

**Final Report on
Tracers' Study
for
Career Prospecting of IEST – Shibpur
(BESUS) Students**

Executed by

**Department of
Human Resources Management (HRM)**

**Indian Institute of
Engineering Science & Technology (IEST), Shibpur**

Supported under

Equity Action Plan (EAP) of TEQIP-II

December – 2014



Date : 26.12.2014

From :
Dr. M.K.Sanyal
Professor and Head
HRM Department,
IIEST-Shibpur

To :
Prof. Gautam Bandyopadhyay,
Coordinator TEQIP – II
IIEST-Shibpur

Sub: Tracers' Study for Career Prospecting of BESUS (IIESTS) Students ; submission of Final Report

Ref.: Your Memo No. 1/TEQIP II/EAP/2013 (Dt. – 07.08. 2013)

Sir,

With reference to the above, I am pleased to submit herewith the Final Report (Two hard copies alongwith the soft-copy in PDF format) of the above mentioned Project.

It may be pointed out that as per the sanction order issued in August 2013 for a project duration of 17 months the completion of the project was scheduled in December 2014. This has been extremely gratifying that the execution of the project and submission of Final Report thereof, within the stipulated time , has been possible only because of the all-out cooperation extended by you and your office.

As coordinator of this project, I take this opportunity to express my Sincere thanks to you, Prof. Sipra Das Bit and entire staff members of TEQIP – II.

This submission of the Final Report brings an end to this current phase of the project sanctioned by you.

I shall be obliged to receive your comments / observation on this project report.

Thanking you once again,

Yours Faithfully,
(Dr. M.K. Sanyal)

Enclo : As stated.



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Executive Summary

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The project titled "Tracers' Study for Career Prospecting of IEST-Shibpur (BESUS) Students" was initiated by HRM department of IEST – Shibpur under support from Equity Action Plan of Technical Education Quality Improvement Programme –Phase - II (TEQIP –II), with the very broad and major objective to track the career of the students to ascertain the difficulties faced by them while adjusting to professional careers. This was mainly with respect to address the gaps in required technical knowledge, skill sets including soft skills, poise and expected behavioral traits, so that a suitable action plan could be developed for the current students which could help them to be better prepared for the transition to a successful future career.

With this objective in mind, students who have passed-out from the Institute were contacted in general in the form of a response survey. This response from the alumni was not very encouraging which usually is the case in such types of response surveys. So, to start with, it was decided to tap the pass-outs (UG & PG) from the recent batch (2009 -2013). Accordingly, a suitably designed questionnaire was prepared and circulated and these were also supplemented by interviews with some of the available students of this recent batch for further clarity.

Methodology of the Study:- The research work began at the initial stage of the study itself – with the designing of the "structured questionnaire". This was framed with inputs from all the relevant stakeholders, followed by the assimilation and compilation of the feedback obtained from them. Subsequently, all the valid responses from the inputs were filtered, discarding the incoherent inputs. Such valid responses thus received were then substantiated with in-depth interaction with selected students.

It was only after the completion of this phase, based on these filtered results that the recommendations have been put forward.

The feedback received from the various categories of students (both UG as well as PG) contain a wealth of data in the form of suggestions regarding what initiatives can be taken by the Institute to help in career building, what reforms in the curriculum are required and the necessary modifications that could be made in the Teaching Learning Methods to improve the career prospects of the students. These suggestions (which are entirely from the student's viewpoint), have been refined through successive iterations and based on this gist, certain recommendations are now being put forward (within the framework of the present academic set-up). These recommendations are based on the understanding of the student's version of what steps could be taken to better prepare them for whatever career they choose to adopt in future. These are as follows:-

- 1) Concerted all-out efforts may be carried-out by the Institute to improve its brand positioning in the global academic arena which is to be reflected through better ranking of the Institute in recognized ranking forums.

- 2) The Placement Cell of the Institute needs to be made more vibrant with expanded horizon of activities including grooming of the students right from the admission stage itself upto the final year, sharing feedback of the recruiters with the different academic departments to facilitate mending of the gaps that have been reported and initiating orientation activities for the students in different career options including self-employment.

- 3) To hold Career Fair every year, this will give students an opportunity to interact with different prospective employers and to understand their requirements which will help them to prepare themselves for a career in the chosen field.
- 4) To introduce Career Counseling from the 1st year itself so that students can develop an opinion regarding the career of their choice.
- 5) Industry exposure (stream wise) could start from the 1st year itself. For example, students of Civil Engineering could be taken to construction sites, students of Mechanical and Electrical engineering could be taken to visit core industries. This will help them to formulate their own future career options.
- 6) Students may be mandatorily required to take a credit bearing project on any area which is "beyond the curriculum". This approach may force them to develop an interest and focus on emerging areas of technology as well as extra-curricular activities.
- 7) To augment the course curriculum (especially of the UG students) with sufficient assignments in the form of minor projects which the students will have to submit by way of class presentation. It is expected that such exercise will help them to improve their presentation and communication skills which will be beneficial for them to face placement interviews in future.
- 8) Such assignments could also have the scope to use application software's like on Project Management, Data Analysis through SPSS or other specialized software such as MATLAB or ANSYS.

