty.
- Well equipped library,
- Spacious hostels, guest house and faculty/ staff houses, seminar halls and auditorium
- Excellent sports and recreational facilities for curricular and extra curricular activities

### **Programmes, Curriculum and Teaching Learning Process**

- Demand driven Undergraduate, Post Graduate and Ph.D programmes in diversified nine disciplines of engineering and technology
- Highly relevant, feasible, flexible and up-to-date curriculum, developed and implemented with active participation of faculty and students
- Design approach, project and practice oriented teaching learning process
- Highly flexible, open, efficient and learner oriented assessment and evaluation system.

### **Human Resources and Management**

- Qualified and Competent faculty with about 46% individuals having Ph.D. in engineering and technology, applied sciences & humanities
- Motivated and dedicated faculty with a blend of high experience and young and energetic dynamism
- High level of student involvement in different projects, programmes and process of the institute
- Student chapters of many professional societies
- Alumni well placed, knowledgeable and supportive
- Highly transparent, efficient and effective management system

## **UG Programmes**

- High quality students in UG programmes
- Almost 100 % student placement
- Significant number of overseas students
- NBA Accreditation

## **WEAKNESSES**

### **Industry Institute and Institute Community Interaction**

- Although the institute has developed linkages with industries and resource organizations, there is still ample scope to do the same for further enhancing the number of projects and programmes being undertaken
- Less expert lectures and exchange of experts between institute and industry
- Less number of continuing education programmes for the manpower from industry
- Less number of community development projects and programmes and transfer of appropriate technology and entrepreneurship development

### **ME Programmes**

- Less number of ME students compared to UG Programmes
- Quality of students not as high as UG programmes
- Placement between 15 - 20 % for ME students
- Need for accreditation of ME programmes

### **R&D Culture**

- Comparatively weak research and development culture
- Insufficient collaboration and networking with R&D laboratories and industrial R&D houses
- Lack of high end and high technology labs and infrastructure
- Less number of R&D reports and publications
- Less number of patents

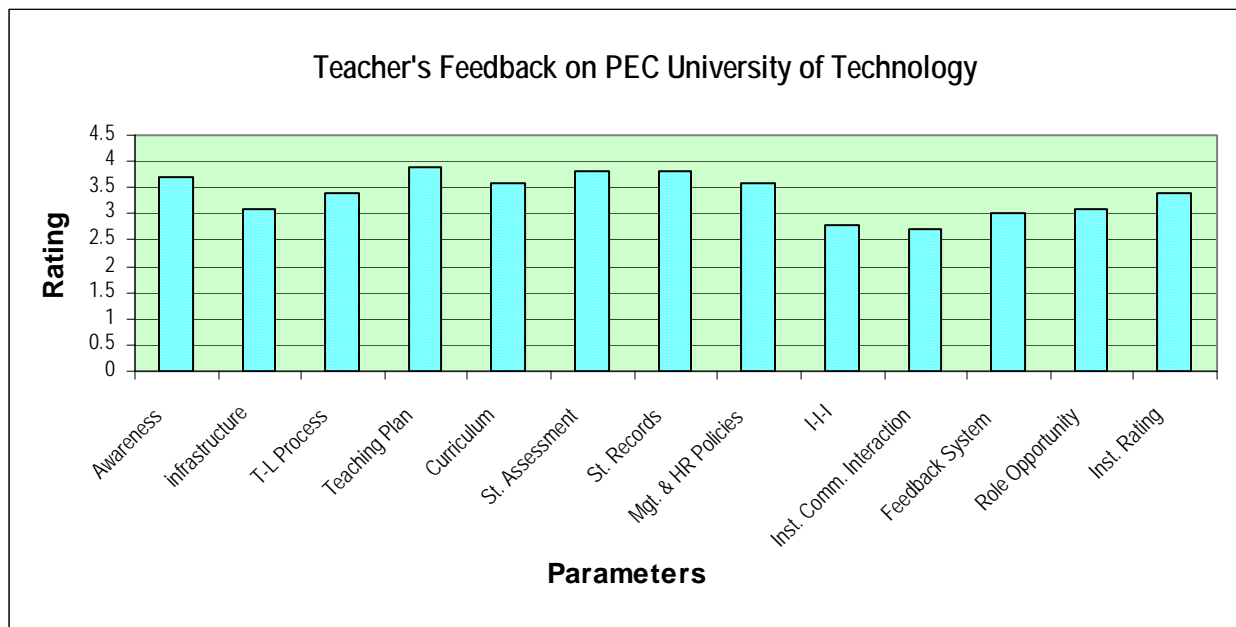
## **OPPORTUNITIES**

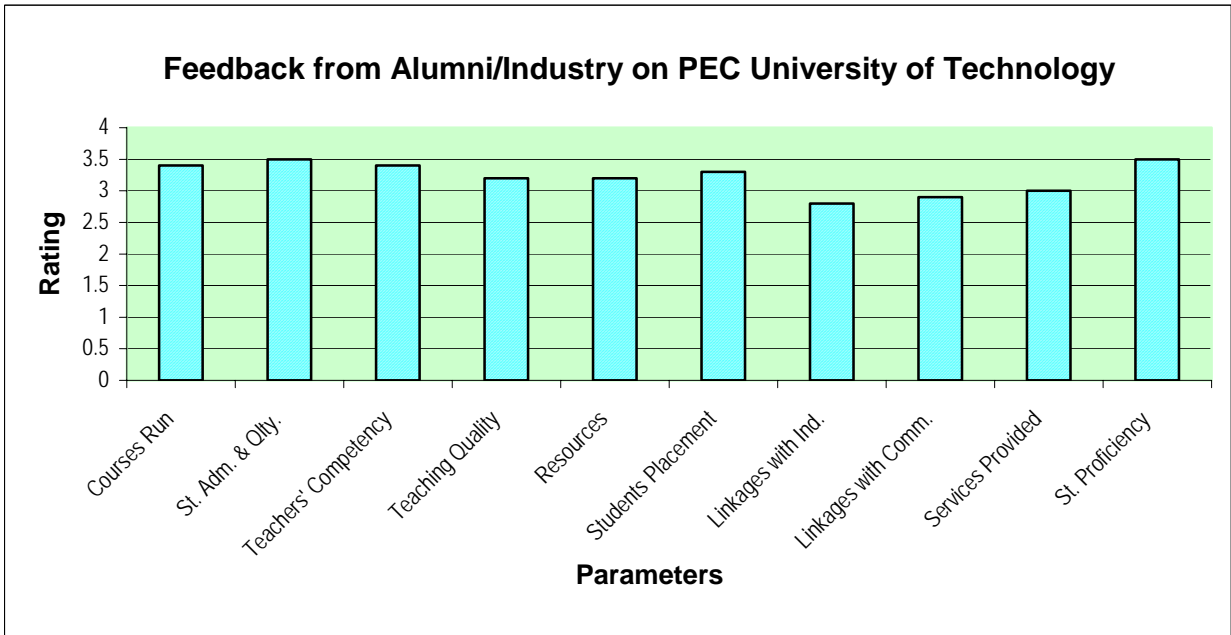
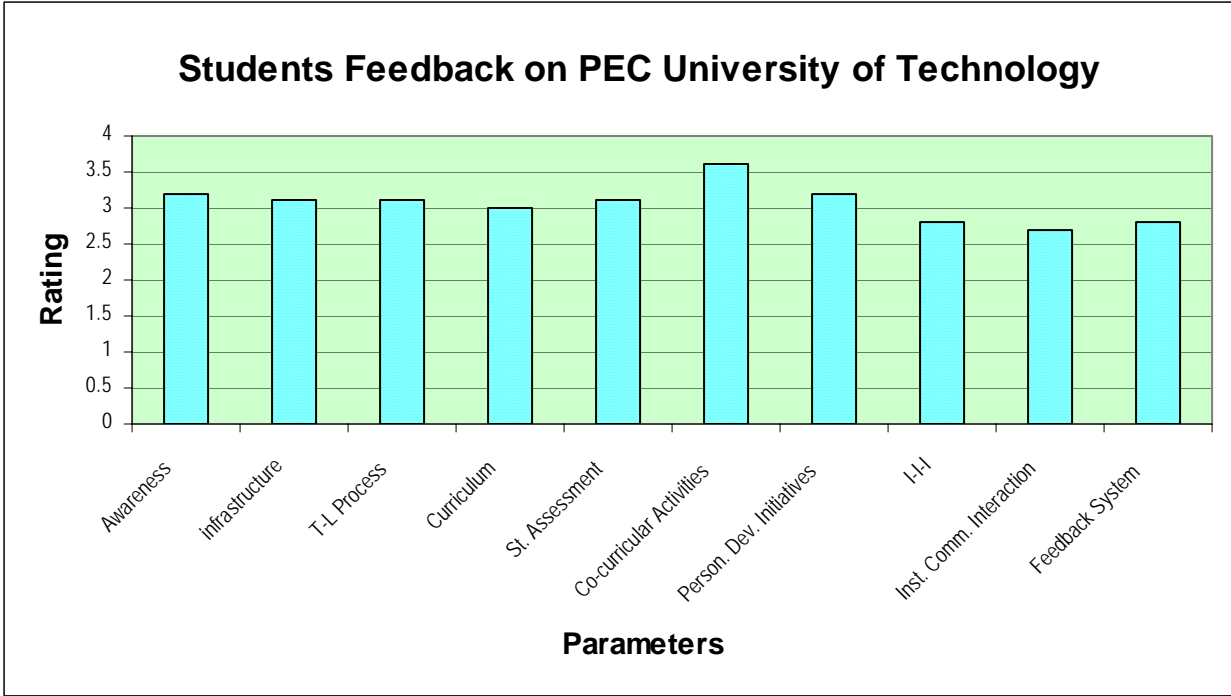
- Good infrastructure and expertise to initiate new programmes at master's and doctorate levels
- High scope for R&D and consultancy projects
- Collaboration and networking with industries, industrial associations, R&D laboratories and national and international technical institutions and universities
- Centre of excellence in new and interdisciplinary areas of engineering and technology

- Starting distance education programmes
- Modernization of library through digitization and RFID
- Enhancement of quality of education through training and knowledge up-gradation of faculty and staff
- Improvement in operational efficiency of academic and administrative systems through enrichment programmes for senior management officials
- Accreditation of Deemed University by NAAC and PG programmes by NBA
- Innovative practices to improve performance of weak students/under privileged students

## THREATS

- Mushrooming growth of engineering institutions
- Establishment of collaborative or independent campuses by foreign universities
- Rigid government rules and regulations





### 2.2.2 Based on SWOT analysis, provide the strategic plan developed of institutional development

PEC University is a 89 years old institution committed to provide diversified and high quality technical education at undergraduate. Although the institute is running 11 Postgraduate Programmes, but the quality of all of these programmes is not as high as that of undergraduate programmes. It is envisaged to strengthen its postgraduate technical education that can lead to innovative Master’s and Phds, and effective employability. The institute considers postgraduate education and the research activity to be crucial for fulfillment of its mission.

Therefore, PEC plans to take lead in providing good quality educational services and research and development results that can support regional and national development, and contribute to innovation. Under the TEQIP project, institute has planned

- Quantitative increase in no. of ME and PhD programmes
- Qualitative improvement of ME and PhD programmes
- Establishment of new PG laboratory
- Upgradation of existing PG labs
- Addition of research facilities,
- Improvement of learning resources
- Improvement of competence of faculty & staff
- Improvement of institute’s systems.

### 2.2.3 Show how the results of SWOT analysis are linked to the key activities proposed in the proposal

S.No	Gaps Identified by SWOT Analysis	Key activities in proposal
1.	Need for strengthening of PG education	<b>Infrastructure improvement for PG technical education through:</b> Starting New PG programmes with an student strength of 25 in each programme, Developing New PG Labs and New Research Facility, Upgradation of existing PG Labs, Library modernization
2.	Quality research activity	Providing teaching and research assistantships to increase enrolment in existing and new ME programmes in Engineering disciplines & existing PhD Program.
3.	Need to develop Research and development culture	Enhancement of R&D and institutional consultancy activities
4.	Need to enhance faculty and staff competence	Faculty and staff development (including faculty qualification upgradation, pedagogical training, and organizing /participation of faculty in workshops, seminars and conferences) for improved competence based on TNA



5.	Need for enhancing linkages with industry	Enhancement of Industry – Institute interaction
6.	Improving the operational efficiency of academic & administrative systems	Institutional Management Capacity enhancement
7.	Need for accreditation of ME Programmes	Implementation of institutional reforms
8	Innovative practices to improve performance of weak students & underprivileged	Academic support for weak students
9.		Operation of TEQIP - II

**2.3 State the specific objectives and expected results of your proposal in terms of “Institutional strengthening and improvements in the employability and learning outcomes of graduates”. These objectives should be linked to the SWOT analysis**

<b>S . N o</b>	<b>Gaps Identified by SWOT Analysis</b>	<b>Key Activities</b>	<b>Specific Objective</b>	<b>Expected Results</b>
1.	Need for strengthening of PG education	<b>Infrastructure improvement for PG technical education through:</b>  Starting New ME Programmes with an student strength of 25 in each programme	To increase the intake and out-put of ME students through demand driven ME Programs and Interdisciplinary areas	ME CSE (Information Security)
				ME Product Design/Industrial design
		Developing New PG Labs and New Research Facility  Upgradation of existing PG Labs	To give impetus to research work at PG and PhD levels	ME Total Quality Engineering & Management (TQEM)
				Following new labs will developed: Labs for above new PG programme - Industrial Materials & Metallurgical PG lab - Advance Manufacturing Technology Lab - Energy Auditing Lab  Following PG Lab will be upgraded - Communications lab - Highways Lab - Manufacturing Lab - Work study & ergonomics Lab

		Library modernization	To provide access of learning resources to students and staff through modern and well equipped library	Digitization of library Procurement of e-books CD Bank
		Consultancy services for TNA and execution of TEQIP		
2.	Quality Research Activity	Providing teaching and research assistantships to increase enrolment in existing and new ME programmes in Engineering disciplines & existing PhD Program.	To attract better quality students in ME & PhD programmes by offering assistantship to enhance enrolment at ME and PhD levels	50 ME assistantships for 2 years
				30 PhD assistantships for 3 years in first two years
3.	Need to develop Research and development culture	Enhancement of R&D and institutional consultancy activities	<ul style="list-style-type: none"> <li>- Securing increased Sponsored Projects and consultancy assignments</li> <li>- Collaboration with industry and Research organizations</li> <li>- Increased quality &amp; no. of publications in peer reviewed journals</li> </ul> Industry linked research projects by ME students	Raising the revenue from sponsored projects & consultancy from present value of Rs 80 lakhs to 125 lakhs  Enhanced publication  Enhanced students interaction with industry  Research funding for young faculty of the institute

4.	Need to enhance faculty and staff competence	Faculty and staff development (including faculty qualification upgradation, pedagogical training, and organizing /participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	<p>Holistic development of faculty and staff for enhancing their efficiency and effectiveness for fulfilling the requirement of various projects under Institutional Development Sending faculty to short term courses, conferences, workshops, industries in India and abroad for Upgradation of qualification, acquiring knowledge in emerging areas and industrial processes &amp; improving teaching competence</p> <p>Sending Technical staff for acquiring technical knowledge</p> <p>Sending Administrative staff for acquiring office work and automation</p>	<p>20 faculty to attend National Conference</p> <p>5 faculty to attend International Conference/Symposia/Workshop/STC</p> <p>10 Faculty to attend National Short term course</p> <p>5 Senior Faculty to attend International conference/symposia/seminar/short term course</p> <p>10 Faculty to be send for industry based knowledge enhancement</p> <p>20 Technical Staff to be sent for improvement of technical competence</p> <p>20 Administrative Staff to be sent for improvement of office/ purchase procedure</p>
5.	Need for enhancing linkages with industry	Enhancement of Industry – Institute interaction	Industrial exposure and knowledge updation of faculty & staff	One Curriculum development workshop per deptt. in collaboration with industry

			<p>Industry oriented projects for PG and PhD students</p> <p>Signing MoUs for joint activities with Industry</p>	<p>Campus placement enhancement from 17% to 35% for ME students</p> <p>Industry leaders summit for students – one every alternate year</p> <p>Alumni industrialist lectures / Mentorship to students</p> <p>Increased support for industrial tours</p>
6.	Improving the operational efficiency of academic & administrative systems	Institutional Management Capacity enhancement	Enrichment programmes for senior management officials of the institute	International or National Enrichment Programmes to be attended by senior officials including - Chairman BOG & Vice Chairman BOG, Members of Board from Chandigarh Administration, Director, Deputy Director, Registrar, Deans
7.	Need for accreditation of ME Programmes	Implementation of institutional reforms	To deliver ME Program meeting accreditation standards	<ul style="list-style-type: none"> <li>- Accreditation by NBA of 7 ME Programmes</li> <li>- Short Term Courses/ Lectures</li> <li>- Curriculum development workshop as at S. No 5)</li> </ul>

8	Innovative practices to improve performance of weak students & underprivileged	Academic support for weak students	To Improve pass rate & employability	- Communication skill Courses
				- Summer Courses to UG & PG weak students
				- Personality Development Programmes/Workshops
9.		Incremental Operating Cost	Execution of TEQIP II	<ul style="list-style-type: none"> <li>- Operational activities of TEQIP-II (Manpower/ equipment/travel/outsourcing etc.)</li> <li>- Participation &amp; organizing conference/seminars/workshop</li> </ul>

## **2.4 Provide an action plan for scaling-up enrollment into Masters and Doctoral programmes**

The institute has strategically decided to increase the enrolment and to improve quality of Master's and PhD level programmes. Because of limited resources, the enrolment at ME level in 2009-10 is approximately 341. The number of PhD students at present is 63. On improvement of quality and funding, total enrolment at Masters and PhD and graduation will be increased to 440 and 110 respectively. Better quality students can be attracted with better academic results, good learning resources, quality teaching and research environment and better assistantships. Therefore, the action plan comprises:

Investments in faculty and staff development by training them in India and abroad through conferences/seminars/short term courses/ symposia etc.

- Procurements for development of new laboratories and new ME Programmes
- Upgradation of existing labs
- Modernization of library
- Improving relevance of curricula
- Enhancing interaction with industry
- Improving competence of faculty and staff
- Accreditation of master's programmes etc.

The time line for these activities are given below:

## 2.4 Time line for scaling –up enrollment into Masters and Doctoral programmes

S · N o	Activities	Project Months														
		1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45
1	Infrastructure improvements for PG Technical Education through															
	(i) Starting New ME programmes															
	(ii) Establishment of new PG laboratories and adding research facility															
	(iii) Upgradation of existing PG Labs															
	(iv) Modernization and strengthening of libraries and increasing access to knowledge resources															
	(v) Consultancy services															
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new															
3	Enhancement of R&D and institutional consultancy activities															
4	Faculty and Staff development for improved competence based on TNA															
5	Enhanced interaction with Industry															
6	Institutional Management Capacity enhancement															
7	Implementation of institutional reforms															
8	Academic support for weak students															
9	Incremental Operating Cost															



**2.4 (a)**

Activity	Project Months															
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
<b>Action Plan for Scaling up ME enrolment</b>																
- Advertisement		■				■				■						
- Conducting test for admission			■				■				■		■			
- ME enrolment			■				■				■					
- Assistantship Distribution			■													
- Biannual Evaluation of their research work				■			■			■			■			

**2.4 (b)**

Activity	Project Months															
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
<b>Action Plan for Scaling up PhD enrolment</b>																
- Advertisement		■				■				■						
- Conducting test for admission			■				■				■					
- PhD enrolment			■				■				■					
- Assistantship Distribution			■													
- Biannual Evaluation of their research work					■		■		■		■					

## **2.5 Provide an action plan for improving collaboration with Industry.**

Interaction of academia and industry is a two-party endeavor, but highly dependent on academic interest and pro-activity. Although institute has about 10 MOU's signed with various reputed Industries, research organizations, foreign Institutions with varied scope of activities such as- training of our students, research activities, innovation projects etc. With limited funds available for this purpose, only limited number of students from such collaborations and that too at UG level are benefitted from these collaborations. It is felt that the benefit can be extended to more number of students at UG and PG levels by organizing Industry leader's summit and workshop on innovations, membership through entrepreneurship cell for students, inviting alumni industrialists for expert lecture and increasing support for industrial tours of the students to industry. Further, curriculum workshops will be organized by each department inviting Industrial personnel to improve the relevance of present curricula and such interactions are expected to result in better interaction of faculty with them to explore industry oriented research at PG level. Our faculty and staff will be provided incentives for training at industries to improve their knowledge and understand the industrial processes.

## **2.6 Provide an action plan for:**

- **Quantitatively increasing and qualitatively improving research by their faculty individually jointly and collaboratively**

It has been planned that

- Young faculty members will be allocated research funds for carry out research
- 20 faculty to attend National Conference
- 5 faculty to attend International Conference/Symposia/Workshop/ STC
- 10 Faculty to attend National Short term course
- 5 Senior Faculty to attend International conference/symposia/seminar/short term course
- 10 Faculty to be send for industry based knowledge enhancement
- 20 Technical Staff to be sent for improvement of technical competence
- 20 Administrative Staff to be sent for improvement of office/ purchase procedure
- **Developing research interest among undergraduate students**
- **Collaborating with Indian and foreign institutions in academic and research area through MoUs**

PEC University will collaborate with foreign academic institutions through signing of MoU to foster co-operation for faculty exchange through deputation for short term assignments and other activities which will include joint projects, joint supervision of doctoral students and other academic programmes of mutual interest. Such agreement will include various activities which will enable both PEC and foreign academic institutions to exchange students at both undergraduate and postgraduate levels for internship/projects and course work in regular engineering curriculum for a period of upto six months to one year.