9) Theory classes could be supplemented with hands-on demonstration, video presentations or simulations to replicate actual situations.

10) The possibility of giving students home-assignments (which could be graded), during holidays could be explored.

11) Wherever possible, theory classes could be supplemented by lectures from practicing professionals from the industry. This will expose the students regarding the latest technology adopted by the industry which can inspire them to further explore these areas.

12) To explore whether eminent faculty members from the top tier institutes of the country can be invited to share their knowledge regarding cutting-edge technology with the students through seminars, workshops or regular classes.

13) PG students wishing to take-up a teaching career in future could be offered "Teaching Assistantship" to help in their future profession.

14) To explore whether the PG students can be attached with the regular faculty to help them in lessening their teaching workload. This association with senior faculty members could also help them to learn how to author technical documents apart from enriching their domain knowledge.

15) The projects given to the students should be so designed so that it should have scope for original thinking, working in new technology areas, use of application programs and resulting in innovative solutions. There should also be sufficient variation among the projects which are given to different groups. This should be especially done for the lab assignments given to individual students.

16) The assignments given to the students could be given more weight age so that students complete them with due diligence.

17) Regarding evaluation of answer scripts, a system could be evolved whereby a few scripts selected at random (for example some scripts selected from those getting high marks, some scripts with medium marks and some with lower), may be sent to external examiners for evaluation. This will help standardize the evaluation process.

18) Program for internship of students with the industry could be made more flexible to accommodate both the academic requirement of the students as well as the demand from the industry.

19) All seminars/lectures given by distinguished external faculty members or experts from the industry may be considered as part of the curriculum and attendance in these events to be made mandatory.

20) Feasibility of student exchange programs to be explored to help students gain exposure regarding academic systems in different top ranking institutes.

21) To explore whether latest question papers of various national/international level Competitive Examinations (CAT/GATE/IES) can be solved in class. This step will help the students in better preparing for those examinations.

Limitations of the current study :

1) The current study was time-bound which restricted options in exploring relevant ideas in an exhaustive manner.

2) Reaching out and networking with a very large pool of alumni was a challenge in view of the constraints with respect to time frame for the current phase of the project.

3) Tracers' Study essentially demands continuous and regular follow-up with the identified network so as to capture the varying nature of responses from the network members at different stages of their career. This has to be continued in the subsequent phases of this programme so as to make more credible recommendations.

4) The feedback that was obtained contained a large number of responses which were very mundane and appeared to be the result of a careless thought-process and thus had to be rejected.

5) Many pertinent responses from different groups were found to be contradictory and this had to be addressed as far as possible.

6) There were many responses which had to be eliminated as they were not practically feasible thus further reducing the low level of responses.

Future scope of the study :

1) Regular networking with selected representative alumni (who can be considered as "key informants"), is being proposed as a continuation of the present study.

2) To develop a network of "key informant community" across various age groups, disciplines and careers to enable continuous feedback from these selected participants so that their "career tracking" is possible for at least five years after passing out from this Institute.

3) Their feedback after suitable amendment and modification will form the basis of future recommendations for upgrading the academic standard of the Institute.

FINAL REPORT
ON
TRACERS' STUDY
FOR
CAREER PROSPECTING
OF
IEST- SHIBPUR (BESUS) STUDENTS

INTRODUCTION

Introduction

A. Study Overview

The industrial scenario in this country is fast changing requiring technical personnel to be equipped not only with the latest technical know-how but also be good in communication, be presentable and have adequate poise and personality to seamlessly fit-in with the organizational culture. We at IEST (erstwhile BESU), which is one of the premier engineering institutes for engineering education in the country which has been catering to the industry by maintaining the heritage of quality engineering students since more than 157 years, have keenly felt the need to adapt to the changing demands of the industry by initiating necessary changes to the largely traditional structure and systems that we have inherited. It is with this purpose, that the "Tracer Study" was initiated by the HRM Department of IEST so that an in-depth assessment can be made regarding the transformation that need to be done regarding teaching methods, curriculum and other activities which will equip our students to be adaptable and more acceptable to the industry requirements.

B. The Vision

The broad objective of the proposal was to trace the career paths of students passing out of the institute in different disciplines and serving in different organizations (private or public) or educational institutions, so that the specific needs of the professional life can be assessed and the process of adaptation can be initiated right from the college days during their academic tenure. Some of the specific objectives could be enumerated as follows :

- i) To ascertain the difficulties faced by the students immediately on joining the professional life so as to formulate suitable action plan to equip the students enabling them for a smooth transition.
- ii) To ascertain the gaps in technical knowledge as well as the required skill demanded by different categories of industries so that suitable recommendation for the curriculum augmentation can be made.
- iii) Additionally, to ascertain requirements of non-curricular skills including soft skills, personality traits and behavioral skills required for adjusting to the professional world and adopting suitable action plan for the benefit of the current students.
- iv) To ascertain suitability of different categories of students for specific job profiles with a special emphasis on students from Backward Classes / Economically Weaker Section / Academically Weaker (performing below average) Sections.
- v) To ascertain scope and need for innovation in industries so as to formulate action plan for early training during studentship.

C. Preliminary Steps

The process of receiving feedback from the students who have passed out over the years was started by drafting a letter along with an appropriate format and (e)mailing it to all the students whose names appeared in the institute database. Unfortunately the response was extremely poor probably because most students had changed their existing mail-ids after passing out and had not updated the institute about it. Therefore as an alternative measure, it was decided to tap those students who had graduated very recently from the institute and obtain a feedback from them. It was felt that their feedback could be taken as a "pilot project" which could then serve as the basis for not only designing an appropriate

feedback format for the main project (i.e. feedback from the entire pass out student population), as well as to have an initial idea regarding those areas (both structural as well as systemic) where attention is required. Thus, this initial study could help the institute to formulate a “short term plan” which could be implemented soon so that the present students may benefit from the findings. This “plan” could later be dovetailed with a detailed “long term strategy” based on the findings of the larger population.

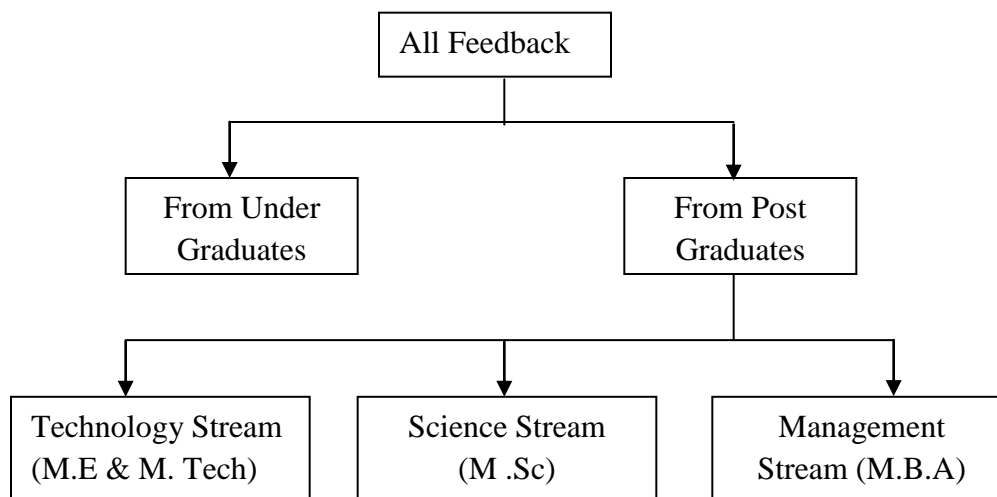
D. Segmentation of the Report

As mentioned earlier, the target population was all those students who have just graduated from the institute and their total strength department-wise and the %ge of the response obtained (i.e. feedback), is given below:-

Therefore the feedback can broadly be divided into two segments, those from the students of the Undergraduate course (i.e. Engineering) and those from the Post Graduate streams. The Post Graduate portion may further be sub-divided into three areas

- i) Technological (M.E & M. Tech)
- ii) Science stream (M. Sc) and
- iii) Management stream (MBA).

The entire picture is shown below by a diagram.



The no. of students who have responded vis-à-vis the student batch size is given is given below (Fig : D.1) :

<i>DISCIPLINE WISE RESPONSES VS BATCH SIZE UG - 2013</i>			
DEPT NAME	UG DEGREE	NO. OF STUDENTS ON ROLL	NO. OF RESPONSES
CIVIL	B.E	89	40
MECHANICAL		65	22
ELECTRICAL		64	14
MET & MATERIALS		32	13
MINING		28	8
IT		48	22
ETC		35	9
CST		52	16
ARCHITECTURE	B. Arch	19	9
TOTAL		432	153

<i>DISCIPLINE WISE RESPONSE VS BATCH SIZE PG ENGG. (M.E) 2013</i>			
DEPT NAME	PG DEGREE	NO. OF STUDENTS ON ROLL	NO. OF RESPONSES
CIVIL	M.E	61	36
MECHANICAL		15	6
ELECTRICAL		17	9
ICE		13	12
ETC		14	9
CST		13	8
MET		4	6
ENGINEERING MECHANICS		8	6
ARCHITECTURE	M. Arch	4	4
TOTAL		149	96

<i>DISCIPLINE WISE RESPONSE VS BATCH SIZE PG ENGG. (M.TECH) 2013</i>			
DEPT NAME	PG DEGREE	NO. OF STUDENTS ON ROLL	NO. OF RESPONSES
VLSI Design	M. Tech	19	12
Materials ENGG & Mechatronics		24	7
IT		27	16
Safety & Occupation Health		17	10
TOTAL		87	45

<i>DISCIPLINE WISE RESPONSE VS BATCH SIZE PG SCIENCE (M.sc) 2013</i>			
DEPT NAME	PG DEGREE	TOTAL NO. OF COPIES	TOTAL NO. OF COPIES
MATHS	M. Sc	22	5
PHYSICS		24	20
CHEMISTRY		24	16
GEOLOGY		17	10
FOOD TECHNOLOGY		9	7
TOTAL		96	58

<i>DISCIPLINE WISE RESPONSE VS BATCH SIZE PG - MBA 2013</i>			
DEPT NAME	PG DEGREE	TOTAL NO. OF COPIES	TOTAL NO. OF COPIES
FINANCE	MBA	33	4
MARKETING			6
OPERATIONS			5
TOTAL		33	15

Part I of this report contains the analysis of the feedback from the Undergraduate students who have been through a residential 4 year program. This experience has made them familiar with all the aspects of campus life, academic bottlenecks and systemic flaws which limit their career aspirations. It is for this experience that their feedback assumes great importance, primarily because these students are now in a position to say what should and what should not be done in all matters concerning grooming of students both from the academic as well as the behavioral point of view.