## **2.7 Attach the summary of Training Needs Analysis carried out. Also provide**

### Action Plan for Section 2.5 & 2.6

Activity	Projects Months															
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
<b>2.5 Action Plan for Improving Collaborations with Industry</b>																
- Curriculum Development Workshop			█			█					█					
- Industry leader summit				█							█					
- Campus Interviews for enhancing placement	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Alumni Industry lectures/interaction	█		█		█		█		█		█					
<b>2.6 (i) Action Plan for Qualitative and Quantitative Improvement in Research by faculty</b>																
- Seeking proposals	█				█					█			█			
- Presentation for selection		█				█				█			█			
- Project sanction		█				█				█			█			
- Evaluation					█				█			█				
- Attending National Conference by faculty	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Attending International Conference by faculty	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Short term Course		█		█		█		█								
- Industry based visit and knowledge enhancement	█				█					█						
<b>(ii) Action Plan for Developing Research interest in UG</b>																
- Workshop for UG students			█				█				█					
- Seeking Proposal & Presentation			█				█				█					
- Project Sanction			█				█				█					
- Evaluation			█		█				█		█			█		
<b>(iii) Action Plan for Collaborating with Indian &amp; Foreign Institutes</b>																
- Formal Correspondence			█	█							█	█				
- Visiting				█	█	█							█	█		
- Signing MoU								█							█	

### Action Plan Institutional Reforms

Activity	Project Months															
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
<b>Action Plan for Institutional Reforms</b>																
- Curricular Reforms Workshop		■				■						■				
- Exercise of autonomy (already exists)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
- Establishment of Four Funds	■				■				■				■			
- Generation, Retentions & Utilization of IRG	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
- Filling of existing faculty vacancy			■	■	■			■	■	■			■	■	■	
- Filling of existing staff vacancy			■	■	■	■			■	■	■			■	■	■
- Delegation of decision making power to senior faculty	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
- Improved students performance		■	■	■	■	■			■	■						
- Performance appraisal of faculty by students		■		■		■			■		■			■		■
- Faculty incentive for continuing Education, Consultancy and R&D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
- Accreditation of UG & PG																
UG accredited for 2009 - 12								■	■	■	■	■	■	■	■	■
PG applied for (2010)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**Faculty Development Plan from the first 18 months to achieve competence based on Training Needs Analysis (TNA) in the following area**

- Basic and advanced pedagogy training
- Subject / domain knowledge enhancement
- Attendance in activities such as workshops seminars etc
- Improvement in faculty qualifications
- Improving research capabilities

**Summary of Training Needs Analysis :** A brief summary of TNA carried out is as follows:

**A) FACULTY DEVELOPMENT PLAN**

<b>Sr. No.</b>	<b>Functional Area</b>	<b>No. of persons to be trained</b>	<b>Place where the training to be provided</b>	<b>Date</b>
1.	Up-gradation of qualifications	4	IITs / PEC	2010-14
2.	Knowledge in new and emerging areas	25	IITs/PEC/NITTTRs	2010-14
3.	Improving competence in Teaching Methodologies and Development of learning resources and teaching aids	11	IITs/PEC/NITTTRs	2010-14
4.	Improving competence in research and consultancy and managing linkages with institutions / industry	12	IITs/PEC/NITTTRs	2010-14
5.	Personality Development Programmes, General Management & Administration, Quality Management	18	IIMs/NITTTRs/PEC	2010-14
6.	Deputation to conferences, seminars, presentation of research papers	As per the needs of faculty & staff.		2010-14

**B) STAFF DEVELOPMENT PLAN**

**TECHNICAL STAFF**

To upgrade and update the skills of technical staff, it is further proposed to provide training to them in the following areas by organizing training programs in the campus as well as sending them to other places or both.

(i) **ACTION PLAN FOR TRAINING OF TECHNICAL STAFF**

<b>Sr. No.</b>	<b>Area</b>	<b>No. of persons to be trained</b>	<b>Place where the training to be provided</b>	<b>Date</b>
1.	Operation and Maintenance of Machines & Equipment	4	PEC/Supplier Campus	2010-14
2.	Upkeep of Institute Services	2	PEC/Supplier Campus	2010-14
3.	Advanced Knowledge in Occupational areas	2	PEC/NITTTR/Supplier Campus	2010-14
4.	Motivational/Attitudinal Development Programmes	4	PEC/NITTTR/Supplier Campus	2010-14

(ii) **ACTION PLAN FOR TRAINING OF ADMINISTRATIVE STAFF**

The administrative supporting technical staff shall be trained in office procedures, software, office automation, maintenance of records, procedures, etc. The detailed plan of training is given below:

<b>Sr. No.</b>	<b>Area of Training</b>	<b>No. of persons to be trained</b>	<b>Place where the training to be provided</b>	<b>Date</b>
1.	Office Procedures, Financial and Purchase rules, RTI and other Legal matters, maintenance of records and other functional areas.	4	PEC / Chandigarh / Inst. of Secretariat Trg & Mgt. New Delhi / Inst. of Socio Economic Research and Action(ISERA), New Delhi	2010-14
2.	Use of Modern Office Equipment, Software, Office Automation	3	PEC/Chandigarh/Suppliers	2010-14
3	Motivational/Attitudinal Training/Communication Skills etc	4	PEC/NITTTR, Chd./Delhi	2010-14

## FACULTY AND STAFF DEVELOPMENT FOR IMPROVED COMPETENCE

Training need analysis has been conducted at PEC University of Technology, Chandigarh to enhance faculty and staff competence. The broad objective of TNA has been the holistic development of faculty and staff for enhancing their efficiency and effectiveness for fulfilling the needs of various projects and programmes. For this purpose a set of questionnaire has been used to assess the training needs at individual level (Faculty and staff) and its finalization at the departmental level. Based on the above information, an institution development plan has been made. The faculty and staff development plan is closely linked with the vision, mission and overall goals of the institution. The broad strategy for preparing faculty and staff development plan comprised of :

(i)	Faculty with experience less than five years	Pedagogical skills, Communication Skills, Educational Technology, Knowledge in new and emerging areas.
(ii)	Faculty with experience more than five years	Knowledge in new and emerging areas, Research & Consultancy, Industry-Institute Interaction, Curriculum Development.
(iii)	Heads of Department	Curriculum Implementation, Knowledge in new and emerging areas, Department Management, Human Resource Management, Institute Development, General Management.
(iv)	Director	Institute Building, Education Planning & Management, Leadership and General Management





## 2.8 Provide an action plan for training technical and other staff in functional areas

### (a) Action Plan for Training of Technical Staff

Staff	Training in following functional Ares	No of Staff	Training Months															
			1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
Technical	(i) Operation and Maintenance of Machines & Equipment	3		■														
		2				■												
	(ii) Upkeep of Institute Services	3						■										
		2								■								
	(iii) Advanced Knowledge in Occupational areas	3										■						
		2												■				
	(iv) Motivational/Attitudinal Development Programmes	3														■		
		2																■

2.8

(b) Action Plan for Training of Administrative Staff

Staff	Training in following functional Areas	No of Staff	Training Months															
			1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
Administrative	(i) Office Procedures, Financial and Purchase rules, RTI and other Legal matters, maintenance of records and other functional areas.	3		■														
		2			■													
		3					■											
		2							■									
	(ii) Use of Modern Office Equipment, Software, Office Automation	3										■						
		2												■				
	(iii) Motivational/Attitudinal Training/Communication Skills etc	3															■	
2																	■	

## **2.9 Describe the relevance and coherence of Institutional Development Proposal with State's/National (in case of CFIs) Industrial/Economic Development Plan.**

The Chandigarh Administration is already in the process of upgrading its infrastructure in important areas like Education, Health and Power etc.

The PEC University of Technology being a premier institute in Chandigarh, has responsibility of keeping high standards of technical education. The TEQIP – II proposal for sub component 1.2 is intending to increase the quantity of ME and PhD students and improving the quality of these programmes. This proposal is directly in line with Chandigarh Administration plan to a premier education city of the country.

## **2.10 Describe briefly the participation of departments / faculty in the proposal preparation and implementation.**

This proposal has been discussed in full with all Heads of the Departments, Deans and senior faculty members. The SWOT analysis was performed by the Director NITTTR, Chandigarh. The diagnostic was shared with the graduate students and a small sample of industry leaders and professionals and all the departments of the institute. The activities have been planned based on SWOT and as per the requirements of the Institute /Faculty/Staff/Students. The action plan for such activities have been proposed while keeping academic and financial years into consideration.

The proposal has been approved by the Board of Governors of PEC University of Technology.

## 2.11 Institutional Project Implementation Arrangements

Work Activity	Year - 1												Year - 2												Year - 3												
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Increase Intake and output of ME students ( <b>objective 1</b> )																																					
Starting new ME Programme																																					
ME information security	x																																				
ME Product Design / Industrial Design							x																														
ME TQEM							x																														
Establishment of new PG Labs				x																																	
Upgradation of existing Labs				x																																	
Digitization of Library				x																																	
Procurement of e-books & CD bank				x																																	
Consultancy Services								x													x												x				
To attract better quality student in ME & PhD Programmes ( <b>objective 2</b> )																																					
Norms and guidelines				x	x																																
BOG Approval				x	x																																
Advertisement						x	x																														
Admission							x	x																													
Starting Scholarships								x																													
Research & Development Culture ( <b>objective 3</b> )	x																																				
Securing Sponsored Research	x																																				
Securing Consultancy assignment	x																																				
Collaboration with Industry									x																												
Industrial link projects by ME								x																													





**2.12 Provide an institutional project budget in Table No.34.**

**Table-34:**

**Institutional Project Budget for Sub-Component 1.2**

S · N o	Activities	Project Life Allocation	Financial year (Amount in Crores)				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Starting New ME programmes	2.40	0.40	0.80	0.80	0.40	-
	(ii) Establishment of new PG laboratories and adding research facility	1.80	0.28	0.62	0.62	0.28	-
	(iii) Upgradation of existing PG Labs	3.60	0.60	1.20	1.20	0.60	-
	(iv) Modernization and strengthening of libraries and increasing access to knowledge resources	62.5	2.5	0.30	0.30	-	-
	(v) Consultancy services	0.25	0.05	0.08	0.08	0.04	-
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new	3.50	-	1.17	1.17	1.16	-
3	Enhancement of R&D and institutional consultancy activities	1.225	15.7	29.4	29.4	29.4	18.6
4	Faculty and Staff development for improved competence based on TNA	1.25	0.16	0.32	0.32	0.32	0.13
5	Enhanced interaction with Industry	0.70	17.5	0.35	17.5	-	-
6	Institutional Management Capacity enhancement	0.37	0.09	0.19	0.09	-	-
7	Implementation of institutional reforms	0.26	0.20	0.06	-	-	-
8	Academic support for weak students	0.27	0.03	0.07	0.07	0.07	0.03
9	Incremental Operating Cost	1.25	0.16	0.32	0.32	0.32	0.13
<b>TOTAL</b>		<b>17.50</b>	<b>2.327</b>	<b>5.774</b>	<b>5.439</b>	<b>3.484</b>	<b>0.476</b>



**2.13 (a) Provide the targets against the deliverables given in Table 35.**

**Table-35  
Project Targets for Institutions under Sub-Component 1.2**

S. No.	Deliverables	Base-Line 2009 -10	Targets to be achieved	
			At the end of 2 years of joining the Project	By Project closing
1	Number of students registered for (a) Masters in Engineering programme	341	390	440
	(b) Doctoral Programme in Engineering	63	85	110
2	Revenue from externally funded R&D projects and Consultancies	164	175	200
3	Number of (a) Research publications in refereed journals			
	• National journals	35	40	45
	• International journals	30	35	45
	(b) Citations			
4	IRG as % of total recurring expenditure	48.6%	52%	55%
5	Number of co-authored publications in refereed journals (a) National	03	05	08
	(b) International	01	05	07
6	Student credentials (a) Campus placement rate of			
	• UG students	91%	92%	95%
	• PG students	17%	25%	35%
	(b) Average salary of placement package for (Rs. in lakh)			
	• UG students	4.0	4.25	4.5
	• PG students	3.5	4.0	4.5
7	Number of collaborative programmes with Industry	1	At least 2	3

8	Accreditation Status (obtained and applied for)		At least 75% of eligible UG programmes and 60% of eligible PG programmes	100% for UG and PG programmes
9	Vacancy position for faculty and Staff	32% 34%	Vacancy reduced to 5% or less	Zero vacancy
10	Percentage of regular faculty with PhD in Engineering disciplines	34%	At least 20% 40%	At least 25% 45%
11	Any other (maximum three)			
(i)	New ME programmes	-	1	3
(ii)	New PG labs in emerging areas	-	1	3
(iii)	MoUs with Industry	11	13	15

\* At present against these vacancies 23 persons are employed on contract and 23 persons are outsourced employees.

## **2.14 Give an action plan to ensure that the project activities would be sustained after the end of the project**

### **Project Sustainability**

In the years after the implementation of the project, the following needs will be have to be attended:

1. General expenses for electricity, water 2. Materials for the use of the laboratories and instruments 3. Maintenance of the laboratories 4. Maintenance of the scientific equipment 5. Systematic update and increase of purchased equipment 6. Teaching and Research Assistantships to ME & PhD students.

1. The first three items on the list are considered in the budget and will require minor adjustment in budget.
2. New ME programme will be sustained on self financed basis and through industry support & through industry linkages
3. The Laboratories and facilities developed through TEQIP will be maintained through Sponsored Projects and Consultancy.
4. The Teaching & Research Assistantships will be sustained through industry support, through Industry – Institute linkages developed during the TEQIP – II. In addition, this aspect will be considered in IRG & future budget of the institute.
5. Funds for the maintenance and permanent updating of the equipment, upgradation of Library, faculty, and staff developments will be considered in IRG and the institute budget.
6. The University is committed to integrate new technological development into engineering education and improve the quality of programmes offered on a long stand basis, which implies that the fund requirement for upgradation of UG and PG Laboratories and research facilities of the institute will be considered in future budgets and IRG of the institute.

The University is fully committed in implementing this project, its specific objectives and actions and in reaching the expected results. To this purpose, it will provide the necessary human and materials resources, including faculty time and administrative support when fully implemented and after project closure, the University will cover the necessary operational costs to assure quality academic services to the students

## 2.15 Provide procurement plane for the first 18 months for goods & civil work in Table - 36

Table-36

### 18-month Procurement Plan for Works and Goods\* for Sub-Component 1.2

All the Equipments /Software of Rs 10.0 Lacs and above are listed as per the advice in the workshop on 28.7.10

Name of the institution with location: PEC University of Technology , CHANDIGARH ,U.T.

Package No.	SI No	Activities	Description of Works/ Goods	Estimated Cost	Method of Procurement	Design/ Investigation Completion/ Specification	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding Document (Date)**	Bids	
										Invitation (Date)	Opening (Date)
1	2	3	4	5	6	7	8	9	10	11	12
1	I.	<b>Starting New ME Programmes with an student strength of 25 in each programme</b>  ME CSE (Information Security)	Encase Software with Forensics utilities  Apple IMAC Workstations podcasting and multimedia software and others	0.10  0.15	As per the institute GFR	Within One Month of the start of the activity	Within One Month from 7	Within One Month From 8	Within One Month From 9	Within One Month From 10	Within One Month From 11
	II.	ME Product Design/Industrial design	Softwares CATIA &MSC 3D Printer System 3D Scanning and Inspection	0.16 0.15 0.50	DO	Do	Do	Do	Do	Do	Do
	III.	ME Total Quality Engineering & Management (TQEM)	Software & Hardware	0.20	DO	DO	DO	DO	DO	DO	DO

2	I	<b>Developing New PG Labs and New Research Facility:</b>  Industrial Materials & Metallurgical PG lab	Isostatic Press scale Rolling Mill Differential Thermal Analysis Metallurgical Microscope with Image grabbing system & Potentiostat Vacuum Sintering Furnace  Micro Machining Centre with accessories  Unigraphics N.T. Workstation and softwares  Dynamometer for wide range of cutting force measurement for tool condition monitoring  CNC Machine with accessories	0.15 0.10 0.12 0.12 0.10 0.10 0.30 0.10 0.12 0.15	DO	DO	DO	DO	DO	DO	DO
	II.	Advance Manufacturing Technology Lab	Package (s) for advanced manufacturing Equipments & software's, Furniture's, Books etc	0.40	DO	DO	DO	DO	DO	DO	DO
	III	Energy Auditing Lab	Equipment/meter Calibration Bench Energy Manager, other Equipments & software's, Furniture's, Books etc	0.35	DO	DO	DO	DO	DO	DO	DO
	IV	New Research Facility	GC-MS FT-IR	0.45							
	3	I	<b>Upgradation of existing PG Labs</b>  Communication & Embedded Lab	Embedded System Lab  Communication Lab	0.20	DO	DO	DO	DO	DO	DO
	II	Manufacturing Lab	Twin-wire arc spraying machine	0.17	DO	DO	DO	DO	DO	DO	DO

	III	Highways Lab	Highways equipment	0.20	DO	DO	DO	DO	DO	DO	DO
	IV	Work study & ergonomics Lab	Encase Software with forensic utilities Apple IMAC workstations with podcasting and multimedia software	0.10 0.15	DO	DO	DO	DO	DO	DO	DO
	V	Electrical Engg PG Control /EnergyH.V lab	H.V.,Control,etc lab	0.13	DO	DO	DO	DO	DO	DO	DO
	VII	Computer Centre	Wireless Mesh access point and other network equipment	0.20	DO	DO	DO	DO	DO	DO	DO
4	I	<b>Digitization of library Procurement of e-books CD Bank</b>	E-journals through INDEST E-books for all departments Digitization software/services	0.14 0.15 0.30	DO	DO	DO	DO	DO	DO	DO
5.	I	<b>Civil Works</b>	Alteration and modernization of labs and class rooms	0.40	Through PWD Chd. Admin.	DO	DO	DO	DO	DO	DO

\* Goods cover Equipment, Furniture and Books and Learning Resources

\*\* Applicable in case of 'Prior Review' by the World Bank.

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

**Table-37**  
**18-month Procurement Plan for Consultant Services for Sub-Component 1.2**

Name of the institution with location: PEC University of Technology , CHANDIGARH ,U.T.

Sl. No.	Activities	Description of Services	Estimated Cost (Rs)	Methods of Selection @	TOR Finalization (Date)	Advertisement (Date)	◆RFP Final Draft to be Forwarded to the Bank (Date)**	No Objection from the Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	SWOT Analysis & TNA	Carrying out SWOT /TNA Of the Institute	0.05	UT Depute	Within one month	Within one month	N.A	N.A	Within one month	Within one month	Within one month		Within one month	Within one month
2	Financial Auditing	Financial Budget /Expenditure Auditing	0.03	As per Norm	DO	DO	N.A	N.A	DO	DO	DO	DO	DO	DO
3	Traning In house	Mentoring And others Etc.	0.04	Do	DO	DO	N.A	N.A	DO	DO	DO	DO	DO	DO

◆RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

\*\* Applicable in case of 'Prior Review' by the World Bank

@ State whether (i) Single firm or individual; or (ii) Competitive procedure. If Competitive, then state whether Quality & Cost Based Selection (QCBS) or Quality Based Selection (QBS) procedure.

## 2.16 SPECIFIC ACHIVEMENTS OF THE INSTITUTE

As listed below

S No	Achievements	Annexure no.
1	International Publication 2009-10	Annexure - IX
2	National Publication 2009-10	Annexure - X
3	Book Publication 2007-10	Annexure -XI
4	Conference Organized 2007-09	Annexure - XII
5	Seminar /Workshop Organized 2008-09	Annexure - XIII
6	Specialized Training Program Conducted 2008-09	Annexure - XIV
7	Short Term Courses Organized	Annexure -XV
8	Collaborations /MOUs	Annexure - XVI
9	Placements through campus (2007-10)	Annexure - XVII
10	All India Ranking (2008-11)	Annexure - XVIII
11	Renowned Alumni of PEC University Of Technology	Annexure - XIX
12	Industry Interaction through Consultancy (2008-10)	Annexure - XX
13	Extension Lecture (2007-10)	Annexure - XXI
14	Sponsored Research projects (2009-10)	Annexure- XXII
15	In house research projects (2008-10)	Annexure- XXIII



**PAPERS PUBLISHED IN INTERNATIONAL JOURNALS (2009)**

- Divya Bansal, Sanjeev Sofat "Prevention of DoS Attacks in 802.11s Wireless Mesh Networks", CiiT International Journals, ISSN 0974 – 9756 & Online: ISSN 0974 – 9640, June 2009
- Manvjeet Kaur, Sanjeev Sofat "A Review on Biometric Security breaches and remedies", CiiT International Journal for Biometrics and Bioinformatics, Print: ISSN 0974 – 9675 & Online: ISSN 0974 – 956X, June 2009.
- Padmavati, Ajay Mittal, Navdeep Kaur "Performance evaluation of scale invariant feature transform", International Journal of Recent Trends in Engineering, Vol 1, No. 2, Pg 236-240, Academy Publishers, 2009.
- Gagandeep Makkar, R K Challa Jitender Kumar Chhabra "A Review on Object Oriented Design Metrics", CiiT International Journal for Software Engineering and Technology, Print: ISSN 0974 – 9748 & Online: ISSN 0974 – 9632, June 2009.
- S K Singh, R K Srivastava & Siby John Studies on soil contamination due to used motor oil and its remediation *Canadian Geotechnical Journal (accepted on April 24, 2009)*
- Siby John Sustainability based decision-support system for solid waste management *Int. J. of Environment and Waste Management 2009*
- D.R. Prajapati & P B Mahapatra "A Simple and Effective R Chart to Monitor the Process Variance", **International Journal of Quality and Reliability Management (IJQRM)**, Vol. 26, Issue 5, pp. 497-512, Emerald Publication, U. K., 2009.
- D.R. Prajapati & P B Mahapatra "Control Charts for Variables to Monitor the Process Mean and Dispersion: A Literature Review", **International Journal of Productivity and Quality Management (IJPQM)**, Vol. 4, No. 4, pp. 476-520, Inderscience Publication, USA, 2009
- D.R. Prajapati & P B Mahapatra "Economic Comparison of Proposed  $\bar{X}$  Chart with MEWMA", **International Journal of Quality and Reliability Management**, Emerald publication, USA (**In Press**), **2009**
- D.R. Prajapati & P B Mahapatra "Damage Assessment of FRP Composite Materials using Izod Test", **International Journal of Performability Engineering, (In Press), 2009**
- Kumar S., Singh T. P. & Sethi B. L. "Surface alloying of OHNS die steel by EDM process using Inconel", *Int. Journal of Machining & Machinability of Materials*, Vol. 6, No. 3/4, pp 176-193, 2009
- Kumar S., Singh T. P. & Sethi B. L. "Surface modification of D2 die steel by material transfer during electrical discharge machining", *Int. Journal of Materials & Product Technology*, accepted for publication, 2009
- Alakesh Manna "Optimization of AFM parameters during finishing of Al – 6063 alloy cylindrical surface" *International Journal of Machining and Forming Technology*, Vol 1, Issue ¾, 2009 PP 237 – 248.,2009

Alakesh Manna	“Micro machining of electrically non conductive Al <sub>2</sub> O <sub>3</sub> ceramic” International Journal of Machining and Forming Technology Vol 1, Issue ½ , PP 101 - 112,2009
Alakesh Manna	“Current status and Application of abrasive flow machining processes: A Review” International Journal of Engineering Manufacturing Vol 223, No. B7, 2009 PP 809-820.
Alakesh Manna	“A study on wire deflection of WEDM based on finite difference and Newmarks Methods” International Journal of Manufacturing Technology Research. 2009 Vol 1 Issue ¾.
Alakesh Manna	“FNN based online monitoring of flank wear during turning of EN 31 steel.” International Journal of Machining and Machinability of Materials Vol 8, No ½ 2010, PP 76 - 86 2009
Neena Gupta	Reliability of OCDMA MAN Syatem using wavelength – Sine matrix encoding nad decoding Techniques in ICFAI University; Journal of Electrical and Electronics Engineering Vol: 2 No 1 2009
Nagender Sah	CSP Algorithm in predicting and optimizing the path loss of wireless empirical propagation models; in the International Journal of Computer and Electrical Engineering (IJCEE) published by IACSIT PP 464-472 vol 1 No; 4 Oct 2009 Singapore.
Nagender Sah Neelam Rup Parkash	Performance evaluation of Hand – Off scheme with cell breathing concept in WCDMA in International Journal of Advancements in Computing Technologies (IJSACT) published by AICIT; PP 7 -15 Vol 1 No 2, Dec 2009 south Korea
RJ Hans Gill, Madhu Raka, Ranjeet Sehmi and Sucheta	A unified simple proof of a conjecture of Woods for $n \leq 6$ , Journal of Number Theory 129(2009)1000-1010
RJ Hans Gill, Madhu Raka Ranjeet Sehmi	On conjectures of Minkowski and Woods for $n = 7$ , Journal of Number Theory 129(2009)1011-1033
Sukhbir Kaur, Vasundhara Singh, Gulshan Kumar, G.L.Kad, Jasvinder Singh	“A short and facile synthesis of 2-(1Z)-(3- hydroxy-3, 7- dimethylocta-1, 6-dienyl)-1, 4-benzenediol and 1-(3- methoxypropanoyl)-2, 4, 5-trimethoxybenzene isolated from Cordia alliodora”, Natural Product Research, 2009, in press.
Rajni Rati, Sukhbir Kaur	Preparation , Characterisation and catalyst activity of MMT-clay exchanged sulphonic acid fuctionalized ionic liquid for transesterification of b-ketoesters, Catalysis Communication, 11 (2010) 503-507.
Asha Goel and GL Garg	Continuity of Maps in terms of Cluster Points, International Journal of pure and Applied Mathematics, Bulgaria, Vol 51, No. 3, 2009, 431-435.
Satyendra Singh S.B. Krupanidhi	“Sol-Gel Template Growth, Structural Characterization and Formation Mechanism of Ferroelectric SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> Nanotubes”, Nanoscience and Nanotechnology Letters 1, 8-12, 2009
Satyendra Singh Neelam Kumari, K B R Varma and S.B. Krupanidhi	“Synthesis, Structural Characterization and Formation Mechanism of Ferroelectric Bismuth Vanadate Nanotubes”, J. Nanosci. Nanotechnol 9, 6549-6553 (2009)

Satyendra Singh  
S.B. Krupanidhi

“Synthesis, Characterization and growth Mechanism of Barium Zirconate Nanotubes, Current Nanoscience 5, 339-343, 2009

Satyendra Singh  
S.B. Krupanidhi

“Fabrication and phase Transformation in crystalline nano particles of  $PbZrO_3$  derived by Sol-Gel, , Current Nanoscience 5, 489-492, 2009

Satyendra Singh  
Amit Kumar Mondal  
and S.B. Krupanidhi

“Synthesis, Characterization of Crystalline cubic Bi<sub>1.5</sub>ZnNb<sub>1.5</sub>O<sub>7</sub> niobate pyrochlore (Bi<sub>1.5</sub>ZnNb<sub>1.5</sub>O<sub>7</sub>) Nano particals derived by Sol Gel, Adv. Sci Lett. 2 356 – 359 (2009)

Vasishta, Seema

“Modernization of Library and Information Services in Technical Higher Education Institutions in North India: State-of-the-Art-Report.” IFLA Journal; 3, 2008, pp 286-294. <http://archive.ifla.org/V/ifulaj/IFLA-Journal-3-2008.pdf>

**RESEARCH PAPERS PUBLISHED IN NATIONAL JOURNALS (2009)**

Tripta Kumari Goyal & Aalok Sood	Revenue Losses at Signalized Intersections on the Chandigarh Road Network Highways'Vol 37, No.3, pp 9-19, March 2009, The Indian Roads Congress, A case study' Indian , New Delhi
N.M. Sharma & Tripta Kumari Goyal	Drainage Problems in Hill Roads and their Remedial Measures – A Case Study'Indian Highways'Vol 37, No.2, pp 41-54, February 2009, The Indian Roads Congress, New Delhi
Umesh Sharma & Siby John	Vehicular Noise Pollution in Silence Zones of Chandigarh (India) <i>Journal of Institution of Engineers (India)</i> (accepted for publication in 2009)
Umesh Sharma & Siby John	Studies on traffic related noise pollution in commercial areas of Chandigarh (India) <i>Indian Highways 36 (10) IRC New Delhi</i>
Deepak Bagai	“Electronic Waste”, Everyman’s Science, National Journal of Indian Science Congress Association, Vol XL111, No 5, December 08- January 09, pp 323-325
Kumar S., Singh R., Singh T. P. & Sethi B. L Kumar S., Singh R.,	‘Surface modification by electrical discharge machining: A review’, <i>Journal of Materials Processing Technology</i> , Vol. 209, No. 8, pp 3675-3687, 2009
Singh T. P. & Sethi B. L	Comparison of material transfer in electrical discharge machining of AISI H13 die steel’, <i>Proc. of I Mech E, Journal of Mechanical Engg. Science, Part C</i> , Vol. 223, pp 1733-1740, 2009.
Uma Batra	“Thermal spray coating of abradable Ni based composite, <i>Surface Engineering</i> , 2009, Volume 25, No.4, pp 284-286
V.P.Singh	“Coupled bending – bending – torsional vibration analysis of Turbo machine blades” <i>Journal of Institution of Engineers (India)</i> Vol 90; pp 3-6, 2009.
Thareja Priyavrat	‘The instruments of excellence For Foundrymen’, <i>FOUNDRY, A Journal of Progressive Metal Casters</i> , Vol. xxi, No. 4, issue 124, July/Aug 2009, pp 33-36.
Thareja Priyavrat	“Competitiveness Through Defect Mitigation Professed In A Low Pressure Die Casting Facility”, <i>Journal of Education in Engineering and Technology</i> , Vol 2 No 1 Jan-June 08, National Institute of Technical Teacher Training and Research, Chandigarh. pp 1-7.
Thareja P	A Total Quality Organization Thro’ People (Part 22) P2P- schema for a Pupil’s Development, <i>FOUNDRY, A Journal of Progressive Metal Casters</i> , Vol. xxi, No. 4, issue 124, July/Aug 2009, pp 41-48
Thareja P	‘A Total Quality Organization Thro’ People’, (Part 21) Lean People, Mean People, Green People, <i>FOUNDRY, An Indian Journal For Progressive Metal Casters</i> , Vol XXI, No 2, issue 123, May/June 2009, pp 41-48
Thareja P & Mannu Thareja	‘A Total Quality Organization Thro’ People: (Part 20) ‘Propel People Properly to Prosperity’, <i>FOUNDRY, An Indian Journal for Progressive Metal Casters</i> , Vol XXI, No 2, issue 122, March/April 2009.

Thareja Priyavrat “A Total Quality Organization Thro’ People: (Part 19) ‘Spring A Spanner In The Sprocket’, Foundry, An Indian Journal For Progressive Metal Casters, Vol Xxi, No 1, Jan / Feb.

P Thareja ‘A Total Quality Organisation Through People: (Part 18): 8-D ate thy problems FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 6, Nov/Dec

P Thareja ‘A Total Quality Organisation Through People: (Part 17): I M Possible Problem Solver FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 5, Sept/Oct

Thareja P A Total Quality Organization Thro’ People People: (Part 16) ‘Each one of is Capable’, FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 4, July / Aug, also at <http://www.Foundry-Planet.com/>

P Thareja ‘A Total Quality Organisation Through People: (Part 15 )’, ‘Winning thru; Idiosyncrasies,, FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 3, May/June

P Thareja ‘A Total Quality Organisation Through People: (Part 14) Sustainable Improvements to world class operations’, FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 2, Mar/Apr

P Thareja ‘A Total Quality Organisation through People: (Part 13) Competent Intrapreneurship’, FOUNDRY, An Indian Journal For Progressive Metal Casters, Vol XX, No 1, Jan/Feb.

R M Belokar & R N Nauhria “Framework for Design and Development of a Competitive Manpower System (CMPS) Through Axiomatic Design for Manufacturing Enterprise – A Case Study”, Volume 33, Number 3, pp 1-9, A Journal published by NITIE, Powai, Vihar lake Mumbai. July- September 2009.

Manish Deo Sharma, R M Belokar “Future Technologies for Storage Media- a literature review” April 2009, The Multi-faceted Technology Journal for Industry Technology Trends, Volume No.10 No.4, September 2007 pp 43-48 Reference No. ISSN 0972-5040.

Deepak Bhutani, R M Belokar “Analysis of Thermal Errors in CNC machine tool”, The Multi-faceted Technology Journal for Industry *Technology Trends*, Volume No 10,No.6, June 2009, , Reference No: ISSN 0972-5040

P Thareja D(R) E (A) Ming ‘Quality’ on the wall [Deming For A Quality World], Quality World, Vol VI, No 5, Nov 2008.

P Thareja D(R) E (A) Ming For A Quality World (Deming never demeaned People. The meaning is provided by Education & Training: Part IId), Quality World, Vol VI, No 5, June 2008. Thareja Priyavrat ‘Let us elect the Significant Candidate, Statistically’ Quality World, Apr 2009.

Thareja Priyavrat ‘It is Bad Result- A case of Six Sigma analysis’, Quality World, May 2009

Thareja Priyavrat Indispensable Quality Change Quality World, June 2009.

Thareja Priyavrat, Lovesh Malhotra, Varun Prashar Petals of a blossoming personality, Quality World, July 2009.

- P Thareja  
Let Each child be titled Deming D(R) E (A) Ming For A Quality World [Part 4],  
Quality World, Vol VI, No 5, Dec 2008.
- P Thareja & Nikhil Dhawan  
Total Quality Management; how much is total? Quality World, Vol VI, No 5,  
May, 2008.
- Vasundhra Singh  
Sukhbir Kaur, Rajni Ratti  
Govardhan .L.Kad  
Jasvinder Singh  
“Acidic Task specific ionic liquid catalyzed synthesis  
dihydropyrimidinones; Indian Journal of Chemistry Section B 2009
- Anju Singla  
“Job satisfaction and employee organizational commitment in small and  
medium enterprises”- An Empirical Study Business review St. Josephs College  
of Business Administration, Bangalore, Col 4, No 1 & 2, June – Oct, 2009.
- Rajesh S Pynganil  
Anju Singla  
Effect of Quality work life on work life balance: An empirical  
Analysis, J K Journal of Management and Technology, Vol. 1, No. 2, 2009, Pg.  
189-199
- Anju Singla  
Monika Mittal  
Rajesh S Pynganil  
A Challenge for Indian BPO’s, Gurukul Business Review, the Journal  
of FMS, Vol. 6 2010, Gurukul Kangri University, Haridwar

**BOOKS PUBLISHED**

1. Deepa Sharma  
Bhupendra Singh  
*Science Technology and Society*, New Age International (p) Limited Publishers, New Delhi, 2006
2. Deepa Sharma,  
Bhupendra Singh  
*Environmental Studies*, New Age International (p) Limited Publishers, New Delhi, 2006
3. Bhupendra Singh  
*8086 Assembly Language Programming*, Dhanpat Rai Publishing Co Ltd (KK Group), New Delhi 2007
4. Dr Neena Gupta  
Written a contributory chapter entitled *WiMAX Technology for Broadband Wireless Communication* in HANDBOOK of WiMAX “WiMAX Standards and Applications” (Volume III) of FLORIDA ATLANTIC UNIVERSITY BOCA RATON, FLORIDA published by CRC Press, CRC-45474 CH003. 18: 31 Page No. 37-55 , Oct 2007
5. Bhupendra Singh  
*8086 Assembly language Programming*, Dhanpat Rai & Publishing Company (K K Group), 2007
6. Dr Vasundhara Singh  
Book Chapter in “ Ionic liquids in synthesis” 2nd edition by Peter Wasserscheid and Tom Welton Wiley-VCH, Weinheim, October ,2007  
M.Vaultier, Vasundhara Singh, A. Kirschning , Task Specific Ionic Liquids (TSILs): A New Generation of Soluble Supports for Supported Organic Synthesis (SPOS)
7. Seema Vasishta  
Electronic Information Resources Management: The New Alley. In Book Entitled “Libraries In Digital Environment: Problems And Prospects” Edited By Sunil Kumar Satpathy, Chandrakant Swain, Bijayalaxmi Rautaray. Mahamaya Publishing House, New Delhi, 2007 Pp 81-94
8. Dr. R.K. Khitoliya  
“Environmental Management & Conservation- Vol. I ” APH Publications, New Delhi, 2008.
9. Dr. R.K. Khitoliya  
“Environmental Management & Conservation- Vol. II ” APH Publications, New Delhi, 2008.
10. Dr. R.K. Khitoliya  
“Rural Development and Panchayati Raj” Kanishka Publishers, New Delhi. 2008.
11. Vasishta Seema  
Book Chapter “Knack of Information Literacy for Effective Utilization of Electronic Information Resources” in book entitled "Recent Trends in Technical Education" edited by R. Hariharan, Macmillan Publishers India Ltd., New Delhi, 2008, pp 595-610.

12. Naveen, Sanjeev Sofat “Content Management System Effort Estimation using Bagging Predictors” to be published in SPRINGER book “Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering”
13. Naveen, Sanjeev Sofat “Region of Interest Labeling of Ultrasound Abdominal Images using Hausdorff Distances” published in SPRINGER book “Innovative Algorithms and Techniques in Automation, Industrial Electronics and Telecommunications” September, XVI, 572 p., , ISBN: 978-1-4020-8734-9 2008
14. Bhupendra Singh Microprocessor 1, Dhanpat Rai and Sons (K K Group), 2009
15. Bhupendra Singh Microprocessor-2, Dhanpat Rai and Sons (K K Group), 2009
16. Bhupendra Singh Computer Architecture, Dhanpat Rai and Sons (K K Group), 2009
17. Vasundhara Singh,  
M.Vaultier “ Task specific ionic liquids as new phases for supported organic synthesis” in Ionic liquid in synthesis by Peter Wasserscheid, Thomas Welton, Wiley-VCH,2008.
- 18.Vasundhara Singh “Clay nanocomposites as environmental friendly catalysts for green chemical synthesis”in BIO-NANO-GEO Sciences-The future Challenges by A.Srivastava and I.Roy, Ane Books Pvt.Ltd, 2009.
19. Siby John Monitoring of water and soil pollutants, Chapter in Book *Environmental Monitoring of Road Projects*, B R Publishing Corporation, New Delhi, 2009
- 20.Ajay Mittal Programming in C: A practical approach. Pearson Education, 2010.



**CONFERENCE ORGANISED**

1. Dr A Manna  
National Conference on Advances in Materials and Manufacturing Technology 2007 on 21 & 22<sup>nd</sup> Sept., 2007 at Mechanical Engineering Department, PEC, Chandigarh sponsored by AICTE, New Delhi
2. Dr D R Prajapati  
Conference on the “Recent Developments in Manufacturing and Quality Management (RDMQM- 2007)” held on 5<sup>th</sup> -6<sup>th</sup> October, 2007
3. Tilak Thakur,  
Jaimala Gambhir  
National Conference on Problems Practices and Prospects in Power Distribution System Operation and Control (PPPPDSOC-2009)” on 23-24<sup>th</sup> at Punjab Engineering College (DU), Chandigarh

**SEMINAR / WORKSHOP/ SYMPOSIUM**

1. Production Engg. Deptt. Seminar on “Basic Principles of Fire Safety, Fire Protection and its Control” through SME chapter on 14<sup>th</sup> March 2009.
2. Production Engg. Deptt. Seminar on “Building Better Products with Finite Element Analysis” on 9<sup>th</sup> April 2009.
3. Computer Sci. Engg. Deptt. Cyber Security Research Centre and ICICI bank jointly organized a one day workshop on “Preventions & Investigations of Financial & Cyber Crimes” for Chandigarh Police in Punjab Engineering College, Chandigarh, Workshop, December 02, 2008
4. Computer Sci. Engg. Deptt. Cyber Security Research Centre in association with CDAC, Bangalore has jointly organized two day workshop on “Advances in Information Security” in Punjab Engineering College, Chandigarh, Workshop, February 24-25, 2009
5. Sucheta One day Symposium in Mathematics at the Department of Applied Sciences, Punjab Engineering College, Chandigarh on March 04, 2009.
6. Civil Engg. Deptt. National workshop on Geotechnology for Infrastructure Development (GID 2009) in October 2008
7. Metallurgical Engg. Deptt. IRCA certified Lead Auditor *Training + Workshop*, per ISO 9001:2008. Organized from 31<sup>st</sup> Dec 08 to 5<sup>th</sup> January 09,
8. Production Engg. Deptt. Workshop on “Latest Development in Welding” on 25<sup>th</sup> April 2009

**SPECILISED TRAINING PROGRAMME**

1. Aeronautical Engg Deptt.      8 weeks Aeronautics Courses for Management Trainees of Hindustan Aeronautics Limited (HAL), Bangalore, 2008
  
2. Aeronautical Engg. Deptt.      8 weeks Aeronautics Course for Management Trainees of Hindustan Aeronautics Limited, Bangalore during 25.5.09 to 17.7.09

**SHORT-TERM COURSES**

1. Neelam Rup Prakash Organized a short term training program and worked as Coordinator for the same on “Digital Hardware Design & Synthesis” in Punjab Engg. College from 2<sup>nd</sup> January to 5<sup>th</sup> January, 2007, 12 candidates from academic & 4 candidates from Industry
2. Neena Gupta Organized a short term training program and worked as Coordinator for the same on “Optical Communication System Design and implementation” for one week duration during January 8-12, 2007 at E & EC Deptt, PEC, Chandigarh 13 candidates from academics & 7 candidates from Industry
3. Neelu Jain Organized a short term training program and worked as Coordinator for the same on “DSP and Its Application” 4-6 July, 2006 at E&Ec Deptt, Punjab Engg. College, 26 candidates from academics and industry
4. Divya Organized a short term training program and worked as Co- coordinator for the same on “Optical Communication System Design and implementation” for one week duration during January 8-12, 2007 at E & EC Deptt, PEC, Chandigarh 13 candidates from academics & 7 candidates from Industry
5. Jyoti Kedia Organized a short term training program and worked as co-coordinator on “Digital Hardware Design & Synthesis” in Punjab Engg. College from 2<sup>nd</sup> January to 5<sup>th</sup> January, 2007 12 candidates from academic & 4 candidates from Industry

**(VI) COLLABORATIVE ARRANGEMENTS WITH INDUSTRY & INSTITUTE**

## Collaborations through Memoranda of Understandings (MoUs)

S.No	Industry/ Institute under MoU	In the field of	Year of inception
1.	Cyber Security and Research Centre	Information Security Project Research	2007
2.	JCB Collaboration Initiated	"Construction & Equipment Technology requirement in Rural India"	2008
3.	Central Scientific and Research Organization (CSIO) Sector 30, Chandigarh.	Collaborative Research Training Academics	2008
4.	Philips India Limited	Collaborative Research Industrial Projects	2008
5.	ABB Limited India.	Robotics Design	2009
6.	<u>ESIGELEC, France Collaboration</u>	Academic	2009
7.	<u>UWA, Australia Collaboration</u>	Academic	2009
8.	Intel	To provide access to Multi Core Curriculum framework jointly developed by Intel and IIT Kanpur for augmenting the existing curriculum in undergraduate and post graduate engineering course for preparing the PEC students on skills required by Industry on Multi Core Technologies To promote Research. To initiate Faculty Development Programmes	2009
9.	Alstom India Limited	To promote Internship To promote Research To initiate Student Placement	2009
10.	IBM		2010

**PLACEMENT OF STUDENTS THROUGH CAMPUS INTERVIEWS- 2007**

As many as 66 companies visited the campus during the current session. Out of the eligible students, a total number of 321 undergraduate students have been placed and 226 students have got more than one offer. In addition to this, 70 Post Graduate students have also been placed. Laing O'Rourke has offered the highest international package at Rs.9.00 lacs p.a. (6000 Dirham per month) and 'Yahoo' has offered the highest Indian package at Rs.6.79 lacs p.a. This year (i.e. 2006-2007), the average salary offered per student works out to be Rs.3.25 lacs. Percentage of placement has increased from 95% to 97.87% and particularly in Metallurgy stream the percentage has increased from 78% to 100%.

Branch	Eligible Students			Selected Students			Balance			% of Selected Students		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
<b>Aeronautical</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>8</b>	<b>3</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>89</b>	<b>100</b>	<b>92</b>
<b>Civil</b>	<b>40</b>	<b>12</b>	<b>52</b>	<b>40</b>	<b>12</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Computer Science</b>	<b>21</b>	<b>6</b>	<b>27</b>	<b>20</b>	<b>6</b>	<b>26</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>95</b>	<b>100</b>	<b>96</b>
<b>Electrical</b>	<b>36</b>	<b>21</b>	<b>57</b>	<b>36</b>	<b>21</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Electronics</b>	<b>37</b>	<b>14</b>	<b>51</b>	<b>34</b>	<b>14</b>	<b>48</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>100</b>	<b>100</b>	<b>94</b>
<b>Information Technology</b>	<b>10</b>	<b>16</b>	<b>26</b>	<b>10</b>	<b>16</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>100</b>	<b>100</b>
<b>Mechanical</b>	<b>43</b>	<b>1</b>	<b>44</b>	<b>43</b>	<b>1</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>--</b>	<b>100</b>
<b>Metallurgy</b>	<b>27</b>	<b>6</b>	<b>33</b>	<b>27</b>	<b>6</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Production</b>	<b>22</b>	<b>4</b>	<b>26</b>	<b>20</b>	<b>4</b>	<b>24</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>91</b>	<b>100</b>	<b>92</b>
<b>Total</b>	<b>245</b>	<b>83</b>	<b>328</b>	<b>238</b>	<b>83</b>	<b>321</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>97</b>	<b>100</b>	<b>98</b>
<b>In addition to above SEVENTY students are selected from Post graduate programmes</b>												

## PLACEMENT OF STUDENTS THROUGH CAMPUS INTERVIEWS- 2008

The pay packages offered also witnessed a quantum leap with first-time recruiter Microsoft offering a whopping 9.21lacs to 5 students of the college; Co, Schlumberger, Goldman Sachs, Tata Motors, Freescale (Motorola) and Laing O'Rourke made offers in the range of 5.5 to more than 7 lacs. With a total of 66 companies that came for recruiting, the total number of offers made was a dazzling 561. More than 150 students also ended up with multiple offers.

Branch	Eligible Students			Selected Students			Balance			% of Selected Students		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
<b>Aeronautical</b>	11	3	14	11	3	14	0	0	0	100	100	100
<b>Civil</b>	36	10	46	36	10	46	0	0	0	100	100	100
<b>Computer Science</b>	21	6	27	21	6	27	0	0	0	100	100	100
<b>Electrical</b>	40	12	52	39	12	51	1	0	1	97.5	100	98.08
<b>Electronics</b>	45	9	54	45	9	54	0	0	0	100	100	100
<b>Information Technology</b>	15	9	24	15	9	24	0	0	0	100	100	100
<b>Mechanical</b>	52	0	52	52	0	52	0	0	0	100	100	100
<b>Metallurgy</b>	20	8	28	18	8	26	2	0	2	90	100	92.86
<b>Production</b>	22	4	26	22	4	26	0	0	0	100	100	100
<b>Total</b>	262	61	323	259	61	320	3	0	3	98.85	100	99.07
<b>In addition to above forty four students are selected from Post graduate programmes</b>												

## PLACEMENT OF STUDENTS THROUGH CAMPUS INTERVIEWS-2009

The consistent efforts of Placement Cell were able to have 67 companies on the campus during placement session 2008-2009. A total number of 304 undergraduate students have been placed and 191 students got double placement. In addition to this 28 Post Graduate students have been placed. The highest salary has been offered by CISCO, BPCL & IOCL as Rs.8.6 lacs p.a, Rs.6.9 lacs & Rs. 6.7 lacs p.a. (CTC) respectively.