Part II, III, IV and V refer to the feedback from the Post Graduate Technology streams, the Science streams and the Management stream. Although these students may not have spent as much time on campus as the Undergraduate students, since they are already graduates and generally older than the UG students, they compensate for this lack of time spent on campus by having a matured outlook. Thus, their feedback is also as important as the others.

METHODOLOGY

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Methodology

Step I

In order to collect feedback from the students through the response survey, pretested by interaction with few selected students. The format of this questionnaires is given in **ANNEXURE – 1**. The format was divided in four parts, A,B,C & D which has been described below.

Part A - Consists of the academic and other details of the student which required the respondent to put tick marks in the appropriate space or write a few words (e.g. "Co name and Designation" in case the student was employed in a particular company).

A.1,2 ,3 & 4) *Academic details of the student*:- i) University Registration No. ii) E-mail ID iii) Mobile no. iv) Course at IEST and v) Stream/ Specialization

A.5.1) *Job Details* :- i) Co. Name ii) Designation iii) Selection Mode

A.5.2) *If enrolled for Higher Studies* :- i) Course Name ii) Institute Name iii) Admission Mode

A.5.3) *If doing Business* i) Type of Business :- Family/1st Generation Entrepreneur/New Start Up

Part B - Captures the future intentions of the student and feelings regarding present job (if any)

B.1) *Aim before Course Completion* :- i) Job ii) Research iii) Self-Employment

B.2.1) *Desire for a Job In* :- i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services and viii) Teaching

B.2.2) *Desirous of Higher Studies In:-* i) Technical Areas ii) Management iii) Any Others

B.2.3) *Priority for Rating an Organization:-* i) Branding ii) Pay & Perks iii) Scope for Learning & Growth iv) Congenial Working Environment v) Job Security vi) Logistics vii) Any Others

B.2.4) *Views regarding Job:-* i) Thoroughly unsatisfied ,looking for change ii) O.K. for Time Being iii) Reasonably Satisfied iv) Satisfied beyond Expectations

B.2.5) *Why Higher Studies:-* i) Improves Job Prospect ii) Default option Job-Scarcity iii) Career in Teaching or Research iv) Any Others

Thus the inputs to Section B by the respondents consists of making choices (e.g. B.2.1 → type of job that a student would like to have – working in Core Domain, Analytics etc) by entering numbers (1,2,3 ...) in the appropriate position or by putting Yes or No (for B.2.4 & B.2.5).

Part C - This section has two parts. The 1st (C1) explores the personal initiatives that have been taken by the student and the 2nd part (C2) asks the student to list those “Career development Initiatives” organized by the Institute in which he/she has participated.

Part D - There are three sections within this part (i.e. D), which are as follows:-

D1:- Initiatives that can be taken by the INSTITUTE to help in Career Building

D2:- Curricular Reform to Improve Career Prospects

D3:- Modification in Teaching Learning Methods to improve Career Prospects

Therefore this portion of the feedback format contains the ideas contributed by the students regarding improvement in various areas like curriculum, teaching methods and association with industry, which if implemented by the Institute, would probably be immensely beneficial to the students who would be graduating in future. From this viewpoint, this part of the format probably conveys the most important feedback received from the students. A sample of a filled– up form has been given in **ANNEXURE – 1 (A)**

Step II

i) **Data Entry:-** The feedback forms (all hard copies), were first sorted departmentally, their numbers counted and entering of data commenced only after this step. After data-entry of a particular department was over, a printout was taken and this was checked with the original sheets for any mistakes like omission etc. A sample of this printout has been given in **ANNEXURE – 2**

Step III

ii) **Combination Across Departments**

ii) **Section A & B:-** It has already been mentioned (in Step I of this section, Methodology), that the responses to section A & B mostly involved either putting tick marks, or numbers (1,2,3....8) or writing a few words (e.g. “Co name” in case the student was employed in a particular company). In other words, entries for both these sections A & B were essentially non-descriptive. So after the data entry for all the departments was finished, all the data pertaining to sections A and B of all the departments were merged together to create a common “Master File (1)”.

iii) *Section C & D*:- Responses to both the Section C (containing two sub sections, C1 & C2) and D (having three sub-sections D1, D2 & D3) were descriptive in nature. Hence C1 & C2 were combined as well creating "Master File (2)". Similarly all the responses received under section D (i.e D1, D2 & D3) for all the departments were combined together as well to create another "Master File (3)". This combination was the precursor to the analyses for the three parts i) sections A& B combined ii) sections C1 and C2 combined and iii) sections D1, D2 and D3 combined.