Branch	Eligible Students			Selected Students			Balance			% of Selected Students		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Aeronautical	9	4	13	7	3	10	2	1	3	77.78	78.00	76.92
Civil	31	8	39	30	8	38	1	0	1	96.77	100.00	97.44
Computer Science	27	4	31	23	4	27	4	0	4	85.19	100.00	87.10
Electrical	33	12	45	26	12	38	7	0	7	78.79	100.00	84.44
Electronics	53	12	65	48	12	60	5	0	5	90.57	100.00	92.31
Information Technology	19	13	32	16	13	29	3	0	3	84.21	100.00	90.63
Mechanical	54	0	54	52	0	52	2	0	2	96.30	0.00	96.30
Metallurgy	19	8	27	19	8	27	0	0	0	100.00	100.00	100.00
Production	23	2	25	21	2	23	2	0	2	91.30	100.00	92.00
<b>Total</b>	<b>268</b>	<b>63</b>	<b>331</b>	<b>242</b>	<b>62</b>	<b>304</b>	<b>26</b>	<b>1</b>	<b>27</b>	<b>90.30</b>	<b>98.41</b>	<b>91.84</b>
<b>In addition to above twenty eight students are selected from Post graduate programmes</b>												



**(X) INSTITUTE ALL INDIA RANKING**

**2010-11**

**OUTLOOK INDIA** survey has rated **PEC University of Technology, Chandigarh 19th amongst the Top 50 Engineering Colleges (Government and Private) in India.**

- **PEC ranked 19th by Outlook**

**Competition Success Review-GHRDC** Engineering College Survey 2010 has rated **PEC University of Technology, Chandigarh 6th amongst the Top Engineering Colleges/Institutes in India.**

- **PEC ranked 6th by CSR-GHRDC**

**2009-10**

**OUTLOOK INDIA** survey has rated **PEC University of Technology, Chandigarh 17th amongst the Top 75 Engineering Colleges (Government and Private) in India.**

- **PEC ranked 17th by Outlook**

**MINT** survey has rated **PEC University of Technology, Chandigarh**, 16th amongst the top 30 Government Engineering Colleges in India including IITs and NITs. The rating is based on Intellectual Capital, Pedagogic Systems & Process, Industry Interface, Placement and Infrastructure and Support Systems of PEC.

- **PEC ranked 16th by Mint**

**Competition Success Review-GHRDC** Engineering College Survey 2009 has rated **PEC University of Technology, Chandigarh 8th amongst the top 50 Engineering Colleges/Institutes in India.**

- **PEC ranked 8th by CSR-GHRDC**

**Dataquest** - In a survey of India's Top T-Schools, PEC has been ranked 30th out of 111 Engineering Institutes including IITs/NITs.

- **PEC ranked 30th by Dataquest**

**2008-09**

**OUTLOOK INDIA** survey has rated **Punjab Engineering College, Chandigarh , 15th amongst the top 35 Government Engineering Colleges in India**

- PEC ranked 15th by Outlook

Hindustan Times Group's **MINT C-FORE** survey has rated Punjab Engineering College, Chandigarh , 16th amongst the top 50 Government Engineering Colleges in India including IITs and NITs. The rating is based on Intellectual Capital, Pedagogic Systems & Process, Industry Interface, Placement and Infrastructure and Support Systems of PEC.

- PEC ranked 16th by Mint C-Fore

Rank	Name of Institute	City	IC	II	I	PP	PS	GT
------	-------------------	------	----	----	---	----	----	----

IC: Intellectual capital (600), II: Industry Interface (300), I: Infrastructure (650), PP: Placement Performance (400), PS: Pedagogic system (200). GT: Grand Total (2,150)

1	IIT	Kharagpur	497	218	566.8	306.9	180	<b>1,768</b>
2	IIT	Kanpur	359	165	573.8	291.4	183	<b>1,572</b>
3	IIT	Delhi	376	234	467.2	305.8	179	<b>1,563</b>
4	IIT	Mumbai	373	102	531.5	280.3	182	<b>1,469</b>
5	IIT	Chennai	449	136	510.8	193.1	178	<b>1,467</b>
6	IIT	Roorkee	325	169	494	314.7	164	<b>1,466</b>
7	College of Engineering, Anna Univ.	Chennai	288	205	423	259	154	<b>1,329</b>
8	IT, BHU	Varanasi	302	74	429.3	293	160	<b>1,259</b>
9	IIT	Guwahati	258	85	411.1	304.7	170	<b>1,230</b>
10	ISM University	Dhanbad	255	104	416.1	285.9	140	<b>1,201</b>
11	NIT	Warangal	270	77	405.8	265.5	160	<b>1,179</b>
12	NIT	Trichy	258	54	399.6	299.9	160	<b>1,172</b>
13	Motilal Nehru National Institute of Technology	Allahabad	249	80	416.2	253	164	<b>1,163</b>
14	NIT	Surathkal	251	71	414	262.1	155	<b>1,153</b>
15	<b>Punjab Engineering College</b>	<b>Chandigarh</b>	<b>228</b>	<b>95</b>	<b>412.3</b>	<b>244.1</b>	<b>160</b>	<b>1,139</b>
16	Delhi College of Engineering	New Delhi	226	84	388.1	293.6	142	<b>1,134</b>
17	<del>IIT (Please see Clarification)</del>	Hyderabad	239	150	433.2	286.7	13	1,122
17	Netaji Subhash Inst. of Technology	New Delhi	207	69	387.4	272.6	150	<b>1,086</b>
18	MNIT	Jaipur	250	66	369.1	263.6	130	<b>1,079</b>
19	College of Engineering	Pune	224	79	381.2	247.8	140	<b>1,072</b>
20	NIT	Rourkela	220	70	391	240	150	<b>1,071</b>
21	Autonomous College of Engineering, Andhra Univ.	Visakhapatnam	250	79	372.9	248.9	120	<b>1,070</b>
22	NIT	Calicut	233	56	404.9	233.4	120	<b>1,048</b>
23	Harcourt Butler Technological Institute	Kanpur	205	77	344.2	253.6	160	<b>1,040</b>
24	Coimbatore Institute of Technology	Coimbatore	217	75	356.4	244.3	140	<b>1,032</b>
25	IIIT	Allahabad	183	90	366	253.8	120	<b>1,012</b>
26	JNTI	Hyderabad	191	61	347.3	260.5	120	<b>980</b>
27	NIT	Hamirpur	199	57	361.4	235.1	124	<b>976</b>
29	Sir M. Visvesvaraya Inst. of Technology (Please see Clarification)	Bangalore	193	54	334.1	234.6	120	<b>936</b>
28	<b>BIT, Sindri</b>	<b>Dhanbad</b>	<b>169</b>	<b>54</b>	<b>361.3</b>	<b>242.9</b>	<b>100</b>	<b>928</b>
29	Shri G.S. Institute of Technology & Science	Indore	202	67	333.3	178.4	140	<b>921</b>
30	University College of Engg (A) Osmania Univ.	Hyderabad	191	59	340.8	215.5	110	<b>916</b>
31	Guru Nanak Dev Engg College	Ludhiana	166	60	371.2	184.6	133	<b>915</b>
32	NIT	Silchar	186	54	319.3	211.1	80	<b>851</b>
33	CUSAT	Kochi	166	36	309.9	200.5	100	<b>813</b>
34	Jabalpur Engineering College	Jabalpur	133	50	345.8	178.7	80	<b>787</b>

Field Code Changed

Some government engineering colleges which were ranked in the Top 35 in 2007 did not respond to the Outlook-Synovate survey this year. These include Faculty of Engineering & Technology, Jadavpur University, Calcutta; Bengal Engineering and Science University, Shibpur, Howrah; MANIT, Bhopal; VNIT, Nagpur; SVNIT, Surat; NIT Kurukshetra; NIT Kozhikode; Institute of Chemical Technology, Mumbai University; College of Engineering, Thiruvananthapuram; and NIT, Jamshedpur

**Post Script:** The above list has been revised as per the Clarification in *Outlook Print* Issue dated 14 July, 2008, Page No 2:

### **Clarification**

*Our research agency Synovate informs us that it has wrongly classified and ranked some colleges in Outlooks listing of top professional colleges. IIIT Hyderabad is a [private engineering college](#) (revised rank: 2), Sir M. Visveswaraya Institute of Technology, Bangalore, is a [private engineering college](#) (revised rank: 13) and BIT, Sindri, is a government engineering college (revised rank: 28) (last edited July 3, 2008 -- SD)*



[ABOUT US](#) [CONTACT US](#) [SUBSCRIBE](#) [ADVERTISING RATES](#) [COPYRIGHT & DISCLAIMER](#)

[outlooktraveller.com](http://outlooktraveller.com) | [outlookmoney.com](http://outlookmoney.com)  
© Outlook Publishing (India) Private Limited



Rank	Name of institute	P: Pvt G: Govt	City	Selection process (227)	Academic excellence (214)	Personality devt & indl interface (173)	Infrastructure (206)	Placement (180)	Overall score (1,000)
1	IIT	G	Kharagpur	210.9	204.9	147.7	193.5	170.8	927.8
2	IIT	G	Kanpur	207.7	203.3	148.6	194.3	158.2	912.1
3	IIT	G	Bombay	210.5	187.6	143.4	194.3	160.4	896.2
4	IIT	G	Madras	210.3	189.6	148.5	180.1	149.8	878.3
5	IIT	G	Roorkee	214.8	192.3	117.9	178.7	149.5	853.2
6	IT BHU	G	Varanasi	193.1	173.6	144.8	180.3	154.1	845.9
7	BITS	P	Pilani	178.9	164.6	153.3	179.8	151.4	828.0
8	IIT	G	Guwahati	190.3	166.8	126.1	150.0	158.3	791.5
9	Delhi Technological University*	G	Delhi	172.5	147.8	136.4	169.4	157.0	783.1
10	College of Engineering, Anna University	G	Guindy	179.0	170.1	137.5	162.7	130.3	779.6
11	IIIT	P	Hyderabad	148.1	169.3	148.4	160.8	152.5	779.1
12	ISMU	G	Dhanbad	201.9	169.6	110.1	161.5	130.7	773.8
13	BIT	P	Mesra, Ranchi	163.5	169.9	135.2	156.2	142.6	767.4
14	NIT	G	Surathkal	174.0	153.5	129.3	165.4	141.4	763.6
15	NSIT	G	Delhi	144.8	164.0	143.9	160.1	150.2	763.0
16	MNNIT	G	Allahabad	162.2	163.7	126.4	148.4	146.0	746.7
17	PSG College of Technology	P	Coimbatore	146.3	153.2	132.8	161.0	138.9	732.2
18	IIIT	G	Allahabad	164.9	168.4	109.9	143.5	123.7	710.4
19	PEC University of Technology <sup>†</sup>	G	Chandigarh	158.3	148.8	108.1	141.8	136.7	693.7
20	Manipal Institute of Technology	P	Manipal	146.6	144.6	134.8	154.9	109.4	690.3
21	College of Engineering (COEP)	G	Pune	147.8	150.3	134.0	138.8	111.0	682.0
22	Institute of Technolgy, Nirma University	P	Ahmedabad	145.4	119.1	126.7	131.1	129.7	652.0
23	NIT	G	Hamirpur	138.7	141.8	104.8	130.4	130.9	646.6
24	Thapar Institute of Engg & Technology	P	Patiala	127.1	144.2	112.1	145.2	115.1	643.7
25	IIIT	G	Gwalior	140.7	148.0	117.0	119.9	113.5	639.1
26	Dhirubhai Ambani IICT	P	Gandhinagar	139.5	140.8	91.1	124.6	125.0	621
27	MNIT	G	Jaipur	128.2	139.2	108.7	124.9	119.0	620.0
28	VJTI	P	Mumbai	116.5	118.1	94.0	130.6	116.7	575.9
29	Mepco Schlenk Engineering College	P	Sivakasi	119.6	120.0	102.8	138.5	80.4	561.3
30	PES College of Engineering	P	Mandya	137.9	131.0	91.1	107.5	86.2	553.7
31	SSN College of Engineering	P	Chennai	114.9	125.5	92.7	124.3	85.9	543.3
32	National Institute of Engineering	P	Mysore	132.5	116.9	97.5	99.1	93.5	539.5
33	BIT	G	Sindri	133.2	111.2	91.2	110.7	92.4	538.7
34	GITAM	P	Vishakhapatnam	114.6	111.6	94.7	127.3	87.2	535.4
35	SGS Institute of Technology & Science	G	Indore	123.4	113.1	89.9	119.6	82.9	528.9
36	Thiagarajar College of Engineering	P	Madurai	109.1	114.2	103.6	111.2	86.1	524.2
37	Chaitanya Bharathi Inst of Technology	P	Hyderabad	124.0	109.4	94.7	95.8	90.5	514.4
38	MIT College of Engineering	P	Pune	110.5	109.2	89.8	97.8	105.7	513.0
39	Guru Nanak Dev Engineering College	G	Ludhiana	121.4	107.5	84.0	112.6	85.8	511.3
40	Amrita School of Engineering	P	Coimbatore	93.8	106.5	103.6	117.4	88.2	509.5
41	Bangalore Institute of Technology	P	Bangalore	140.2	116.3	64.8	91.5	96.6	509.4
42	Shri Ramdeo Baba KN Engg College	P	Nagpur	94.6	105.4	98.5	91.2	75.8	465.5
43	DJ Sanghvi College of Engineering	P	Mumbai	89.6	109.3	91.4	81.3	88.6	460.2
44	Sona College of Technology	P	Salem	91.9	97.6	89.4	97.3	63.1	439.3
45	Kongu Engineering College	P	Erode	92.2	79.4	92.7	103.1	61.4	428.8
46	Sri Venkateswara College of Engineering	P	Chittoor	101.4	94.8	70.3	99.3	58.4	424.2
47	KL University**	P	Guntur	81.2	76.0	70.8	97.2	63.3	388.5
48	Acharya Institute of Technology	P	Bangalore	107.7	70.3	64.4	74.0	70.2	386.6
49	Sir M. Visvesvaraya Inst of Technolgy	P	Bangalore	85.0	59.6	76.4	84.3	75.1	380.4
50	Muffakham Jah College of Engineering	P	Hyderabad	101.5	78.1	67.1	67.6	62.9	377.2

TOP PROFESSIONAL COLLEGES: RANKINGS

## Top 75 Engineering Colleges

Rank Name of Institute P/G City S.P (450) A.E (600) I(195) P&IL (255) T.S (1500)

*P.G: P Pvt G Govt, S.P: Selection process, A.E: Academic excellence, I: Infrastructure, P&IL: Placements & industry links, T.S: Total score*

Rank	Name of Institute	P/G	City	S.P (450)	A.E (600)	I(195)	P&IL (255)	T.S (1500)
1	IIT	G	Kharagpur	377.6	503.5	163.6	214.0	<b>1258.8</b>
2	IIT	G	Bombay	350.2	467.0	151.8	198.5	<b>1167.4</b>
3	IIT	G	Kanpur	343.6	458.1	148.9	194.7	<b>1145.3</b>
4	IIT	G	Delhi	342.3	456.4	148.3	194.0	<b>1140.9</b>
5	IIT	G	Madras	331.8	442.4	143.8	188.0	<b>1106.1</b>
6	BITS	P	Pilani	310.6	414.2	134.6	176.0	<b>1035.5</b>
7	IIT	G	Roorkee	307.9	410.5	133.4	174.5	<b>1026.2</b>
8	IT-BHU	G	Varanasi	276.2	368.2	119.7	156.5	<b>920.5</b>
9	IIT	G	Guwahati	262.2	349.6	113.6	148.6	<b>874.0</b>
10	College of Engg, Anna Univ	G	Chennai	256.0	341.3	110.9	145.1	<b>853.3</b>
11	ISM Univ	G	Dhanbad	255.5	340.6	110.7	144.8	<b>851.5</b>
12	Jadavpur Univ, Faculty of Engg	G	Calcutta	248.7	331.6	107.8	140.9	<b>828.9</b>
13	BIT Mesra	P	Ranchi	246.0	328.0	106.6	139.4	<b>820.1</b>
14	DCE	G	Delhi	244.3	325.8	105.9	138.5	<b>814.4</b>
15	NIT	G	Trichy	242.4	323.3	105.1	137.4	<b>808.1</b>
16	NIT	G	Warangal	241.3	321.8	104.6	136.8	<b>804.4</b>
17	PEC University of Technology	G	Chandigarh	235.9	314.5	102.2	133.7	<b>786.4</b>
18	NIT	G	Suratkal	231.2	308.2	100.2	131.0	<b>770.6</b>
19	PSG College of Technology	P	Coimbatore	230.5	307.3	99.9	130.6	<b>768.4</b>
20	Bengal Engg & Sc Univ, Shibpur	G	Howrah	230.4	307.1	99.8	130.5	<b>767.8</b>
21	Thapar Inst of Engg & Tech	P	Patiala	228.7	304.9	99.1	129.6	<b>762.2</b>
22	Motilal Nehru National Inst of Tech	G	Allahabad	225.4	300.6	97.7	127.7	<b>751.4</b>
23	NSIT	G	Delhi	223.5	298.0	96.8	126.6	<b>744.9</b>
24	VNIT	G	Nagpur	220.0	293.4	95.3	124.7	<b>733.4</b>

25	IIIT	P	Hyderabad	219.5	292.7	95.1	124.4	<b>731.7</b>
26	Govt College of Engineering	G	Pune	218.0	290.7	94.5	123.6	<b>726.8</b>
27	IIIT	G	Allahabad	215.9	287.9	93.6	122.4	<b>719.8</b>
28	NIT	G	Rourkela	215.6	287.5	93.4	122.2	<b>718.7</b>
29	Harcourt Butler Tech Institute	G	Kanpur	214.2	285.6	92.8	121.4	<b>714.1</b>
30	MNIT	G	Jaipur	211.9	282.5	91.8	120.1	<b>706.2</b>
31	SVNIT	G	Surat	211.7	282.2	91.7	119.9	<b>705.6</b>
32	NIT	G	Calicut	211.6	282.1	91.7	119.9	<b>705.2</b>
33	MANIT	G	Bhopal	209.1	278.8	90.6	118.5	<b>696.9</b>
34	VJTI	P	Mumbai	208.9	278.5	90.5	118.3	<b>696.2</b>
35	College of Engineering	G	Visakhapatnam	208.6	278.1	90.4	118.2	<b>695.2</b>
36	Manipal Inst of Technology	P	Manipal	208.1	277.5	90.2	117.9	<b>693.7</b>
37	NIT	G	Kurukshetra	207.8	277.1	90.1	117.8	<b>692.8</b>
38	Coimbatore Inst of Tech	G	Coimbatore	207.8	277.0	90.0	117.7	<b>692.5</b>
39	VIT	P	Vellore	207.3	276.3	89.8	117.4	<b>690.9</b>
40	NIT	G	Jamshedpur	206.9	275.8	89.6	117.2	<b>689.6</b>
41	JNTU	G	Hyderabad	204.9	273.2	88.8	116.1	<b>683.1</b>
42	NIT	G	Durgapur	203.4	271.2	88.1	115.3	<b>678.1</b>
43	RVCE	P	Bangalore	202.7	270.3	87.8	114.9	<b>675.6</b>
44	ICT Mumbai University	G	Mumbai	202.3	269.8	87.7	114.6	<b>674.4</b>
45	DA-IICT	P	Gandhinagar	199.9	266.5	86.6	113.2	<b>666.2</b>
46	MIT	P	Pune	198.5	264.7	86.0	112.5	<b>661.7</b>
47	UVCE	G	Bangalore	198.4	264.5	86.0	112.4	<b>661.3</b>
48	SSN College of Engg	P	Chennai	195.2	260.3	84.6	110.6	<b>650.7</b>
49	UCE, Osmania University	G	Hyderabad	194.8	259.8	84.4	110.4	<b>649.4</b>
50	Nirma Univ of Science & Tech	P	Ahmedabad	194.0	258.6	84.1	109.9	<b>646.6</b>
51	College of Engineering	G	Thiruvananthapuram	192.8	257.0	83.5	109.2	<b>642.6</b>
52	Sardar Patel Coll of Engg	P	Mumbai	190.9	254.5	82.7	108.2	<b>636.3</b>
53	NIT	G	Hamirpur	190.9	254.5	82.7	108.2	<b>636.3</b>
54	PES Inst of Technology	P	Bangalore	190.1	253.5	82.4	107.7	<b>633.8</b>
55	SRM Institute of Sc &	P	Chennai	188.4	251.2	81.7	106.8	<b>628.1</b>

Rank	Institution	Type	City	Score 1	Score 2	Score 3	Score 4	Total
	Tech							
56	BMS College of Engineering	P	Bangalore	186.2	248.2	80.7	105.5	<b>620.6</b>
57	Amrita Inst of Tech & Sc	P	Coimbatore	185.3	247.1	80.3	105.0	<b>617.8</b>
58	SASTRA	P	Thanjavur	184.8	246.4	80.1	104.7	<b>616.0</b>
59	National Institute of Engg	P	Mysore	184.7	246.2	80.0	104.6	<b>615.5</b>
60	Bangalore Inst of Tech	P	Bangalore	183.2	244.3	79.4	103.8	<b>610.8</b>
61	Chaitanya Bharathi Inst of Tech	P	Hyderabad	181.6	242.1	78.7	102.9	<b>605.2</b>
62	MEPCO Schlenk Engg College	P	Sivakasi	178.9	238.6	77.5	101.4	<b>596.4</b>
63	ICFAI Inst of Sc & Tech	P	Hyderabad	178.8	238.4	77.5	101.3	<b>596.0</b>
64	JNTU	G	Kakinada	178.3	237.7	77.3	101.0	<b>594.3</b>
65	SJ College of Engineering	P	Mysore	178.3	237.7	77.3	101.0	<b>594.3</b>
66	NIT	G	Jalandhar	177.7	237.0	77.0	100.7	<b>592.4</b>
67	MS Ramaiah Inst of Tech	P	Bangalore	173.5	231.4	75.2	98.3	<b>578.4</b>
68	Satyabhama Engg College	P	Chennai	172.7	230.2	74.8	97.8	<b>575.5</b>
69	Karunya University	P	Coimbatore	172.0	229.3	74.5	97.5	<b>573.3</b>
70	Sri Ramdeobaba KN Engg College	P	Nagpur	171.3	228.3	74.2	97.0	<b>570.8</b>
71	Kongu Engg College	P	Erode	170.9	227.8	74.0	96.8	<b>569.6</b>
72	NIT	G	Raipur	170.7	227.6	74.0	96.7	<b>569.1</b>
73	SGS Inst of Tech & Sc	G	Indore	170.6	227.5	73.9	96.7	<b>568.8</b>
74	NIT	G	Patna	170.5	227.3	73.9	96.6	<b>568.2</b>
75	IIIT	P	Bangalore	169.6	226.1	73.5	96.1	<b>565.3</b>

*Figures in all columns have been rounded to one decimal place.*

Printed From: <http://www.outlookindia.com/fullprint.asp?choice=1&fodname=20090622&fname=ALead+Essay+%28F%29&sid=>



Rank 2009	Rank 2008	Name	City	Latest scores					Total (2,800)
				Intellectual capital (700)	Pedagogic systems & processes (500)	Industry interface (450)	Placements (450)	Infrastructure & support systems (700)	
1	3	Indian Institute of Technology, Bombay	Mumbai	613	435	390	401	591	2,430
2	2	Indian Institute of Technology, Kanpur	Kanpur	606	431	378	390	603	2,408
3	4	Indian Institute of Technology, Delhi	Delhi	609	418	384	397	593	2,401
4	1	Indian Institute of Technology, Kharagpur	Kharagpur	615	416	359	383	580	2,353
5	5	Indian Institute of Technology, Madras	Chennai	571	442	403	371	518	2,305
6	7	Indian Institute of Technology, Guwahati	Guwahati	563	400	348	373	588	2,272
7	6	Indian Institute of Technology, Roorkee	Roorkee	554	366	327	370	520	2,137
8	8	Institute of Technology, Banaras Hindu University	Varanasi	512	342	320	368	515	2,057
9	9	College of Engineering, Anna University	Chennai	500	372	326	346	503	2,047
10	11	Jadavpur University, Faculty of Engineering & Technology	Kolkata	495	346	333	335	473	1,982
11	18	Mumbai University Institute of Chemical Technology	Mumbai	493	336	355	341	453	1,978
12	13	National Institute of Technology, Trichy	Tiruchirapalli	483	343	314	351	486	1,977
13	10	Indian School of Mines University	Dhanbad	488	342	335	332	475	1,972
14	12	Delhi College of Engineering	New Delhi	476	317	331	364	482	1,970
15	14	National Institute of Technology, Warangal	Warangal	477	324	318	349	480	1,948
16	16	Punjab Engineering College	Chandigarh	474	329	306	348	478	1,935
17	15	National Institute of Technology, Suratkal	Suratkal	451	327	308	338	485	1,909
18	21	National Institute of Technology, Calicut	Kozhikode	469	320	302	317	480	1,888
19	19	Netaji Subhas Institute of Technology	New Delhi	472	327	273	350	452	1,874
20	17	Bengal Engineering and Science University, Shibpur	Howrah	432	333	315	340	429	1,849
21	20	Indian Institute of Information Technology, Allahabad	Allahabad	435	319	300	335	459	1,848
22	22	Motilal Nehru National Institute of Technology	Allahabad	442	321	274	361	449	1,847
23	23	Malaviya National Institute of Technology	Jaipur	441	323	278	351	453	1,846
24	24	National Institute of Technology, Kurukshetra	Kurukshetra	446	319	294	341	445	1,845
25	25	Visvesvaraya National Institute of Technology, Nagpur	Nagpur	463	317	296	313	452	1,841
26	31	National Institute of Technology, Rourkela	Rourkela	459	309	263	336	457	1,824
27	32	College of Engineering, Trivandrum	Thiruvananthapuram	450	321	267	325	456	1,819
28	37	Model Engineering College, Thrikkakara	Kochi	444	319	291	307	455	1,816
29	30	College of Engineering, Pune	Pune	439	320	292	304	451	1,806
30	27	Maulana Azad National Institute of Technology, Bhopal	Bhopal	444	313	277	297	454	1,785

30<sup>th</sup> Rank out 111 Engineering Institutes including IITs/NITs.

Institute	City
IIT Kharagpur	Kharagpur
IIT Delhi	New Delhi
IIT Madras	Chennai
IIT Kanpur	Kanpur
IIT Roorkee	Roorkee
IIT Guwahati	Guwahati
IIT Hyderabad	Hyderabad
BITS Pilani	Pilani
NIT Surathkal	Surathkal
IT BHU	Varanasi
NIT Warangal	Warangal
Delhi Technological University	New Delhi
BIT Mesra	Ranchi
IIIT Allahabad	Allahabad
NIT Tiruchirappalli	Thuvakudy
NIT Calicut	Calicut
Netaji Subhash Institute of Technology	New Delhi
Anna University	Chennai
Jadavpur University	Kolkata
Dhirubhai Ambani Institute of ICT	Gandhinagar
Thapar University	Patiala
NIT Rourkela	Rourkela
PSG College of Technology	Coimbatore
Manipal Institute of Technology	Manipal
Sir M Visvesvaraya Institute of Technology	Bengaluru
NIT Hamirpur	Hamirpur
Amrita School of Engineering	Coimbatore
NIT Jamshedpur	Jamshedpur
Harcourt Butler Technological Institute	Kanpur
PEC University of Technology	Chandigarh
NIT Silchar	Silchar
NIT Kurukshetra	Kurukshetra
PES Institute of Technology (PESIT)	Bengaluru
SSN College of Engineering	Chennai
RV College of Engineering	Bengaluru
Institute of Technology,irma University	Ahmedabad
Galgotias College of Engineering and Technology	Greater Noida
New Horizon College of Engineering	Bengaluru
Sardar Vallabhbhai National Institute of Technology (SVNIT)	Surat
Andhra University College of Engineering	Visakhapatnam
Amity School of Engineering & Technology	Noida
BMS College of Engineering	Bengaluru
University College of Engineering, Osmania University	Hyderabad
MEPCO Schlenk Engineering College	Sivakasi
Bharati Vidyapeeth University College of Engineering	Pune
Rungta College of Engineering & Technology	Bhilai
Maharaja Agrasen Institute of Technology	New Delhi
NIT Durgapur	Durgapur
Dr BR Ambedkar National Institute of Technology	Jalandhar
College of Engineering and Technology	Bhubaneswar
Mumabi Institute of Chemical Technology	Mumbai
University Visvesvaraya College of Engineering	Bengaluru
Thiagarajar College of Engineering	Madurai
Shri GS Institute of Technology & Science	Indore
Maharaja Surajmal Institute of Technology	New Delhi

**Top T-Schools 2009** (Tuesday, December 22, 2009)

30<sup>th</sup> Rank

Institute	City
Panimalar Engineering College	Chennai
Oriental Institutes of Science and Technology	Bhopal
National Institute of Engineering	Mysore
West Bengal University of Technology	Kolkata
Dayananda Sagar College of Engineering	Bengaluru
Army Institute of Technology	Pune
Orissa Engineering College	Bhubaneswar
Shri Shankaracharya College of Engineering & Technology	Bhilai
Chaitanya Bharathi Institute of Technology	Hyderabad
DAV Institute of Engineering & Technology	Jalandhar
BS Abdur Rahman University	Chennai
Rajagiri School of Engineering & Technology	Kochi
Kumaraguru College of Technology	Coimbatore
Bannari Amman Institute of Technology	Erode
Karunya University	Coimbatore
Technocrats Institute of Technology (TIT)	Bhopal
Adi Shankara Institute of Engineering & Technology	Ernakulam
ABES Engineering College	Ghaziabad
IMS Engineering College	Ghaziabad
KLEF University	Guntur
NIT Raipur	Raipur
BNM Institute of Technology	Bengaluru
Laxmi Devi Institute of Engineering and Technology	Alwar
College of Engineering	Ponda
Jamia Millia Islamia, Faculty of Engineering and Technology	New Delhi
M Kumarasamy College of Engineering	Karur
Guru Nanak Dev Engineering College	Ludhiana
Gitam University	Visakhapatnam
Dehradun Institute of Technology	Dehradun
Thakral College of Technology	Bhopal
HKBK College of Engineering	Bengaluru
Vasavi College of Engineering	Hyderabad
Truba Institute of Engineering & Information Technology	Bhopal
BIT Sindri	Dhanbad
Sagar Institute of Technology	Bhopal
College of Engineering	Trivandrum
Sambhram Institute of Technology	Bengaluru
GMR Institute of Technology	Rajam
SJB Institute of Technology	Bengaluru
Ideal Institute of Technology	Ghaziabad
Babu Banarsi Das Institute of Technology	Ghaziabad
SDM College of Engineering and Technology	Dharwad
APS College of Engineering	Bengaluru
GH Patel College of Engineering and Technology	Anand
Maharishi Arvind Institute of Engineering & Technology	Jaipur
JNTU College of Engineering	Anantapur
Azad Institute of Engineering & Technology	Lucknow
Bapuji Institute of Engineering & Technology	Davangere
SUS College of Engineering and Technology	Tangori
Sree Chitra Thirunal College of Engineering	Thiruvananthapuram
Ghousia College of Engineering	Ramanagaram
KS Institute of Technology	Bengaluru
Institute of Engineering & Rural Technology	Allahabad
Bundelkhand Institute of Engineering & Technology	Jhansi
Khaja Banda Nawaz College of Engineering	Gulbarga
Finolex Academy of Management and Technology	Ratnagiri





## Overall Ranking of Top Engineering Colleges

Overall Rank	Group Rank	Name of the Engineering Colleges	Infrastructure (Physical & Academic) (365)	Faculty, Research, Consultancy, MDP & Other Programmes (505)	Admission, Curriculum & Delivery System (310)	Placement (Domestic & International)/ Industry Interface (470)	Total (1650)
--------------	------------	----------------------------------	--	--	---	--	--------------

### Ranking of Top Engineering Colleges in India

#### Supreme Engineering College

1)	①	Indian Institute of Technology, Kharagpur, West Bengal	318.74	295.49	310.00	410.00	1334.22
----	---	--	--------	--------	--------	--------	---------

IIT Kharagpur stands supreme amongst the top Engineering Colleges / Institutes in India

### Ranking of Top Engineering Colleges of Super Excellence

2)	①	Indian Institute of Technology Madras, Chennai, Tamil Nadu	265.74	316.26	310.00	377.42	1269.42
3)	②	Birla Institute of Technology - Mesra, Ranchi, Jharkhand	241.73	226.39	305.18	364.17	1137.47
4)	③	Delhi Technological University (Formerly Delhi College of Engineering), Bawana Road, Delhi	250.79	192.82	310.00	362.97	1116.59
5)	④	Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh	223.91	173.13	310.00	343.42	1050.46
6)	⑤	Punjab Engineering College (Deemed University), Chandigarh, Punjab	188.29	183.02	310.00	340.90	1022.21
7)	⑥	National Institute of Technology, Surathkal, Karnataka	222.32	172.12	310.00	308.26	1012.70
8)	⑦	College of Engineering, Pune, Maharashtra	191.72	195.73	280.00	328.95	996.41
9)	⑧	National Institute of Technology, Calicut, Kerala	172.27	190.26	310.00	312.02	984.54
10)	⑨	Visvesvaraya National Institute of Technology, Nagpur, Maharashtra	211.55	132.88	310.00	326.48	980.91
11)	⑩	Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat	171.51	173.76	310.00	322.42	977.69
12)	⑪	Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, Gujarat	137.56	281.30	280.00	271.08	969.94
13)	⑫	Veermata Jijabai Technological Institute (VJTI), Mumbai, Maharashtra	195.56	124.51	280.00	364.79	964.86
14)	⑬	Manipal Institute of Technology, Manipal, Karnataka	197.39	146.81	273.01	346.26	963.47

We appreciate the participation of top Engineering Colleges in India and for providing detailed information for our survey (especially IIT Kharagpur, IIT Chennai), NIT's and others. Remaining IIT's / NIT's and few others did not respond for reasons unknown to us. We do not know where they stand in competing with the institutes that participated in this survey.

### Ranking of Top Engineering Colleges of Excellence

15)	①	Jawaharlal Nehru Technological University Hyderabad, Hyderabad, Andhra Pradesh	157.56	147.83	250.00	324.20	879.58
-----	---	--	--------	--------	--------	--------	--------





## Overall Ranking of Top 50 Engineering Colleges/Institutes

Overall Rank	Group Rank	Name of the Engineering Colleges	Infrastructure (Physical & Academic) (365)	Faculty, Research, Consultancy, MDP & Other Programmes (455)	Admission, Curriculum & Delivery System (310)	Placement (Domestic & International)/ Industry Interface (470)	Total (1600)
<b>Top 10 Engineering Colleges</b>							
<b>Top Engineering College Of Supreme Excellence</b>							
1)	①	Indian Institute Of Technology, Kanpur, Uttar Pradesh	278.10	354.42	251.41	361.05	1244.97
<b>IIT Kanpur Holds A Supreme Position Amongst The Top Engineering Colleges/Institutes In India</b>							
<b>Engineering Colleges Of Super Excellence</b>							
2)	②	Delhi College Of Engineering, Delhi	219.89	275.44	240.00	314.34	1049.67
3)	③	Birla Institute Of Technology - Mesra, Ranchi, Jharkhand	196.68	281.98	240.00	290.34	1008.99
4)	④	National Institute Of Technology, Warangal, Andhra Pradesh	224.08	241.15	225.00	297.81	988.04
5)	⑤	Netaji Subhas Institute Of Technology (Formerly, Delhi Institute Of Technology), Dwarka, New Delhi	193.71	229.40	240.00	311.14	974.24
6)	⑥	Motilal Nehru National Institute Of Technology, Allahabad, Uttar Pradesh	207.34	244.93	225.00	284.96	962.22
7)	⑦	National Institute Of Technology, Calicut, Kerala	194.94	237.65	225.00	290.37	947.96
8)	⑧	Punjab Engineering College (Deemed University), Chandigarh, Punjab	183.34	237.87	240.00	256.82	918.03
9)	⑨	VIT University, Vellore, Tamil Nadu	183.57	243.09	210.00	263.47	900.13
10)	⑩	College Of Engineering, Pune, Maharashtra	186.97	227.84	219.00	248.54	882.35
<p>We appreciate the participation of Top Engineering Colleges in India who provided detailed information for our Survey (especially IIT, Kanpur). Many IITs/NITS and few others did not provide data required for reasons unknown and therefore we do not know where they stand in competing with the institutes that participated in this Survey.</p>							
<b>Engineering Colleges Of Excellence</b>							
11)	①	Dhirubhai Ambani Institute Of Information And Communication Technology, Gandhinagar, Gujarat	139.67	251.51	225.00	240.64	856.82
12)	②	Institute Of Technology, Nirma University Of Science And Technology, Ahmedabad, Gujarat	170.52	230.30	210.00	228.10	838.92
13)	③	Guru Nanak Dev Engineering College, Ludhiana, Punjab	152.51	233.32	210.00	215.44	811.26
14)	④	Amrita School Of Engineering, Coimbatore, Tamil Nadu	187.53	184.73	195.00	227.64	794.90
15)	⑤	Shri G. S. Institute Of Technology And Science (SGSITS), Indore, Madhya Pradesh	164.66	186.39	204.00	224.42	779.47
16)	⑥	Dayananda Sagar College Of Engineering, Bengaluru, Karnataka	172.16	183.35	206.61	206.16	768.28



Overall Rank	Group Rank	Name of the Engineering Colleges	Infrastructure (Physical & Academic) (365)	Faculty, Research, Consultancy, MDP & Other Programmes (455)	Admission, Curriculum & Delivery System (310)	Placement (Domestic & International)/ Industry Interface (470)	Total (1600)
17)	7	Faculty Of Engineering & Technology (SRM Engineering College) SRM University, Chennai, Tamil Nadu	182.05	174.04	209.14	189.28	754.51
18)	8	National Institute Of Technology, Hamirpur, Himachal Pradesh	129.38	161.09	225.00	227.57	743.04
19)	9	MEPCO Schlenk Engineering College, Sivakasi, Tamil Nadu	175.20	141.27	219.00	197.86	733.32
20)	10	Maharishi Markandeshwar Engineering College, Ambala, Haryana	125.23	168.92	225.00	203.60	722.75
21)	11	Lovely Professional University, Phagwara, Punjab	156.64	143.91	197.14	215.33	713.02
22)	12	Kongu Engineering College, Erode, Tamil Nadu	156.66	144.49	204.00	199.73	704.89
23)	13	Shri Shankaracharya College Of Engineering And Technology, Bhilai, Chhattisgarh	126.27	163.94	210.00	194.67	694.87
24)	14	Rungta College Of Engineering & Technology, Bhilai, Chhattisgarh	141.27	141.34	210.00	192.24	684.85
25)	15	Sreenidhi Institute Of Science And Technology, Hyderabad, Andhra Pradesh	119.27	165.56	225.00	162.88	672.70
26)	16	Institute Of Technology And Management, Gurgaon, Haryana	103.47	156.42	204.00	200.05	663.93
27)	17	Sikkim Manipal Institute Of Technology, Rangpo, East Sikkim	149.86	153.35	184.18	167.76	655.15
28)	18	Dharmsinh Desai University, Nadiad, Gujarat	147.86	134.80	180.00	183.26	645.92
29)	19	Jagan Nath Gupta Institute Of Engineering And Technology, Jaipur, Rajasthan	88.73	125.10	210.00	212.60	636.43
30)	20	Sri Venkateswara College Of Engineering And Technology, Chittoor, Andhra Pradesh	121.06	110.74	195.00	203.60	630.40
31)	21	Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh	105.71	124.73	216.00	177.42	623.85
32)	22	Maharishi Arvind Institute Of Engineering & Technology, Jaipur, Rajasthan	112.43	146.83	195.00	161.64	615.90
33)	23	IMS Engineering College, Ghaziabad, Uttar Pradesh	119.85	109.53	235.18	142.35	606.90
34)	24	D. K. T. E. Society's Textile & Engineering Institute, Kolhapur, Maharashtra	95.35	121.99	219.00	162.71	599.06
35)	25	HKBK College Of Engineering, Bengaluru, Karnataka	115.61	143.49	166.50	164.69	590.28
36)	26	Sona College Of Technology, Salem, Tamil Nadu	96.84	101.74	189.00	191.08	578.66
37)	27	Sahradaya College Of Engineering And Technology, Thrissur, Kerala	86.73	100.82	210.00	170.67	568.21
38)	28	SDM College Of Engineering & Technology, Dhavalgiri, Karnataka	118.03	122.28	172.50	147.90	560.70





Overall Rank	Group Rank	Name of the Engineering Colleges	Infrastructure (Physical & Academic) (365)	Faculty, Research, Consultancy, MDP & Other Programmes (455)	Admission, Curriculum & Delivery System (310)	Placement (Domestic & International)/ Industry Interface (470)	Total (1600)
<b>Promising Engineering Colleges</b>							
39)	1	Acharya Institute Of Technology, Bengaluru, Karnataka	107.43	88.01	196.50	150.87	542.80
40)	2	D A V Institute Of Engineering And Technology, Jalandhar, Punjab	94.45	95.32	189.00	157.04	535.80
41)	3	Asia Pasific Institute Of Information Technology SD India, Panipat, Haryana	65.50	155.50	151.25	156.37	528.61
42)	4	Federal Institute Of Science And Technology (FISAT), Angamaly, Kerala	78.17	74.49	185.38	181.63	519.66
43)	5	Anil Neerukonda Institute Of Technology And Sciences, Visakhapatnam, Andhra Pradesh	81.14	79.27	180.67	170.12	511.20
44)	6	Rural Engineering College, Bidar, Karnataka	95.27	85.74	193.13	129.58	503.72
45)	7	Green Hills Engineering College, Solan, Himachal Pradesh	92.16	71.84	210.00	119.80	493.80
46)	8	P.D.E.A.'s A.G. Awate College Of Engineering, Pune, Maharashtra	62.35	84.65	192.00	143.21	482.22
47)	9	Takshshila Institute Of Engineering And Technology, Jabalpur, Madhya Pradesh	93.95	76.85	195.00	104.80	470.59
48)	10	Desh Bhagat Engineering College, Mandi Gobindgarh, Punjab	85.28	87.76	210.00	75.26	458.29
49)	11	Chirala Engineering College, Chirala Prakasam, Andhra Pradesh	67.11	49.76	195.00	131.73	443.61
50)	12	St. Johns College Of Engineering And Technology, Kurnool, Andhra Pradesh	63.02	62.22	195.00	103.04	423.28

## Top Engineering Colleges (Deemed University)

Rank	Deemed University
1	Birla Institute Of Technology - Mesra, Ranchi, Jharkhand
2	Dhirubhai Ambani Institute Of Information And Communication Technology, Gandhinagar, Gujarat
3	Institute Of Technology, Nirma University Of Science And Technology, Ahmedabad, Gujarat
4	Amrita School Of Engineering, Coimbatore, Tamil Nadu
5	Faculty Of Engineering & Technology (SRM Engineering College) SRM University, Chennai, Tamil Nadu
6	Maharishi Markandeshwar Engineering College, Ambala, Haryana
7	Lovely Professional University, Phagwara, Punjab
8	Sikkim Manipal Institute Of Technology, Rangpo, East Sikkim
9	Dharmsinh Desai University, Nadiad, Gujarat

TOP 50 GOVERNMENT ENGINEERING COLLEGES			Intellectual capital (700)	Pedagogic systems & process (500)	Industry interface (450)	Placement (450)	Infrastructure & support systems (700)	Total (2800)
Rank	Name	City						
		Kharagpur	656	393	361	428	665	2503
1	IIT	Kanpur	648	390	355	427	612	2432
2	IIT	Mumbai	617	405	364	436	606	2428
3	IIT	Delhi	623	397	358	431	591	2400
4	IIT	Chennai	589	400	350	428	588	2355
5	IIT	Roorkee	533	351	353	415	554	2206
6	IIT	Guwahati	521	358	329	410	520	2138
7	IIT	Varanasi	513	342	289	396	518	2058
8	Institute of Technology, BHU	Chennai	515	342	335	382	482	2056
9	College of Engineering, Anna University	Dhanbad	507	329	335	391	491	2053
10	Indian School of Mines University	Kolkata	501	351	344	356	474	2026
11	Jadavpur University, Faculty of Engineering & Tech	New Delhi	475	326	333	395	485	2014
12	Delhi College of Engineering	Tiruchirapalli	489	352	323	352	480	1996
13	NIT	Warangal	483	333	327	351	483	1977
14	NIT	Surathkal	480	336	315	348	481	1960
15	NIT	Chandigarh	457	336	317	349	488	1947
16	Punjab Engineering College	Howrah	475	329	311	328	483	1926
17	Bengal Engineering and Science University	Mumbai	476	333	320	340	422	1891
18	Mumbai University Institute of Chemical Technology	New Delhi	448	330	274	385	452	1889
19	Netaji Subhas Institute of Technology	Allahabad	438	342	324	347	432	1883
20	IIIT	Kozhikode	463	336	282	344	455	1880
21	NIT	Allahabad	441	328	309	336	462	1876
22	Motilal Nehru National Institute of Technology	Jaipur	434	325	306	346	464	1875
23	Malaviya National Institute of Technology	Kurukshetra	452	328	303	342	448	1873
24	NIT	Nagpur	449	326	305	324	455	1859
25	VNIT	Kanpur	456	330	276	336	459	1857
26	Harcourt Butler Technological Institute	Bhopal	450	328	300	318	458	1854
27	MANIT	Surat	450	322	286	308	457	1823
28	SVNIT	Visakhapatnam	451	327	288	299	453	1818
29	Autonomous College of Engineering, Andhra University	Visakhapatnam	451	327	288	299	453	1818
30	College of Engineering	Pune	436	321	296	326	429	1808
31	NIT	Rourkela	447	324	293	307	436	1807
32	College of Engineering	Thiruvananthapuram	440	321	273	306	423	1763
33	NIT	Durgapur	443	322	266	297	426	1754
34	MIT, Anna University	Chennai	450	320	278	304	366	1718
35	Alagappa Institute of Information Technology	Karaikudi	426	318	293	295	382	1714
36	Govt College of Technology	Coimbatore	441	323	273	289	386	1712
37	Model Engineering College, Thrikkakara	Kochi	412	305	356	232	405	1710
38	Dr BR Ambedkar NIT	Jalandhar	433	314	289	278	365	1679
39	JNTU	Hyderabad	398	316	260	291	411	1676
40	University Institute of Engineering & Technology	Chandigarh	425	315	263	281	391	1675
41	Shri GS Institute of Technology & Science	Indore	396	313	261	288	415	1673
42	NIT	Hamirpur	397	315	265	272	423	1672
43	NIT	Jamshedpur	403	312	255	293	408	1671
44	Osmania University College of Engineering	Hyderabad	446	328	243	277	373	1667
45	Institute of Engineering and Technology	Lucknow	430	319	283	261	354	1647
46	Laxminarayan Institute of Technology	Nagpur	430	319	283	261	354	1647
47	YMCA Institute of Engineering	Faridabad	391	308	233	235	396	1563
48	JNTU	Kakinada	404	316	250	244	345	1559
49	SV University Engineering College	Tirupati	372	303	255	253	372	1555
50	University College of Engineering, Burla	Sambalpur	373	315	251	251	363	1553



**(VII) RENOWNED ALUMNI OF PEC UNIVERSITY OF TECHNOLOGY**

Names of renowned alumni along with outstanding contributions in their chosen professions.