Step IV

Cluster Formation

i) C1 & C2:- Combination of the widely disparate responses received for sections C1 (Career Development Initiatives taken by yourself) and C2 (Participated in Career Development Initiative of Institution) was done based on similarities of activities and three main clusters could be formed. The first two clusters were based on two core sets of activities, the first of which was linked to the Career Development Initiatives taken by the Institution [FA(SD) - Formal Activity - Self Development] and the other was linked to the Career Development Initiatives taken by the student [SDI - Self Development - Self Initiative]. A lot of responses in this section was of the nature of "suggestions", and so the third (and last) cluster was formed under that heading (i.e. Suggestions).

ii) As already mentioned earlier, Section D may be considered the most important portion of the format as it asks the students to give their suggestions regarding i) Career Building (D1) ii) Curricular Reforms (D2) and iii) Modification in Teaching-Learning methods (D3). The crystallized core of all these different feedback may be expected to provide guidelines

to the Institute to draw-up a roadmap for upgrading its academic framework and other associated inputs.

After merging of all the responses across all the departments for section D (i.e. D1, D2 & D3), cluster were formed based on similarity of activities or "ideas" as in the case of C1 and C2. Thus ten clusters were formed which are described as follows:-

- i) MA – "Miscellaneous Academic "related activities
- ii) MNA – "Miscellaneous Non Academic "related activities
- iii) NCC - New Class/Training/etc for (Knowledge/Career Dev)
- iv) NCH - New Class/Training/etc for (Higher Studies)
- v) NS – Suggestion for New System
- vi) ORP – "Out Reach Process "– Suggestions for developing Industry linkage
- vi) PC - Placement Cell Related
- vii) SIC - Suggestion regarding "Systems Improvement (Curriculum) "
- viii) SIE - Suggestion regarding "Systems Improvement (Examination) "
- ix) SII - Suggestion regarding "Systems Improvement (Internship) "and
- x) SIP –Suggestion regarding "Systems Improvement Pedagogy"

Step V

Formation of Clusters WITHIN Clusters

All the responses in each of the three clusters of Section C as well as those of the ten clusters of Section D were critically examined to identify further similarity in thought or idea so that the core feedback can be extracted. Therefore, a number of iterations were carried out, and those responses

which seemed irrelevant and unrelated or vague were discarded. The different sub-codes within the primary codes IN Section D (D1, D2 & D3) have been given below :

Codes & Sub Codes Used in Successive Consolidation										
SL	Code	Meaning	Different Sub Codes Used							
A	MA	Miscellaneous Academic	Encourage	Improve	Innovative	Lab	Misc	More	Motivated	
B	MNA	Miscellaneous Non Academic	<i>Sub Coding Not Done</i>							
C	NCC	NCC - New Class/Training/etc for (Knowledge/Career Dev)	Develop	English	GD & PI	Grooming	Misc	Training	W/Shop	
D	NCH	NCH - New Class/Training/etc for (Higher Studies)	Coach	New Course						
E	NS	New System / Area	<i>Sub Coding Not Done</i>							
F	ORP	Out Reach(Practical Knowledge Gain)	Collaboration	Exposure	Inter-College	Interaction (Alumni)	Interaction (Industry)	Misc	Seminar	Training
G	PC	Placement Cell	<i>Sub Coding Not Done</i>							
H	SIC	Systems Improvement (Curriculum)	Curriculum	Decrease	English	IIT	Lab	Misc	Practical's	Projects
			Software	Training	Up-to-date	Visits	W/Shops			
I	SIE	System Improvement (Exams)	Exam	Misc	Question					
J	SIP	Systems Improvement (Pedagogy)	Interactive	Misc	Notes	Practical's	Teaching Methods			

After successive such iterations, the “final list of feedback” from the students was obtained which has been described in the section for UG Students.

In the next section, a bird’s eye view of the entire feedback given by all the UG & PG (M.E, M.TECH, M.SC, M.B.A) Students has been given. the review starts with the summarized feedback of the A & B portions followed by the Overall summary of the D1 , D2 & D3 portions.

**OVERALL ANALYSIS
OF
ALL GROUPS**

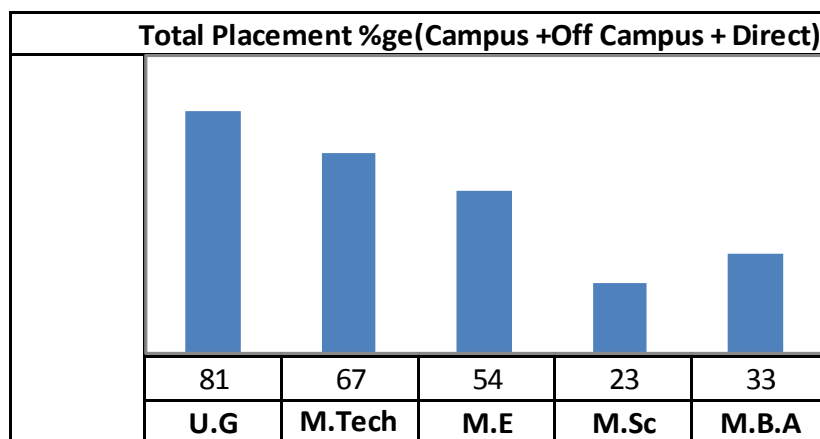
Overall Analyses of All Groups

In the following pages, a synopsis of the overall feedback from the UG & PG students has been given. The analysis of the A & B sections is followed by that of D1 , D2 & D3 sections of the response survey questionnaires.

Analysis of A& B Sections

Stream / Specialization		U.G	M.Tech	M.E	M.Sc	M.B.A
Total No. of Sheets		153	45	96	58	15
		% to Total				
Mode of Selection (A.5.1)	Campus	67	9	11	2	0
	Off Campus	13	16	10	14	33
	Forced/Dir	1	42	33	7	0
	NA	8	18	17	38	53
A.5.2	Higher Study	9	16	27	40	0
	Business	1	0	1	0	13
Aim Before Course Completion (B.1)	Job	69	33	27	29	67
	Research	22	53	60	52	7
	Self-Employment	5	4	5	0	0
	NA	5	9	7	19	27

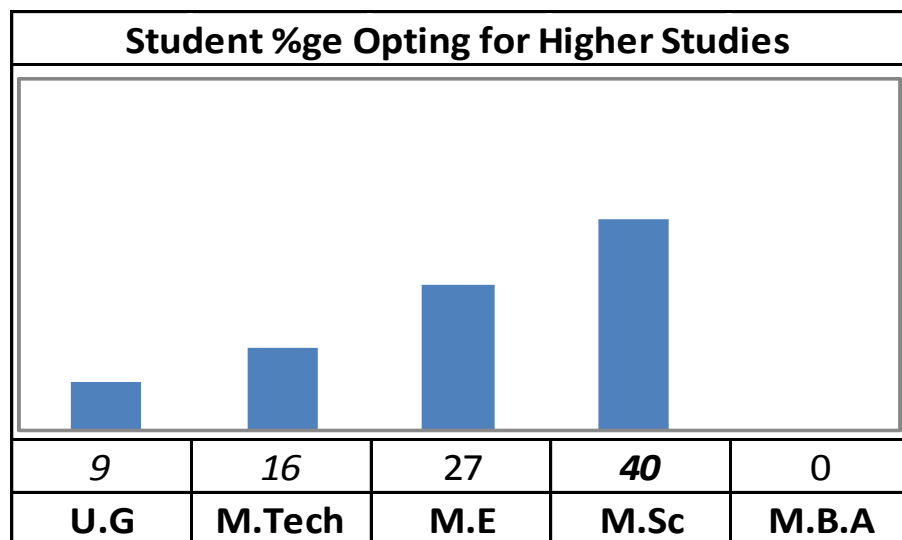
A.5.1: Mode of Selection



The graph suggests that placement activity is most concentrated for the UG group than for the others (least recipient seems to be the M.Sc group). One logical reason for this bias could be that, to outsiders, apart from standards of academic excellence, the placements of the UG stream may indicate its ranking among other similar institutes. Hence the desire to project an excellent image. The two areas which have fared rather poorly in the placement scenario is

the M.Sc and the MBA group. The graph also shows the %ge of students in each stream who have not responded in this particular category.

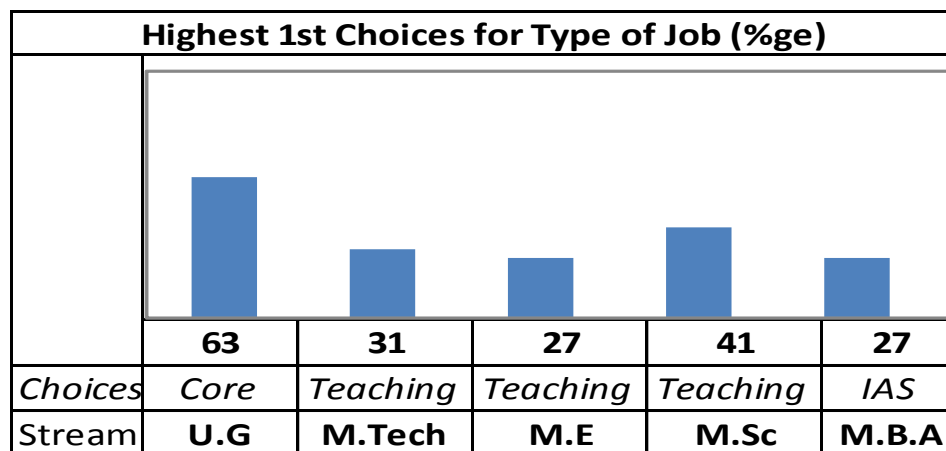
However the placement picture may not be complete without projecting the number of students who have willingly opted out of the placement process – for higher studies or setting up their own business. This status is given below:



The picture presented is almost the reverse of the previous graph on placement and it shows that the number of students opting for higher studies have been increasing across the streams with the UG group showing the lowest tendency and the M.Sc group showing the highest.