- **Awtar Singh** - Renowned Geotech Consultant, Los Angeles; B.E Civil (1949)
- **Harjinder Singh Khurana**- Retired Engineer-In-Chief, P.S.E.B , B.E. Electrical (1961)
- **Vijay K Dhir** - Dean-School of Engineering and Sciences, UCLA; B.E Mechanical (1965)
- **IIMS RANA** - CHAIRMAN RAILWAY BOARD, B. E. Civil (1965)
- **Monte Ahuja** - Founder, Chairman & CEO, Transtar Industries; B.E. Mechanical (1968)
- **Raiinder Singh Manhas** - Seattle Schools Superintendent; B.E. Aeronautical (1971)
- **Sunil Saigal** - Interim Dean, College of Engineering, Professor and Chairman at Department of Civil & Environmental Engineering, University of South Florida; B.E. Civil (1978)
- **Jaspal Bhatti** - Satirist, comedian, film-maker; B.E. Electrical (1978)
- **Raman Sud** - Vice President of Engineering, OATSystems; B.E. E&EC (1981)
- **Kalpana Chawla** - Space Shuttle Columbia Astronaut; B.E. Aeronautical (1982)
- **Remi Kaler** also known as Remi Clair- North American Actor; B.E.Civil (1984)
- **Digvijay Chauhan** - Co-Founder and CTO of AskMe Corporation; B.E. E&EC (1989)
- **Kanwalinder Singh** - President, QUALCOMM India; B.E. E&EC
- **Akhil Verma** - CEO, S J Edutech (P) Ltd & President - Fastrack Computing Limited; B.E. Production (2002).
- **Sanjay Gupta** - Senior Vice President & Chief Information Officer, Heidrick & Struggles International
- **Vivek Mehra** - Co-founded Cobalt Networks in 1996. Currently, partner of VC firm August Capital
- **K Paul Singh** - Co-founder, Primus Telecom
- **Sonia Bhanot** - Ex-President & CEO, Verano
- **Arun Gupta** - Founder & CEO, NeuVis, which was later acquired by Rational.
- **Steve Sanghi** - Chairman, Chief Executive Officer and President, Microchip Technology Inc.
- **Dr.Ramesh Gupta**- Fellow IEEE, Managing Director, COMSAT Laboratories (1995-2001), Vice President, AMCOM, B. E. E & EC (1974)
- **Chander Mohan**, Former Vice Chairman PTL, B.E. Mechanical (1953)
- **Satish Dhawan**, ISRO
- **Romi Malhotra**, Head, Dell Computers, India
- **Sanjeev Aggarwal**, Head, IBM Daksh , Gurgaon
- **Rakesh Nath**, Chairman, Central Electricity Authority, New Delhi
- **Jarnail Singh**, Chief Secretary, Govt. of India

## Annexure-XX

## CONSULTANCY RECORDS FOR THE YEAR 2009-2010

Ref. No.	Type of Project	Agency	Deptt.	PI's Name	Project Title
1648	Const.	Chief Engg., Haryana State Agricultural Marketing Board, Panchkula	EED	Prof. Shiv Narain	Conducting of Departmental Examination for in-service Engineers (Civil/Electrical) of H.S.A.M
1649	Const.	Chief Engg., Haryana State Agricultural Marketing Board, Panchkula	CED	Prof. Sibhy John	Conducting of Departmental Examination for in-service Engineers (Civil/Electrical) of H.S.A.M
1650	Const.	Sub Divisional Engineer, Road Sub. Div. No. - 3, Chandigarh	Civil	Prof. Umesh Sharma	Collection of Samples for strengthening of Dakshin Marg from Junction no. 30 to 31 (Sector 25 side), Chandigarh
1651	Testing	Sub Divisional Engineer, Road Sub. Div. No. - 3, Chandigarh	Civil	Prof. Umesh Sharma	Collection of Samples for strengthening of Dakshin Marg from Junction no. 30 to 31 (Sector 38 side), Chandigarh
1652	Testing	53 Engineer Regiment, Pin 914053, C/o 56 APO	Civil	Prof. Roshan Lal	Testing of Composite Material, 150mm X 100mm X 10mm I Section Beam of 3.2 Meter Length
1653	Const.	GM Track Innvations Pvt. Ltd.	Civil	Prof. Roshan Lal	Mix Design M-25
1654	Testing	Sub Divisional Engineer, MCPH, Sub. Div -18, Chandigarh.	Civil	Prof. N.P. Devgan	Construction of 10 MGD Swerage treatment plant with duel media filters (Testing Compression strength of Cement, Concrete Cubes)
1655	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Emergency Medical Center & Fire Station at Safdarjung Airport Delhi.
1656	Const.	M/s Chopra Consulting Engg. # 1076, Sec-21B, Chandigarh.	Civil	Prof. N.P. Devgan	Checking of Structural Design and Drawings for Showroom Building at Rajpura.
1657	Const.	Executive Engineer, Division PWD(B&R)Br. Faridkot	Civil	Prof. P. K. Gupta	Testing steel of various dia's FE-500, for construction of GGS Medical College, Senate campus and Academic block for Baba Farid University of Health Science at Faridkot
1658	Testing	Sub Divisional Engineer Construction Sub. Div.-10. Chandigarh.	Civil	Prof. Umesh Sharma	Testing of Bitumen contents, Density, Gradation for Re-carpeting of internal roads in Police Complex Sector-26, Chandigarh
1659	Testing	Executive Engineer. (D) B&R, Municipal Corporation, Ludhiana, Punjab	Civil	Prof. Umesh Sharma	Testing Samples of SDBC/DBM/BM/MSS
1660	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Structural Design/Drawings for Multistoreyed Flats at Village - Himmatgarh (Dhakula) NAC Zirakpur.
1661	Const.	Bharuch Enviro Infrastructure Ltd. Ankleshwer, Gujarat	O/O Dir	Prof. Manoj Datta	Construction of Cell : 3 of new landfill at BEIL, Ankleshwar
1662	Testing	Officer on Special Duty, Vigilance Cell, UT Chandigarh..	Civil	Prof. Meena Aggarwal.	Testing of Bituminous Samples
1663	Const.	M/s Wapcos Ltd., SCO 826, 2 <sup>nd</sup> Fl, Manimajra Chandigarh	Civil	Prof. N.P. Devgan	Proof Checking of ROB Design at Taraori, Karnal
1664	Const.	Centralized Staff Selection Committee, BBMB,	Civil	Prof. Roshan	Setting and Checking of multiple choice objective-type paper(s) for

		Chandigarh.		Lal	different posts in BBMB.
1665	Testing	Executive Engineer. (D) B&R, Municipal Corporation, Ludhiana, Punjab	Civil	Prof. Umesh Sharma	Testing Samples of SDBC/DBM/BM/MSS
1666	Testing	Sub Divisional Engineer, Road Sub. Div. No. - 3, Chandigarh	Civil	Prof. Umesh Sharma	Re-carpeting of Jn No. 20 & Jn. No. 42 on Madhya Marg, Chandigarh
1667	Const.	M/s Sakshi Pharma Distributors, 182/60, Industrial Area-I, Chandigarh	Mech.	Prof. V.P. Singh	Inspection of the Vehicle for the Manufacturing defect.
1668	Const.	M/s Wapcos Ltd., SCO 826, 2 <sup>nd</sup> Fl, Manimajra Chandigarh	Dir. Office	Prof. Manoj Datta	Strengthening and Stability of banks of Sundernager Hydel Channel
1669	Testing	Sub Divisional Engineer, Road Sub. Div. No. - 5, Chandigarh	Civil	Prof. Umesh Sharma	Testing of Contents of bitumen, Density of Site for Recarpeting of Main Roads of Mauli Complex
1670	Const.	Director, Kandi Water Shed Design, Punjab P.W.D. (IB) Chandigarh	Civil	Prof. Roshan Lal	Checking of Structural Design of D.R. bridge of Kandi Canal Stage-II at R.D. 107803m.
1671	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Community Health Center at Bhuna, Fathehabad
1672	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Govt. College at Meham
1673	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. Meena Aggarwal	Testing of Bituminous Samples
1674	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. Tripta Goel	Testing of Bituminous Samples
1675	Testing	Divisional Engineer (C-1), GAMADA, Mohali	Civil	Prof. Umesh Sharma	Density test of Bituminous Concrete layer at widening of Sector dividing roads Sector 51-62, 62-63, & 61-62 at Mohali under GMADA
1676	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. P. K. Gupta	Testing of Samples for Cement, Coarse aggregate & Fine aggregate
1677	Const.	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. P. K. Gupta	Testing of Samples for Cement mortar and Cement, Concrete for Coarse aggregate & Fine aggregate
1678	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. R.R. Singh	Checking of Bitumen contents
1679	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. Umesh Sharma	Testing of Samples for Cement Coarse aggregate & Fine aggregate
1680	Testing	Executive Engineer (D), B&R, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking of Bitumen contents
1681	Testing	Corporation Engineer- C, Municipal Corporation, Ludhiana,	Civil	Prof. Umesh Sharma	Testing of Samples of DBM and SDBC for Ludhiana Malerkotla road
1682	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	Civil	Prof. S.K. Singh	Testing of Bitumen
1683	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA	Civil	Prof. Soxina	Testing of Bitumen

		Office Building, Sec-6, Panchkula, Haryana		Sood	
1684	Testing	Officer on Special Duty, Vigilance Cell, UT Chandigarh.	Civil	Prof. N.P. Devgan	Examination of Cement, Sand, Bajri, MS Conduit Pipe 26mm & 20mm, Samples
1685	Testing	Sub Divisional Engineer, MCPH Sub. Div.- 18, Chandigarh.	Civil	Prof. Sarita Singla	Construction of 10 MGD T.T plant at Diggian ( Testing of Cubes of M-25 Design mix-compressive strength)
1686	Testing	Sub Divisional Engineer, MCPH Sub. Div.- 18, Chandigarh.	Civil	Prof. Sarita Singla	Construction of 10 MGD T.T plant at Diggian ( Testing of Cubes of M-25 Design mix-compressive strength )
1687	Testing	Sub Divisional Engineer, MCPH Sub. Div.- 18, Chandigarh	Civil	Prof. Sarita Singla	Construction of 10 MGD T.T plant at Diggian ( Testing of Cubes of M-25 Design mix-Compressive strength )
1688	Testing	Executive Engineer (C) B&R, Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Testing Samples of SDBC/DBM/BM/MSS
1689	Testing	Officer on Special Duty, Vigilance Cell, UT Chandigarh.	Civil	Prof. Sarita Singla	Construction of 10 MGD T.T plant at Diggian ( Testing of Cement Sample)
1690	Const.	Executive Engineer, Pro. Sub Div -B&R, Hoshiarpur Punjab	Civil	Prof. N.P. Devgan	Checking of Structural Drawings for the work of Food Craft Institute at Hoshiarpur
1691	Const.	M/s Semi Conductor Laboratory, Sec-72, Mohali	Civil	Prof. Roshan Lal	Checking of Structural Designs & Drawings for SCL's Housing Colony
1692	Testing	Executive Engineer, Vigilance HUDA, Panchkula.	Civil	Prof. Umesh Sharma	Testing of Sample for Cement, Coarse aggregate & Fine aggregate
1693	Const.	Executive Engineer, PWD B&R, Faridkot	Civil	Prof. P. K. Gupta	Testing of steel of various dia's for construction of Modern Jail at Faridkot, Punjab
1694	Testing	Sub Divisional Engineer, Sub. Div. No -2, Chandigarh	Civil	Prof. Umesh Sharma	Testing of 50 mm thick Bituminous Macadam and 25mm thick SDBC on jn. 34, U.T Chandigarh.
1695	Const.	Engineers India Ltd. New Delhi	T&PO	Prof. K.K. Garg	Question Paper Setting for recruitment of fresh Engineering graduates as Management Trainees-2009
1696	Testing	Chief Vigilance Officer, Deptt. Local Bodies Govt. of Punjab Chandigarh.	Civil	Prof. Umesh Sharma	Collecting and Testing of samples of development works.
1697	Const.	M/s Creative Consultants, # - 2402, Sec-67, Mohali	Civil	Prof. N.P. Devgan	Proof Checking Structural Design of Judicial Complex at Samrala, Punjab
1698	Const.	M/s Renu Khanna & Associate Panchkula, Haryana	Civil	Prof. Roshan Lal	Vetting of Structural Glazing Calculations of Forest office complex at Sec- 68, Mohali
1699	Const.	M/s Sakar Foundation, SCO 53-55, Sec 17 Chandigarh	Civil	Prof. Roshan Lal	Evaluation of Foundation Drawings, Agro Mall at Rohtak, Haryana
1700	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Structural Design/Drawings for office building at Rewari
1701	Const.	Executive Engineer, Provincial Div. Pb. PWD (B&R) Chandigarh	Civil	Prof. Roshan Lal	Vetting of Structural Design of Consumer Dispute Redressal Commission office Sec-37, Chandigarh.
1702	Const.	M/s Taneja Developers & Infra. SCO-1098-99, Sec-22B, Chandigarh	Civil	Prof. N.P. Devgan	Counter Checking of Design for OHSR at TDI City-1 Mohali

1703	Testing	Chief Vigilance Officer, Deptt. Local Bodies Govt. Punjab. Chandigarh	Civil	Prof. Umesh Sharma	Testing of Samples of Improvement trust, Ludhiana.
1704	Testing	Executive Engineer, HUDA, Panchkula	App. Sci	Prof. Prem Lata	Testing of Sample for Cement, Coarse aggregate & Fine aggregate
1705	Testing	Executive Engineer, B&R, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Testing of Bitumen Contents of DBM and SDBC of Gill Road from Vishkarma Chowk to Octroi limits.
1706	Const.	Executive Engineer, B&R, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Testing of Bitumen Contents of DBM and SDBC of Gill Road from Vishkarma Chowk to Octroi limits.
1707	Const.	SE Civil Works Div., PSEB, Mohali	Civil	Prof. N.P. Devgan	Mix Design for M-20 Concrete for Civil Works in PSEB Mohali
1708	Const.	Metalex Enterprises, Plot no F-228, Ind Area, Ph 8B, Mohali	Metta.	Prof. Uma Batra	Conducting Experiments to soughtout an Industrail problem
1709	Const.	Chief Engineer, Haryana State Agricultural Marketing Board, Panchkula	Elect.	Prof. Shiv Narain	Conducting of Departmental Examination for in-service Engineers (Civil/Electrical) of H.S.A.M
1710	Const.	Dy.Man.Engg. Bharat Petroleum Crop. Ltd, Lalru LPG Plant, Pb.	Civil	Prof. N.P. Devgan	Vetting of RCC Design for retaining wall foundation for LPG plant Lalru Punjab
1711	Testing	Asstt. Engg. Sub Div-1, HP PWD Nahan HP	Civil	Prof. N.P. Devgan	Testing of Cement Pavements for Compressive strength and abrasion test.
1712	Const.	M/s Megh Raj Bansal, SCO 876 Mani Majra Chandigarh	Civil	Prof. Roshan Lal	Mix Design for M-25 Concrete at Constructoin of SCL Housing Complex at Sec-71, Mohali.
1713	Testing	Municipal Engg., Municipal Council, Mohali	Civil	Prof. Umesh Sharma	Testing of Bitumen Contents of sample from 25mm thick SDBC on roads in Phase VII, Mohali
1714	Testing	Executive Engineer, Prov. Divn. PWD, (B&R) Faridkot Punjab	Civil	Prof. P. K. Gupta	Testing of Steel of various dia's FE - 500
1715	Testing	Municipal Engg, Municipal Council, Phillaur	Civil	Prof. P. K. Gupta	Testing of Bitumenous Contents in the mixture of B.M, P.C and Sealcoat
1716	Testing	Municipal Engg. Municipal Council, Phillaur	Civil	Prof. P. K. Gupta	Testing of Bitumenous Contents in the mixture of B.M, P.C and Sealcoat
1717	Testing	Municipal Engg. Municipal Council, Phillaur	Civil	Prof. P. K. Gupta	Testing of Bitumenous Contents in the mixture of B.M, P.C and Sealcoat
1718	Const.	Chief Project Manager, Omaxe Ltd, Faridkot Punajb	Civil	Prof. P. K. Gupta	Checking of Structural Design of RCC Boundary wall for Modern Jail Kapurthala & Faridkot.
1719	Testing	Executive Engineer, Prov. Divn. PWD, (B&R) Faridkot Punjab	Civil	Prof. P. K. Gupta	Testing of Cement OPC – 43 Grade
1720	Testing	M/s Amar Nath Agg. Const. Pvt. Ltd. Panchkula	Civil	Prof. P. K. Gupta	Testing of HYSD Bars for Cement Concrete Reinforcement for Construction of Bridges and Road Chandimandir to vill. Jallah in Pk
1721	Testing	Municipal Engg. Municipal Council, Phillaur	Civil	Prof. P. K. Gupta	Testing of Bitumenous Contents in the mixture of P.C and Sealcoat for repair of road from Ex-M.C Ashwani Goel Coal Depot
1722	Const.	Municipal Engg. Municipal Council, Phillaur	Civil	Prof. P. K.	Testing of Bitumenous Contents in the mixture of P.C and Sealcoat

				Gupta	
1723	Const.	M/s Master Construction Co. # 1798, Sec- 60, Mohali	Civil	Prof. Sarita Singla	Design Mix. M - 25 for Kendriya Vidayala at Sabathu.
1724	Testing	Sub Divisional Engineer, HUDA Sub Div.-III, Pkl.	Civil	Prof. Roshan Lal	Testing of Cement Samples.
1725	Const.	Executive Engineer, C.P Div. No. 5, Chandigarh	Civil	Prof. N.P. Devgan	Vetting of Structural Design of Block – E, (frame structure only) Sec-32, Chandigarh
1726		Sub Divisional Engineer, Road, Sub Div No. 3, Chandigarh	Civil	Prof. Umesh Sharma	Widening of V-3, Road on Udyog Path into two lane dual carriageway including strengthening and recarpeting.
1727	Const.	Chief Administrator, Haryana State Agricultural Marketing Board, Panchkula	Civil	Prof. S. John	Conducting of Departmental Examination for in-service Engineers (Civil/Electrical) of H.S.A.M
1728	Const.	Executive Engineer, Prov. PWD, Naraingarh	Civil	Prof. P. K. Gupta	Testing of CBR Value and Gradation for Up- gradation of Sadhaura to Kotla to Ranjitpur road in Yanuna Nagar, Haryana
1729	Testing	Executive Engineer, (B&R), Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of Bitumen (Binder) contents for Strengthening of road
1730	Testing	Executive Engineer, (B&R), Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of Bitumen (Binder) contents for Strengthening of road
1731	Testing	Sub Divisional Engineer, Roads, Sub.Div.-3, Chandigarh	Civil	Prof. Umesh Sharma	Collection of Samples for widening of V-3, Road on Udyog Path in to two lane dual carriageway including strengthening and recarpeting.
1732	Const.	Executive Engineer, (B&R), Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of Gradation of P.C for Laying 20mm thick P.C from Rana Ka Dhaba to Pakhowal Road flats, Model Gram.
1733	Const.	Executive Engineer, (B&R), Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of Gradation of DBM. Strengthening Gill road from Viskarma Chowk to M.C limit.
1734	Const.	M/s Chopra Consulting Engg. # 1076, Sec-21B, Chandigarh	Civil	Prof. N.P. Devgan	Checking of Structural Design and Drawings for Central Watch Tower, Hospital building, Hostel & Kitchen building at Kapurthala jail
1735	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Checking of Structural Design and Drawings for teachers Flats, Sirsa
1736	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of design of Foundations of Two Roof Top sites of Indus Towers Ltd.
1737	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Structural Drawings/Designs for various categories of Flats of Project Housing Scheme of Sec – 63, Chandigarh
1738	Testing	Sub Divisional Engineer, HUDA Sub Div.-III, Panchkula.	Civil	Prof. N.P. Devgan	Testing of Cubes of M - 20
1739	Const.	Ram Kumar Goyal, Narwana	Civil	Prof. P. K. Gupta	Proof Checking R.O.B. at Chawa Pail
1740	Const.	Chief Engg. PSEB, Patiala	Admin.	Prof. Manoj Datta	Checking of Design & Drawings for 1 <sup>st</sup> raising of ash dykes stage-II an checking the stability of Northern Ash Dyke of stage-II and Micro Hydrel Channel at GGSSTP Ropar
1741	Testing	Chief Engg. Haryana PWD B&R Deptt.	App. Sci	Prof. Prem	Testing Samples of Cement - Sand Motors, Cement Concrete and