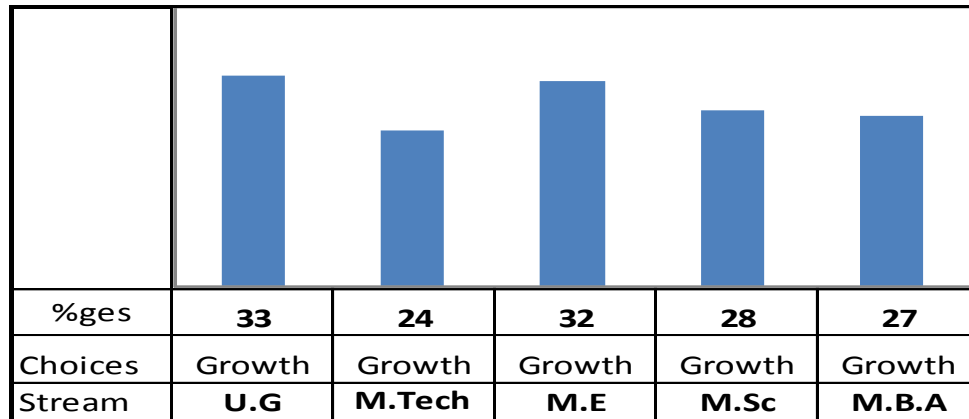
Therefore this graph explains that the reason why the placement has been poor in M.Sc group is because many have joined PhD courses and so have probably opted out of the placement process. However the rather poor placement in the MBA group remains unexplained except for the fact that 67% of the students chose not to comment in this section (i.e. Mode of Selection) – which means that this feedback is only from 47% (100 – 53%), of 15 students, i.e. 7 students only.

B.2.1 : Preference for Type of Job



The graph shows the highest %ge 1st choice figures opted by students of different streams. It is rather surprising that the highest 1st choice of the students of the M. Tech, ME and M. Sc streams are similar (i.e. Teaching) though the degrees are different – highest %ge being for the MSc stream. The reason could be a logical conclusion – after Under Graduate courses, students usually join Post Graduate courses with the ultimate aim of entering the teaching profession. However, students of the MBA stream have gone against this logical trend and opted for a career in Civil Services (IAS). As expected, 63% the UG group students have chosen a “Career in the Core Domain” – after all they have spent four years on the campus, studying engineering, only for this purpose. So it seems that they have made a very logical choice.

B.2.3 : Organization Preference



It is worth noting that the 1st choices of all the streams were “Growth” though in various proportions and as can be seen the ME stream had the highest %ge (33).

		%ge giving 1st Choices				
		U.G	M. Tech	M.E	M. Sc	M.B.A
Organization Preference based on (B.2.3)	Branding	13	4	3	0	13
	Pay & Perks	7	7	8	0	0
	Growth	33	24	32	28	27
	Congenial Place	7	7	7	0	0
	Job Security	13	13	14	28	20
	Logistics	2	0	2	0	0
	NA	0	0	0	0	0

It is also most interesting to note that the second highest choice for all the streams are related to “Job Security” and the %ges were as follows:- UG – 13; M.Tech -13; M.E – 14; M.Sc -28 and MBA- 20. As suggested earlier, this choice may have been a reflection of the general middle class mentality

which gives a value to matters concerning “safety”. The M.Sc group had the same %age (28) for both the 1st choice and next best one and this may suggest that students may have had a desire for the best of both worlds. The choices for “Pay & Perks” are also low across all the streams as students may have thought that “Growth” subsumes this factor.

Surprisingly, the choices of all the streams for “Branding” as well as “Pay & Perks” is much less than “Growth” and this may be construed as a sign of their maturity in selecting an organization which offers potential for growth but may not have much exposure by way of brand value.

B.2.4 : Job Satisfaction

		U.G	M. Tech	M.E	M. Sc	M.B.A
Job Satisfaction (B.2.4)	Thoroughly Unsatisfied	10	49	1	10	7
	OK for time being	48	22	31	26	20
	Reasonably Satisfied	22	0	33	12	7
	Satisfied Beyond Expectation	2	27	4	2	0

The M.E group seems to be least dissatisfied (Thoroughly Unsatisfied) with the jobs that they have (1%), followed by the UG, & M.Sc groups (10% each). The M.Tech group has the lowest satisfaction rate 22%(OK for time being + Reasonably Satisfied) and the highest dissatisfaction rate (49%). So it seems that nearly 50% M.Tech students are dissatisfied with the vocation that they have chosen.