		Chandigarh.		Lata	Water
1742	Testing	Chief Vigilance Officer, Deptt. of Local Bodies Govt. of Punjab, Chandigarh	Civil	Prof. Umesh Sharma	Collecting and Testing of samples of development works at Municipal Corporation Jalandhar
1743	Const.	Divisional Engg. GMADA, Mohali	Civil	Prof. Umesh Sharma	Technical Advice for showing signs of distress and cracks on Sector dividing roads of Sector 53/54, 59/60 upto end of Sec 71/72, Mohali
1744	Const.	Sub Divisional Engineer, HUDA Sub Div.-III, Panchkula Haryana	Civil	Prof. Umesh Sharma	Analysis of Aggregate Grading
1745	Testing	SDO-II, Haryana State Agriculture Marketing Board, Panchkula	Civil	Prof. Roshan Lal	Testing of Cement Concrete Cubes for Compressive strength and Chemical analysis of Cement used in PPC
1746	Testing	SDO-II, Haryana State Agriculture Marketing Board, Panchkula	App. Sci	Prof. H. Kaur	Testing of Cement Concrete Cubes for Compressive strength and Chemical analysis of Cement used in PPC
1747	Testing	SDO-II, Haryana State Agriculture Marketing Board, Panchkula	Civil	Prof. Umesh Sharma	Testing of Samples for work Dev. Of NGM Raipur Rani (Premix carpet for testing bitumen contents)
1748	Const.	SDO Jagadhari Water Services, Sub. Div. Jagadhar, Haryana	Civil	Prof. N.P. Devgan	Vetting of Design/Drawings of V.R. Bridges at Tapu Majri & Mashara Nallah.
1749	Const.	M/s Satnam Namita & Asso. Sco- 190-92, Sec 8, Chandigarh	Civil	Prof. N.P. Devgan	Vetting of Structural Design for Building of proposed Judges conference halls and extension of library.
1750	Const.	M/s Vastukrits Architectures Management, B-4/25, 2 <sup>nd</sup> Fl, Safdarjung Enclave, New Delhi	Civil	Prof. N.P. Devgan	Peer Review of Structural Design of HICOP project at Sec-74, Gurgoan.
1751	Const.	M/s Vastukrits Architectures Management, B-4/25, 2 <sup>nd</sup> Fl, Safdarjung Enclave, New Delhi	Civil	Prof. Roshan Lal	Proof Checking of Structural Design, (Badminton hall at Ambala)
1752	Const.	M/s Vastukrits Architectures Management, B-4/25, 2 <sup>nd</sup> Fl, Safdarjung Enclave, New Delhi	Civil	Prof. Roshan Lal	Proof Checking of Structural Design, (Athletic Pavilion at Ambala)
1753	Const.	M/s Vastukrits Architectures Management, B-4/25, 2 <sup>nd</sup> Fl, Safdarjung Enclave, New Delhi	Civil	Prof. Roshan Lal	Proof Checking of Structural Design, (Polytechnic at Ambala & Kurukshetra)
1754	Const.	Gen. Manager, Punjab Mandi Board, Hosiharpur, Punjab	Civil	Prof. Sarita Singla	Proof Checking of Structural Drawings of Pit Type 16mt X 3mt Weigh Bridge (80MT)
1755	Const.	E&EC Deptt.	E&EC	Prof. A.K. Singh	National Conference on Wireless & Optical Communication WOC-2008
1756	Const.	Executive Engineer, P.H Div. No. 8 Chandigarh	Civil	Prof. Sarita Singla	Checking of Structural Drawings for construction of 2 MGD Under ground Reservoir, Suction Pump, Pump Chamber, Boundary Wall with gurd room etc in institution area Sarangpur, Chandigarh
1757	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Design/Drawings for Construction of Lawyers chambers in Sec-43, Chandigarh.
1758	Const.	Sub Divisional Engineer, P.H Sub Div no. 4 Chandigarh	Civil	Prof. Sarita Singla	Design Mix M-25 & M-35 for provision Of Sever Lines for 1024 small flats, in Sec 49, Chd.
1759	Const.	Executive Engineer, Rai Water Service Division, Sonipat, Haryana	Civil	Prof. Roshan Lal	Checking of Design/Drawings for Construction of 2.46 M.Span (35 skew) 60M. Wide bridge at RD 81000 in Rajiv Gandhi Education City Sonapat.

1760	Testing	City Magistrate, Panchkula Haryana	Civil	Prof. Umesh Sharma	Checking Ratio of Material
1761	Const.	Sr. Hydrogeologist, Punjab Water Recourses Management Development Corporation, SCO-28-29, Sec 26, Chandigarh	Metta.	Prof. J.D Sharma	Analysis and opinion regarding composition of material of Wire Winch Unit of Borehole TV Camera System.
1762	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. Roshan Lal	Vetting of Structural Design & Calculations for construction of 16 Nos Court Room in Punjab & Haryana High Court Building
1763	Const.	Gen. Manager, Rites Ltd, No-1, Sec-29, Gurgaon.	Admin.	Prof. Manoj Datta	Checking of Design, Drawings, construction methodology and specifications for Slope stability measures in cuttings between Km 149/000 to Km 151/000 for Laole-Quazigund USBRL project
1764	Testing	58 Engg. Regiment Pin 914058 C/o 56 APO	Civil	Prof. S.K. Singh	Testing of Core of Soil Samples
1765	Testing	58 Engg. Regiment Pin 914058 C/o 56 APO	Civil	Prof. S.K. Singh	Testing of Tiles to be of M-35 Grade or Not
1766	Testing	Executive Engineer, HUDA Vigilance Cell, Sec-6, Panchkula, Haryana	Civil	Prof. Roshan Lal	Testing of Bricks sample for Bearing Capacity
1767	Testing	Executive Engineer, HUDA Vigilance Cell, Sec-6, Panchkula, Haryana	Civil	Prof. Roshan Lal	Testing of Bricks sample for Bearing Capacity
1768	Const.	National Rural Road Development Agency New Delhi	Civil	HoD Civil	Scrutiny of Project Proposals under PMGSY ( Haryana)
1769	Const.	National Rural Road Development Agency New Delhi	Civil	HoD Civil	Scrutiny of Project Proposals under PMGSY ( Punjab)
1770	Const.	UPL Environmental Engineers Ltd, Vadodara, Gujrat	Dir. Office	Prof. Manoj Datta	Approval of Design of Landfill for MSW (inert) disposal at Vellalore site in Coimbatore City
1771	Const.	M/s Jindal's Consortium, SCF-9, Vikas Vihar, Ambala City, Haryana	Civil	Prof. Roshan Lal	Proof Checking of Structural Design & Drawings of Bridge
1772	Const.	Sub Divisional Engineer, Sub. Div. PWD (B&R) Br., Meham, Haryana	Civil	Prof. P. K. Gupta	Checking of Design for construction of 3 box cell bridge on GLMB road crossing Bhiwani Sub branch
1773	Const.	M/s DMR Builders Pvt Limited, SCF-126, Sukhraj Cinema, Goniana Road , Bathinda	Civil	Prof. P. K. Gupta	Checking of Design for Construction of SBS college and construction of 10+1,10+2 School at Ferozepur.
1774	Const.	M/s Sukhija Real Estates Pvt. Ltd., SCO 58-61, Sec- 8, Chandigarh	Civil	Prof. Roshan Lal	Proof Checking of Structural Design of retrofitting of the building
1775	Const.	Executive Engineer, Haryana State Agriculture Marketing Board, Panchkula	Civil	Prof. N.P. Devgan	Checking Design Calculations & Drawings for construction of OHSR 150000 liter Capacity in NGM/NVM at Sec-20, Panchkula
1776	Const.	M/s Taneja Developers & Infra. SCO-1098-99, Sec-22B, Chandigarh	Civil	Prof. N.P. Devgan	Checking of Structural Design for UGSR of 5 lakhs gallon at TDI City-1, Mohali
1777	Const.	Executive Engineer, C.P Division No-6, Chandigarh	Civil	Prof. N.P. Devgan	Concrete Design Mix ( M-30 & M-40) for Library Building in High Court premises.
1778	Const.	Edifice Inc., Khosla Timbers, Timber market #-5, Sec-26 Chandigarh	Civil	Prof. Sarita Singla	Vetting of Structural Design & Drawings of DRGS Complex for 48 Sqn at Airforce Station Chandigarh



1779	Const.	M/s Jindal's Consortium, SCF-9, Vikas Vihar, Ambala City, HR	Civil	Prof. N.P. Devgan	Proof Checking of Structural Design & Drawings for Construction of Bridge
1780	Testing	C.O, 507 SS & TC (GREF) Pin -930507, C/O 56 APO	Civil	Prof. Sarita Singla	Testing of Compressive Strength of 43 Grade Cement
1781	Testing	M/s Balaji Engg. Co., H.no-287, Milk Colony, Dhanas, Chandigarh	Civil	Prof. N.P. Devgan	Testing of Compressive Strength of Cubes
1782	Const.	Executive Engineer, Central Works Division, PWD B&R Br, Roopnagar	Civil	Prof. Umesh Sharma	Renewal Coat on Kharar Ludhiana Road (Job Mix formula for SDBC 25mm thick with betumenous binder CRMB-60)
1783	Testing	S.K Bose, AE (Civ), AGE B/R Subathu	App. Sci	Prof. V. Singh	Testing of Mixed Cement Sand mortar for Chemical analysis of ratio cement sand used in the mortar for Kendriya Vidayala at Subathu
1784	Testing	Ext. Engg., HUDA, Vigilance Cell, HUDA Office Building, Sec-6, Panchkula, Haryana	App. Sci	Prof. V. Singh	Testing of Concrete panel for analysis of Cement Sand and Stone aggregate.
1785	Const.	Executive Engineer, Project P.H. Divn. No. 8, Chandigarh.	Civil	Prof. Siby John	Consultancy for Post Audit works
1786	Const.	Sub Divisional Engineer, Sub. Div. No. 12, Chandigarh	Civil	Prof. Umesh Sharma	Extraction of cores from PCC kerbs/channels and determine its compressive strength and thickness for construction of roads in Institutional Area of Sarangpure, Chandigarh
1787	Const.	Project Director , National Highways Authority of India, PIU, Jalandhar (PB)	Civil	Prof. P. K. Gupta	Designing of suitable Job Mix for laying 25 mm thick SDBC on Bhogpur-Mukerian section of NH-1A .
1788	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design/Drawings for 5 No.s Roof Top sites in Haryana
1789	Const.	Assistant General Manager, The Tribune Trust, Sector-29-C, Chandigarh.	Director Office	Prof. Manoj Datta	Consultancy service for the Tribune Model School building for Structural Safety & Suggesting remedial measures.
1790	Testing	Sub Divisional Engineer, M.C.P.H Sub. Div No.18, Chandigarh	Civil	Prof. N.P. Devgan	Testing of Pre cast R.C.C Samples with frame
1791	Const.	M/s Ankush Engineers & Contractors (PVT.) Ltd., # - 781, Sector-16, Panchkula.	Civil	Prof. N.P. Devgan	Proof checking of the Design of Super Structure for ROB with RCC T. Beam/Girders over Pile Founn. Jalandhar-Amritsar section for Northern Railways
1792	Testing	State Consumer Disputes Redresses Commission, Chandigarh	Work Shop	Prof. Rajesh Kumar	Inspection of Beds
1793	Const.	Sub Divisional Officer, Project Sub. Div. No.-1, Panchkula	Civil	Prof. R.R. Singh	Tests of construction materials.( 20mm and 10mm aggregate and Coarse Sand : Gradation, Impact, Abrasion, Water Absorption, Specific Gravity, Flakiness Index, Bulk Density etc.)
1794	Const.	M/s Pawan Singh Dogra, VPO – Jijwin, Tehsil-Bhoranj, Dist-Hamirpur (HP)	Civil	Prof. Roshan Lal	Checking of Hydraulic & Structural Design in respect of 3.82 MLD. WTP at augmentation of New Bilaspur Town.
1795	Const.	Executive Engineer- D, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking Bitumen Content on Rani Jansi Road Ludhiana
1796	Const.	Executive Engineer- D, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking Bitumen Content/Gradation on main Hambra Road Ludhiana
1797	Const.	Executive Engineer- D, Municipal Corporation,	Civil	Prof. Umesh	Checking Bitumen Content on Main Hambra Road from seffion

		Ludhiana		Sharma	chowk to M.C. limit Ludhiana
1798	Const.	Executive Engineer- Zone A, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking Bitumen Content/Gradation for the road Namdhari Smarak issa nagari pulli to Chadda Building material store, Ludhiana
1799	Const.	M/s Rajan Builders, #- 76, Partap Nagar, Patiala, Punjab	Civil	Prof. N.P. Devgan	Vetting of C/o 2 Lacs Ltr Cap. RCC Overhead Tank at CRPF Campus, Hallo Majra
1800	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design/Drawings for 2 Nos Roof Top Sites in Haryana.
1801	Const.	Sr. Manager Engg (C), SG. Chandigarh Division, Civil Air Terminal, Chandigarh	Civil	Prof. S.K. Singh	Consultancy for Soil Investigation and Structural Design for Boundary wall of New International Civil Air Terminal Complex
1802	Const.	Chief Vigilance Officer, Deptt. of Local Govt., Punjab, SCO 131-32, Sec-17, Chandigarh	Civil	Prof. Umesh Sharma	Checking of Layer of earth at MC Sirhind for Improvement Trust Patiala.
1803	Const.	Executive Engineer (D) B&R, Municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of Sample/Material laying DBM/SDBC on Hambran road from Session Chowk up to M.C Limit. Ludhiana
1804	Testing	Executive Engineer, HUDA Vigilance Cell, Panchkula.	App. Sci.	Dr. Harminder Kaur	Chemical Analysis of Cement & Concrete
1805	Const.	Sub Divisional Engineer, Provl. Sub Division No.II, PWD B&R Br., Hisar.	Civil	Dr. P.K. Gupta	Job Mix formula Design for four laning of NH-10 & Strengthening of NH-65
1806	Const.	M/s Conculing Engineers Associates, SCO-51 2 <sup>nd</sup> floor, Swastik Vihar, Sec-5, Panchkula	Civil	Dr. P.K. Gupta	Proof Checking of Bridge on Deodhar Nainawali Road and Chandi Mandir Jallah road in Haryana.
1807	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, Sector-6, Panchkula.	App. Sci.	Dr. Harminder Kaur	Chemical analysis of Cement & Concrete Sample
1808	Testing	Chief Vigilance Officer, Deptt. of Local Govt., Punjab, SCO 131-32, Sec-17, Chandigarh	Civil	Prof. Umesh Sharma	Checking of depth & quality/quantity of earth work executed near Parsu Ram Park, near railway over bridge, Sirhind, Punjab.
1809	Testing	Chief Vigilance Officer, Deptt. of Local Govt., Punjab, SCO 131-32, Sec-17, Chandigarh	Civil	Prof. Umesh Sharma	Testing samples of Bricks for Compressive Strength, PC & BM sample for Bitumen Content & CC flooring sample for Cement Concrete Contents for MC Sangrur.
1810	Const.	Executive Engineer, Provl. Division, PWD B&R Br., Faridkot	Civil	Prof. Roshan Lal	Checking of Structural Design/Drawings for Central Watch Tower at Modern Jail Faridkot.
1811	Const.	Executive Engineer- D, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking of Bitumen Contents on Dugri road from Atam Park to Sidhwan Canal Ludhiana
1812	Const.	Executive Engineer- D, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking of Bitumen Contents on roads of Feroze Gandhi Market, Ludhiana.
1813	Const.	Executive Engineer- D, Municipal Corporation, Ludhiana	Civil	Prof. Umesh Sharma	Checking of Bitumen Content / Gradation for Hamrha Road by laying DBM & SDBC from Session Chock to MC Limit.
1814	Const.	Executive Engineer, Provl. Division, PWD B&R Br., Faridkot	Civil	Prof. Roshan Lal	Proof Checking of Design of R.C.C wall & other Building of Modern Jail at Faridkot.
1815	Const.	M/s Hydrotech Paryavaran (India) Pvt. Ltd. F-31, Indl. Area, Phase-VIII, Mohali	Civil	Prof. Sarita Singla	Checking of Hydraulic & Structural Design in respect of 5.0 MLD Plant at Charkhi Dadri.
1816	Const.	Sub Divisional Engineer W/S Sub Division	Civil	Prof. R.R.	Post audit of const. of road and conversion of surface drain into

		No.2, Chandigarh.		Singh	under ground system by laying RCC pipes in all streets of Khuda Alisher, Chandigarh
1817	Testing	Executive Engineer- D, B&R, municipal Corporation, Ludhiana.	Civil	Prof. Umesh Sharma	Checking of bitumen contents for strengthening of Convent school road from Ferozepur road to Pakhowal road, Sarabha Nagar.
1818	Const.	Sub Divisional Engineer, Water Supply Sub Division No 1, Chandigarh.	Civil	Prof. Sarita Singla	Mix Design M – 25 for construction of 2 MGD capacity UGR, suction pump chamber, boundary wall and guard room in institutional Area Sarangpur Chandigarh.
1819	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, Sector-6, Panchkula.	Civil	Prof. Umesh Sharma	Testing of Samples for aggregate grading.
1820	Const.	Executive Engineer, (Vigilance) HUDA (HQ) Panchkula	Civil	Prof. Tripta Goyal	Testing of Samples for Bitumen Contents
1821	Const.	Luminous Power Technologies P. Ltd. Vill – Ramnagar, Teh. Amb, Distt. Una, H.P	Metta.	Prof. J.D Sharma	Correlation of corrosive properties 2 microstructure
1822	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, Sector-6, Panchkula.	Civil	Dr. P.K. Gupta	Testing of Samples for aggregate grading.
1823	Const.	Executive Engineer, Project P.H. Divn. No. 8, Chandigarh.	Civil	Prof. Siby John	Consultancy for construction of S.T Plant of 5 MLD at Industrial Area, Phase-III, Raipur Kalan, Chandigarh.
1824	Const.	M/s Indian Geotechnical Society (IGS) Chandigarh	Dir. Office	Dr. S.K. Singh	National Seminar on Geotechnical Infrastructure Development (GID – 2008)
1825	Testing	M/s Raj Precasters, Village – Rajipur, Surajpur Distt. Panchkula, Haryana	Civil	Prof. Roshan Lal	Testing of Pavers for Size and Compressive Strength
1826	Testing	Sub Divisional Engineer, Road Sub Division No. 2, Chandigarh.	Civil	Prof. Umesh Sharma	Testing of Density, Bitumen Contents & Thickness of BM & DBM for construction of additional carriage way between Sec- 51 & 52 Chd.
1827	Const.	M/s Holtec Consulting Private Limited, A Block, Sushant Lok, Gurgaon – 122 001, Haryana.	Civil	Prof. N.P. Devgan	Proof Checking of ROB at IOC Mathura
1828	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	App. Sci.	Prof. Vasundhara Singh	Chemical Analysis of Cement Concrete Samples
1829	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	App. Sci.	Prof. Vasundhara Singh	Chemical Analysis of Cement Mortar & Cement Concrete Samples
1830	Testing	Sub Divisional Engineer, Sectt. Sub Div, Sector-9, Chandigarh.	Civil	Prof. Sarita Singla	Testing of Kota Stone Sample
1831	Testing	M/s Nagi & Associates, 1085, Sector – 71, S A S Nagar, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design & Drawings of two storied Building of Govt. Polytechnic, G.T. B. Nagar Distt. Moga, Punjab.
1832	Const.	Sub Divisional Engineer, Road Sub Division No. 10, MC Chandigarh.	Civil	Prof. R.R. Singh	Checking of Bituminous Contents for Strengthening of V-4 road Sector – 49, Chandigarh
1833	Const.	Assistant Controller (F&A), Estate Branch, Municipal Corporation, Chandigarh	Civil	Prof. N.P. Devgan	Assessment of actual period of construction of Booth No. 112, Motor Market & Commercial Complex, Mani majra, Chandigarh.

1834	Const.	M/s Sheltera Consultants, 74, First Floor, South Patel Nager Market, New Delhi	Civil	Prof. R.R. Singh	Proof Checking of the Design of foundation of Tower for Roof Top and Ground Base site.
1835	Const.	M/s Balaji Construction Company, Village – Daon, Mohali, Punjab	Civil	Prof. Roshan Lal	Structural Design for the construction of Veterinary Hospital at Kharar, S A S Nagar, Mohali, Punjab.
1836	Testing	Sub Divisional Officer (PH), H.S.A.M, Board, Panchkula	Civil	Prof. N.P. Devgan	Testing of cement concrete cubes for construction of RCC OHSR in Ambala City - Haryana
1837	Const.	M/s Sheltera Consultants, 74, First Floor, South Patel Nager Market, New Delhi	Civil	Prof. S.K Verma	Proof Checking/Vetting of 30 No.s RTT/GBT structural/Foundation design
1838	Testing	Sub Divisional Engineer, Sub. Div. No. 6, Chandigarh	Civil	Prof. Umesh Sharma	Testing of material/samples of the work-providing and laying 25mm thick SDBC on V-6 road in Sec-32-A Chandigarh
1839	Testing	Sub Divisional Engineer, Sub. Div. No. 6, Chandigarh	Civil	Prof. Umesh Sharma	Testing of material/samples of the work- strengthening and carpeting of roads in Ind. Area Ph-II, Chandigarh
1840	Testing	Executive Engineer Zone A, MC, Chandigarh	Civil	Prof. Umesh Sharma	Checking of bitumen contents
1841	Const.	Er. Pawan Singh Dogra, VPO Jijwin, Teh. Bhoranj, Distt – Hamirpur (HP)	Civil	Prof. S.K Sharma	Vetting of design & drawings of sewage treatment plant of 1.6 MLD for Nadaun Town. HP
1842	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Counter Checking of Haryana tourist complex building at Rohtak
1843	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Counter Checking of sewer/storm water drain crossing railway area
1844	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design/Drawings for 11 Nos cell sites in Haryana
1845	Const.	Joint Director, Govt. Institute for Mentally retarded children Sec- 32, Chandigarh	Mech	Prof. Sandeep Salodkar	Remuneration of lecturers
1846	Const.	M/s Sheltera Consultants, 74, First Floor, South Patel Nager Market, New Delhi	Civil	Prof. S.K Verma	Proof Checking/Vetting of 6 No. RTT & GBT Structural/foundation Design
1847	Const.	Philips India Limited	Mech.	Prof. S.K. Mangal	Project ( wood feeding mechanism)
1848	Const.	Philips India Limited	E&EC	Prof. Neelam R. Parkash	Night watch miniaturization
1849	Const.	Philips India Limited	Metta.	Prof J.D. Sharma	Gamma Project
1850	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Counter Checking of Building Structure of Community Center and School Building at Jheorheri, Kharar
1851	Const.	M/s Continental Foundation. 1059, Sector-43B Chandigarh	Civil	Prof. Roshan Lal	Structural Design of Engineering College & 10+2 Science school at Khooni Majra, Teh. Kharar, Distt Mohali
1852	Const.	M/s Bharuch Enviro Infrastructure Limited, Gujarat	Dir. Office	Prof. Manoj Datta	Design of cell 4 No. of new landfill at BEIL, Ankleshwar

1853	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Counter checking of Foot Bridge at Command Hospital, Panchkula
1854	Const.	M/s Syal & Associates, F-91, Ph.7, Mohali	Civil	Prof. N.P. Devgan	Counter checking of building structure of Govt. Polytechnic, Meham, Haryana
1855	Testing	Sub Divisional Engineer, M.C.P.H, Sub Div. No. 18, Chandigarh	Civil	Prof. N.P. Devgan	Testing of samples – RCC Vertical Grating for Road Gullies
1856	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	App. Sci.	Prof. Harminder Kaur	Testing of samples for Lean Concrete of Cement Sand & Coarse Aggregate
1857	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	App. Sci.	Prof. Harminder Kaur	Testing of samples for fine aggregate sand for sieve analysis and Cement Concrete for analysis of Cement Contents.
1858	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	App. Sci.	Prof. Harminder Kaur	Testing of samples of Cement Concrete, Cement Sand Plaster & Cement Sand Mortar for Cement Contents.
1859	Const.	M/s Syal & Associates, F-91, Ph. 7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design / Drawings for 2 Nos GBT sites in Haryana
1860	Const.	M/s Cengrs Geotechnica Pvt. Ltd. A-100, Sector – 63, Noida- 201309, U.P	App. Sci.	Prof. L.N. Sharma	Petrographical Analysis of rock
1861	Const.	M/s Continental Foundation, # 1059, Sector-43-B , Chandigarh.	Civil	Prof. Roshan Lal	Vetting of Structural Design for the Work – Polytechnic, Kharar, Mohali
1862	Const.	Sub Divisional Engineer, Provl. Sub Division PWD B&R, Mohindergarh	Civil	Prof. P. K. Gupta	Job Mix formula for the work of construction of Wdg & Stg. Mohindergarh-Satnali-Loharu Road.
1863	Const.	Executive Engineer, HUDA, Sub Division No. III, Panchkula	Civil	Prof. Umesh Sharma	Third party inspection of road work in Mansa Devi Complex, Panchkula
1864	Const.	Regional Institute of Cooperative Management Sector- 32, Chandigarh.	Metta	Prof. P. Thareja	Quality Management ISO – 9001-2008
1865	Const.	M/s Creative Consultant, 2402, Top Floor, SGHRS Complex, Sec- 67, Mohali	Civil	Prof. Roshan Lal	Proof Checking of Structural Design of Judicial Complex, Shimla – Remaining Super Structure
1866	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	Civil	Prof. Umesh Sharma	Sieve Analysis of road material WMM & GSB
1867	Const.	M/s Ravinder Khosla Associates, H.O – 92, Civil Lines, Ludhiana, Punjab	Civil	Prof. N.P. Devgan	Vetting of Structural Drawings against Modern Cattle Fair Ground at village Killanwali, Distt- Muktsar, Punjab
1868	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	Civil	Prof. Tripta Goyal	Testing of samples for Bitumen Contents.
1869	Cancelled				
1870	Const.	M/s Tech - Pacific, Structural Consultants, SCO- 80-82, Sec – 34-A, Chandigarh	Civil	Prof. Roshan Lal	Proof Checking of Structural Design and Drawings of ROB at Bias span 19.6 mts, job No. 44A
1871	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula.	Civil	Prof. P. K. Gupta	Evaluation/Testing of Bitumen Contents

1872	Const.	M/s Raglan Infrastructure Limited, Circular Arcade, Near Railway Crossing, Zriakpur, Pb.	Civil	Prof. Roshan Lal	Proof Checking of Structural Design and Drawings of Gulmohar City Extension, Derabassi, Punjab
1873	Const.	Sub Divisional Engineer, Sub Division Engg. (C-II) Ludhiana.	Civil	Prof. Umesh Sharma	Testing of Cement for Compressive Strength
1874	Const.	State Consumer Disputes Redressal Commission, Chandigarh	Mech.	Prof. Sushant Samir	Examination of Innova Car.
1875	Const.	M/s Sheltera Consultants, 74, First Floor, South Patel Nager Market, New Delhi	Civil	Prof. S.K Verma	Proof checking/ vetting of tower foundation design for 3 sites
1876	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	App. Sci.	Dr. V. Singh	Testing of samples of Cement Sand Plaster and Cement Concrete
1877	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	App. Sci.	Dr. V. Singh	Testing of samples of Cement Sand Mortar of Brick work
1878	Const.	National Rural Roads Development Agency, 5 <sup>th</sup> floor, 15-NBCC Tower, Bhikaji Cama Place, New Delhi	Civi	Prof. Siby John	Scrutiny of Project Proposals for the State of Haryana under PMGSY.
1879	Const.	Asstt. General Manager, The Tribune Trust, Sector- 29-C, Chandigarh	Dir. Office	Prof. Manoj Datta	Consultancy services for Tribune Building for Structural Safety & Suggesting Remedial measures (Phase - II)
1880	Const.	Sub. Divisional Engineer, Const. Sub Division No. 12 Chandigarh	Civil	Prof. Umesh Sharma	Design of overlay for 2 lane carriageway from High level Bridge Dhanas to village Dhanas
1881	Const.	Sub. Divisional Engineer, Const. Sub Division No. 12 Chandigarh	Civil	Prof. Umesh Sharma	Design of three lane dual carriage way from Khuda Lahora bridge to U.T Boundary
1882	Const.	M/s Chopra Consulting Engineers, H.No 1076, G.F Sector 21-B, Chandigarh	Civil	Prof. Roshan Lal	Checking of structural Design & Drawings for inmates and W/Shop building at Kapurthala Jail, Kapurthala.
1883	Const.	M/s Renu Khanna & Associates, 138, Sector-10, Panchkula	Civil	Prof. N.P. Devgan	Vetting of Structural Drawings of Northern Indla Institute of Fashion Technology at Jalandhar
1884	Const.	M/s Mendiratta & Associates, SCO-305-06, Sector – 35-B, Chandigarh	Civil	Prof. S.K. Verma	Vetting of Drawings for Community Center Building at Talwara.
1885	Const.	M/s Tech-Pecific, structural Consultant, SCO-81-82, Sector 34-A, Chandigarh	Civil	Prof. Roshan Lal	Proof Checking of Structural Design and Drawings of ROB at Bias span 13.6 mts.
1886	Const.	Gurdwara Sri Guru Teg Bhadur Sahib, Sector – 34, Chandigarh.	Civil	Prof. N.P. Devgan	Verification of Structural Design of the Proposed expansion Building
1887	Const.	M/s Sheltera Consultants, 74, First Floor, South Patel Nager Market, New Delhi	Civil	Prof. Roshan Lal	Vetting of Structural Drawings for various towers and its foundations
1888	Const.	M/s National Engg. Projects Consultant SCO-134, Sector – 28D, Chandigarh	Civil	Prof. Roshan Lal	Proof checking of Structural Design and drawings
1889	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	App. Sci.	Prof. H. Kaur	Testing of samples (Chemical Analysis of Cement Mortar for Brick work and Cement Concrete for columns)
1890	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	Civil	Prof. S.K. Singh	Testing of Samples – Bituminous Work

1891	Const.	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	Civil	Prof. P. K. Gupta	Evaluation of Bituminous Contents
1892	Const.	Additional Principal Chief Conservator of Forests (Dev) Punjab, Chairman Forest Complex Committee, Forest Complex, Sec-68, Mohali.	Civil	Prof. N.P. Devgan	Quality Control of structure component of building- Fourth storey to completion of building and checking structural design of service block and tower Glazing.
1893	Const.	M/s Syal & Associates, F-91, Ph. 7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Building Structure of Judicial Block at Mewat
1894	Const.	M/s Syal & Associates, F-91, Ph. 7, Mohali	Civil	Prof. N.P. Devgan	Counter checking of Distt Jail at Rohtak
1895	Const.	M/s Syal & Associates, F-91, Ph. 7, Mohali	Civil	Prof. N.P. Devgan	Counter checking of new ITI Building (Workshop block) at Madian
1896	Testing	Sub. Divisional Engineer, Const. Sub Division No. 6 Chandigarh	Civil	Prof. N.P. Devgan	Testing of Interlocking Pavers
1897	Testing	Sub. Divisional Engineer, M.C.P.H Sub Div. No. 18 Chandigarh	Civil	Prof. N.P. Devgan	Testing of RCC fiber pre-cast road gully
1898	Const.	M/s Syal & Associates, F-91, Ph. 7, Mohali	Civil	Prof. N.P. Devgan	Vetting of Structural Design and drawings of 5 no sites in Haryana
1899	Const.	M/s Artisans, # 399, Sukhna Enclave, Behind Rock Garden, Kaimbwala, Chandigarh	Civil	Prof. Roshan Lal	Structure stability certificate for project of Commercial Complex for M/s Amrik Singh at Chet Singh Nagar, Ludhiana
1900	Const.	Sub. Divisional Engineer, M.C.P.H Sub Div. No. 18 Chandigarh	Civil	Prof. N.P. Devgan	Testing of Cement Concrete Cubes
1901	Testing	Sub. Divisional Engineer, M.C.P.H Sub Div. No. 18 Chandigarh	App. Sci.	Prof. H. Kaur	Chemical analysis of Mortar Samples
1902	Const.	M/s Avinash House Link Road, Nr. Fountain Chowk, Civil Lines, Ludhiana	Civil	Prof. Roshan Lal	Checking of Structural Design/Drawings for the construction of third floor of S.I.R.D complex and Guest House, Sec- 62, Mohali
1903	Const.	M/s Hindustan Zinc Limited, Jawar Mines, Udaipur	Dir. Office	Prof. Manoj Datta	Technical consultancy for raising of height of tailing Baroi tailing dam
1904	Const.	Sub. Divisional Engineer, Road Sub Div. No. 1 (MC) Chandigarh	Civil	Prof. Umesh Sharma	PL 35mm thick SDBC for parking near Kiran Cinema and H.NO 1317-1323 and 1201-1276, Sector – 22B, Chandigarh
1905	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	Civil	Prof. Sarita Singla	Testing of Bricks Sample
1906	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	Civil	Prof. Sarita Singla	Testing of Bricks Sample
1907	Testing	Executive Engineer, HUDA Vigilance Cell, C-3, HUDA office Complex, Sector-6, Panchkula	Civil	Prof. N.P. Devgan	Testing of Fine Sand
1908	Const.	Luminous Power Technologies Limited, Una, Himachal Pardesh	Metta.	Prof. J.D Sharma	Consultancy for Metallurgical Analysis of the Casted Spine
1909	Testing	Assistant Engineer, Haryana Housing Board, Const. Sub Division, Panchkula	Civil	Prof. S.K Verma	Testing of Bricks Sample (GH-93) for the const. of Group housing Flats, Panchkula

**EXTENSION LECTURES DELIVERED**

1. Sucheta Expert lecture by Prof. L Danzer, Professor Emeritus, University of Dortmund, Germany on the topic “Quasi Periodic Tilings -Substitution versus Inflation” organized at the Department of Applied Sciences of the Punjab Engineering College (Deemed University), Chandigarh on March 13, 2009 from 3:30 p.m. to 4:30 p.m.
2. Dr Neena Gupta Delivered an expert talk on WiMAX- The Emerging Technology for Broadband Wireless Communication in two-day symposium on 3G Networking Optimisation and Emerging Communication Technologies on August 24-25, 2007 at CSIO, Chandigarh organized by IETE, Chandigarh Centre
3. Sh Sukhwinder Singh “Introduction to Embedded System” UIET, Sector 25, Chandigarh on 28<sup>th</sup> May 2008
4. Ms Neelu Jain Expert talk on Microcontroller programming in the summer training program on digital and embedded system design in UIET, Sector-25 on 29<sup>th</sup> May 2008
5. Dr Sucheta ‘Some Random Mathematical Thoughts’ at a Refresher Course in Mathematics organized at Govt. College, Bhiwani on 21.05.2008
6. Dr Vasundhara Singh “Task Specific ionic liquids as recyclable supports for catalysis and combinatorial synthesis” at the GREEN CHEMISTRY WORKSHOP titled “Green Chemistry: The Sustainable Synthesis of Fine Chemicals and Pharmaceuticals” on September 3-4, 2007 under the auspices of Department of Science and Technology, Ministry of Science and Technology, New Delhi at National Institute of Pharmaceutical Sciences (NIPER), Mohali
7. Sanjay Batish Delivered lecture on “Introduction to Computer Network” at Panjab University on 6.9.2007.
8. Sanjay Batish Delivered two lectures on “Internet services and its uses” at Panjab University on 6.9.2007.
9. Sanjay Batish Delivered two lectures on “Wireless Network and its uses” at Panjab University on 13.9.2007.
10. Sanjay Batish Delivered two lectures on “Setting up Network in one domain” at Panjab University on 13.9.2007.
11. Dr. R.K. Khitoliya Environmental Impact Assessment and Analysis in Short term Course on Crisis and Disaster Management on 22-05-2008 at NITTTR, Chandigarh.



12. Dr. Umesh Sharma                      Invited for Expert Lecture on Construction Projects to Field Engineers of State Bank Of India at Panchkula, June 2007
13. P Thareja                                  Quality and Environmental Management System Imperatives in Technical Education, NITTTR, Chandigarh, Aug 2007
14. P Thareja                                  “Cupola as a potent tool of Founding competitiveness: Experiences through 125 mm dia cupola” Seminar and Panel Discussion on Effective utilization of Cupola, also participated as a panelist. Institute of Indian Foundrymen, Mandi Gobindgarh, Oct 6, 2007
15. Jagtar Singh Gill                        Panelist to discuss ‘Indian Sports Performance in Beijing Olympic 2008’ on National Sports Day celebrated by the Department of Physical Education of Govt. College Sector 11, Chandigarh on 29<sup>th</sup> August, 2008
16. Sanjeev Sofat                              "Management Information System" on 17.9.2008 at Mahatma Gandhi State Institute of Public Administration, Punjab.
17. Sanjeev Sofat                              “Cyber Security” at Punjab University on 28-July 2008
18. Divya Bansal                                “Cyber Laws” during National Conference-cum-workshop on Information Security and Networks (ISAN-2009) at Chitkara Institute of Engineering & Technology, Punjab on June 19, 2009
19. Divya Bansal                                “Landscaping Chandigarh – wifi security 2009” during National Conference-cum-workshop on Information Security and Networks (ISAN-2009) at Chitkara Institute on June 20, 2009
20. Divya Bansal                                "Security issues in wireless environments" July 2009 at NITTTR, Sector 26
21. Divya Bansal                                “Network Security” at Institute of Microbial Technology, Chandigarh on 4th June 2008
22. Divya Bansal                                “wifi Security” at NITTTR, sector 26 in June 2008
23. Divya Bansal                                “Network Perimeter Security” at NITTTR, sector 26 in May 2008
24. Jyoti Kedia                                 “Behavioral Modeling”, Short term course on Digital Hardware design at UIET, Sector 25, Chandigarh on 2<sup>nd</sup> June 09.
25. Jyoti Kedia                                 “Dataflow Modeling”, Short term course on Digital Hardware design at UIET, Sector 25, Chandigarh on 3<sup>rd</sup> June 09.
26. Sucheta                                      Acted as resource person for the Faculty development Workshop from 31.01.09-01.02.09 conducted by the Mathematics Forum of Chitkara University, Solan.

27. Vasundhara Singh “ALTERNATE SOLVENT SYSTEMS FOR GREEN CHEMICAL SYNTHESIS” Plenary lecture delivered at Chandigarh Science Congress, Panjab University, Chandigarh on 27th February, 2009.
28. Vasundhara Singh “Caly and ionic liquids for environmentally benign synthesis” at the 3rd Chemical Research Society of India Mid Year meeting held at National Institute of Pharmaceutical Education and Research (NIPER), Mohali-160062 from 25th-26th July, 2008.
29. Vasundhara Singh “Green Chemical Synthesis in alternate reaction media” invited lecture at DAV College, Chandigarh on 19th August, 2008.
30. Vasundhara Singh “Green Chemical processes for environmental sustainability” lecture delivered at refresher course in Environmental Sciences at Panjab University, Chandigarh on 9th July, 2009 (Resource person).
31. P Thareja “Role of Testing instruments in Foundry”, in National Workshop on Role of Testing instruments in Foundry, Institute of Indian Foundrymen, IIF, Ludhiana, 21<sup>st</sup> March 2009.
32. P Thareja “Role of Statistical Process Control in Flight Control and Management”, HAL Training programme, Chandigarh, 16<sup>th</sup> June 09.
33. P Thareja “Quality Communication for Leadership, AICTE Short term course on Leadership and corporate communication, IIT Roorkee, 25<sup>th</sup> June 09.
34. P Thareja "Comparative Analysis of Accreditation Process of NBA and ISO 9001 for auditing technical institutions" MHRD-AICTE sponsored winter school on "Educational Auditing and Feedback System for Excellence in Technical Institutions" from January 12-16, 2009 at GNE College, Ludhiana (January 13, 09).
35. P Thareja Theme lecture of celebration: on ‘Combating Current Challenges to Foundrymen,’ National Foundry Day celebration, 23<sup>rd</sup> Aug 08, Barog,
36. P Thareja “Design Course: A tool for developing Creativity and innovation”, Short term Course on: 19<sup>th</sup> Aug 08, NITTTR, Chandigarh.
37. P Thareja AICTE sponsored Staff Development programme on LEAN Manufacturing on 11<sup>th</sup> Dec 08, BBSBEC Fatehgarh Sahib.
38. P Thareja “Lean’ing on Continual Improvement”, BBSBEC fatehgarh Sahib AICTE sponsored Staff Development programme on LEAN Manufacturing, 11<sup>th</sup> Dec, 08.
39. P Thareja Lean To Green for Competence”, BBSBEC Fatehgarh Sahib AICTE sponsored Staff Development programme on LEAN Manufacturing, ibid.
40. P Thareja Standardization Practices per ISO-9001:2000 in Bio-Technology, STP in Biotechnology Environmental Safety per ISO-14001:2004 in Bio-Technology, STP in Biotechnology, 7<sup>th</sup> Nov, 08.

- 41.P Thareja Environmental Safety per per ISO-14001:2004 in Bio-Technology, STP in Biotechnology, 7<sup>th</sup> Nov, 08.
42. P Thareja Leadership for corporate communicators in short term course on Role of Communication Skills and leadership in the Corporate World, IIT Roorkee, 29<sup>th</sup> June – 3<sup>rd</sup> July, 2009.
43. Siby John Importance of Creating Bank Building and premises energy efficient – where to start and how to make the journey rewarding with an eye on Carbon Foot Prints” Bank Managers National Seminar, SBI Learning Centre, Panchkula, February 27 2009.
44. Tripta Goyal “Pavement Maintenance” in ISTE short term training programme on ‘Recent Advancement in Pavement Design including Low Volume Roads (RAPDLVR) organized by Department of Civil Engineering, Guru Nanak Dev Engg. College, Ludhiana on 17<sup>th</sup> June 2008.
45. Umesh Sharma Design of Road Pavements at G.N.E.C.Ludhiana on 17<sup>th</sup> June, 2008
46. Parveen Kalra “Optimization – Theory and Applications” July 2008 at NITTTR, Sector 26, Chandigarh
47. R M Belokar “Enterprise Support System – a overview to manufacturing system and its management with respect to global competitiveness” AICTE sponsor and ISTE Funded Summer school on faculty awareness camp on entrepreneurship at Rayat Institute of Engineering and Information Technology, Railmajra, Roper Punjab, June 28th 2008, Engineers, Teachers of various Engineering college’s of all India

## Annexure - XXII

### **Sponsored Research Projects:**

The institute encourages its faculty to undertake research in the field of science and technology through sponsored projects. At present faculty along with research scholars and research fellows are engaged in sponsored project of 2 to 5 years duration funded by Government agencies. Some of them are Department of Science and Technology, Department of Information Technology, Indo-French Centre for the Promotion of Advanced Research, CSIR, AICTE, SASE and Chandigarh Administration. Some of the ongoing and recently completed projects are:

<b>Project No.</b>	<b>Title</b>	<b>Funding Agency</b>
1	Trends In Engg. Metrology & Statistical Process Control	AICTE
2	RPS Project	AICTE
3	Development of Industry Relevant Microcontroller/Microprocessor Virtual Laboratory	AICTE
4	Land Cover Mapping of Chandigarh	DST
5	Establishing CAD/CAM Lab.	AICTE
6	Spatio-Temporal Monitoring Of A Glacier Using Satellite Remote Sensing & Luminescence	DST
7	Identification of Electrical Energy Saving Potentials For All UT Govt. Offices Chandigarh	DST
8	Design of hybrid task specific ionic liquid –inorganic matrixes	Indo French Centre for Promotion of Advance Research
9	To synthesise sphingolipids and related compounds ( Grant-in-Aid fellowship Programme)	CSIR
10	Incentive to EFIP consider Joining	AICTE
11.	Experimental study of mechanical behaviour and durability of HPC	AICTE
12.	Studies on mechanism of attachment/detachment of contaminants in the soil system	AICTE
13.	Assesment of geochemical parameters of ground water in Chandigarh	DST
14.	NASA The great moon buggy race 2009-UFO Team I	Chandigarh Administration
15.	NASA The great moon buggy race 2009-Kalpana Team II	Chandigarh Administration
16.	Design and development of dependable secure and efficient proptocols for wireless mesh network	DIT
17	Formula SAE	Chandigarh Administration, Punjab Govt., Trident PTI

**Annexure - XXIII****In-house Research Projects**

<b>Sr.No.</b>	<b>Name of the Proposal</b>	<b>Co-ordinator's Name</b>
1	Centre for Research & Promotion of Non Conventional Energy Sources	Dr. T.K.Jindal
2	Development of low cost Automation Technologies	Dr. Parveen Kalra
3	Development of submerged arc welding fluxes	Dr. Narendra Mohan
4	Establishment of state of the art lab-Material characterization lab.	Dr. Uma Batra
5	Development of ADI and its commercialization	Sh. J.D.Sharma
6	Analysis of engineering properties of rocks to Understand tectonics having being an natural Hazards and to design better engineering structure	Dr. L.N. Sharma
7	Establishment of Computer vision Lab	Sh. Ajay Mittal
8	Centre for Excellence for wireless Network & Security	Dr. Sanjeev Sofat
9	Up gradation of Soil Mechanics lab	Dr. S.K. Singh
10	Enhancement of mechanical properties and biocompatibility of hydroxyapatite ceramic using sintering additives	Dr. Uma Batra
11	To set up semiactive vibration control facility	Dr. S.K Mangal
12	VLSI Design Lab	Ms. Jyoti Kedia
13	Geotechnical computational facility	Dr. S K Singh
14	Improving the Surface Properties of Important Die Steel Materials by Electrical Discharge Machining	Dr. Sanjeev Kumar
15	Wireless Sensor Networks Research Facility	Dr. Trilok Chand
16	Synthesis and Characterization of Nenostructured Materials for Memory Application and Catalysis	Dr. Satyendra Singh
17	Wireless Design & Planning Facility	Dr. Nagendra Sah
18	Developing Hybrid EDM Process	Dr. R.S. Walia
19	Optical Communication System Design	Dr. Neena Gupta

## 2.17 Action Plan for Academic performance of SC/ST/OBC/Academically weak Students as per Table-19

Following activities have been planned :

1. Identification of weak students at Undergraduate and Postgraduate levels.
2. Conducting communication skill and personality development programmes and workshops
3. Summer courses to the undergraduate and post graduate weak and underprivileged students of PEC University of Technology.

Activity	Projects Months															
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
<b>Action Plan for Academically weak students</b> - Summer Courses - Communication skill development Course Workshop - Finishing School : Personality Development Workshop		■				■				■						