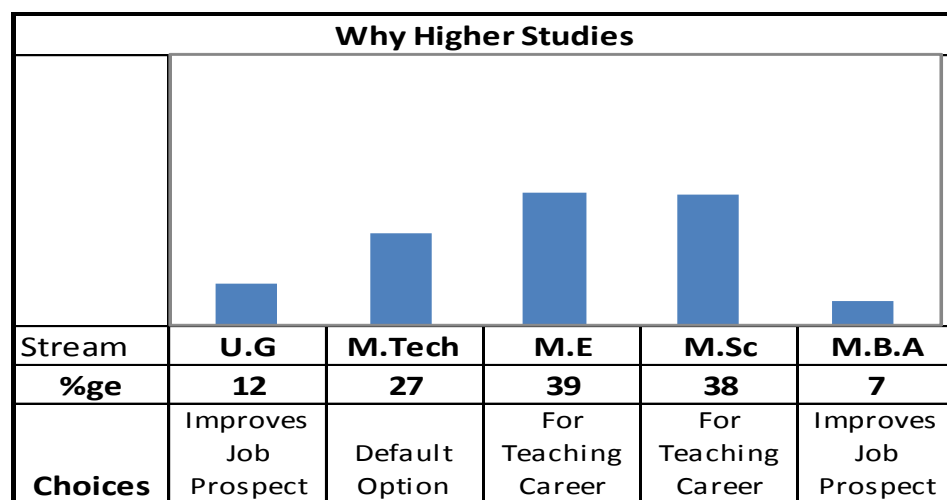
The ME group has a high satisfaction rate 64% (OK for time being + Reasonably satisfied). Since many of the M.E Students have joined as faculty members in Private Engineering Colleges in and around Calcutta, the environment, quality of students and class-load may have had a bearing regarding this feeling of satisfaction.

The M.Sc group pass-outs also have low "more-or-less satisfied (OK for time being + Reasonably satisfied) at only 38%. Since their highest 1st preference for choice of jobs was "Teaching", it seems that many (100-38=62%) may be dissatisfied with the vocation that they have chosen.

For the UG group, the level of dissatisfaction is low (10%), and 70% are more-or-less satisfied (OK for time being + Reasonably satisfied). Since their 1st "Choice of Jobs" was in the "Core Sector" it could be that the around 70% only have been successful in getting jobs as per their domain choice.

The Satisfaction of the MBA group with the jobs that they are holding (27%) is also quite low.

B.2.5 : Why Higher Studies



From the above graph it is evident that there is some similarity in what higher studies mean to different streams. While the UG and MBA groups feel that it “Improves Job Prospects”, both the M.Sc as well as the ME groups feel that it is a stepping stone to a “Teaching Career”. That it is a “Default Option” is the lone choice of the M.Tech students.

3. Analysis and Findings for Sections D (D1, D2 & D3)

It has been earlier explained that feedback for this section had been arranged in different groups according to different codes (MA, MNA, NCC, ...), representing similar activities or thoughts. These codified groups were further refined through successive iterations and all these groups are described in the following pages:-

a. Consolidated List for “MA (Miscellaneous Academic)”

MA (Miscellaneous Academic) -- Final Consolidated List After Filtering & Coding					
Group	Sub Code	Item	Group	Sub Code	Item
UG	Learning	Allowing cross-departmental learning	UG	Practical's	Apart from theory ,more stress on practical lab sessions.
		More stress on learning rather than marks.	M.Tech		Industry or Current research related assignments.
		Solve in class test papers of Engg & Civil Services Exam.			Minor project with each subjects.
ME		Idea about various Software's used in industry , like ANSYS ,TEKLA , ABACUS etc .	ME	Choice	Increase Scope of Choosing Elective papers.
		Providing training about writing technical documents.		Coaching	Coaching for PSU entrance exams.
M.Tech		Special training on mathematics.		Facility	More faculty & laboratory facilities.
M. Sc		More Seminars should be organized.		Technology		Access to Up- to date technology & software.
		Participate in various Competitions, Surveys , Seminars.	Discussion & orientation about the current ongoing research in the World.		
			M.Tech	R&D	R&D activities can be increased to help those interested in Higher Studies.

The above list is the “gist” of the suggestions received from all the groups under this category (i.e. MA). Since the number of feedback was voluminous, sub-codes had to be used to identify clusters of similar thinking. As can be seen that the sub-group labeled “learning” has the most number of suggestions which range from i) Allowing Cross-departmental learning ii) Ideas about various software iii) Training to write technical documents iv) Arrange for more seminars and a plea to put v) More stress on learning than just obtaining marks. These feedback can be further divided on the basis of time frame of implementation as follows:

A. Short Term implementation plan:-

i) Increase Scope of Choosing Elective papers ii) Coaching for PSU entrance exams. iii) Solve in class test papers of Engg & Civil Services Exam iv) Idea about various Software’s used in industry, like ANSYS ,TEKLA , ABACUS etc

B. Medium Term implementation plan:-

i) Allowing cross-departmental learning ii) Participate in various Competitions, Surveys, Seminars iii) Providing training about writing technical documents. iv) Special training on mathematics. v) Apart from theory more stress on practical lab sessions vi) Minor project with each subjects. vii) Access to Up- to date technology & software. viii) Discussion & orientation about the current ongoing research in the World ix) More Seminars should be organized.

C. Long Term implementation plans:-

i) More faculty & laboratory facilities. ii) More stress on learning rather than marks iii) Industry or Current research related assignments. iv) R&D activities can be increased to help those interested in Higher Studies.

b. Consolidated List for “MNA (Miscellaneous Non-Academic)” is given below:

MNA (Miscellaneous Non Academic) -- Final Consolidated List After Filtering & Coding					
Code	Dept	Item	Code	Dept	Item
MNA (Miscellaneous Non Academic)	CE	Initiate Cultural functions.	MNA (Miscellaneous Non Academic)	MET	Career Counseling.
		Promote art & literature/Form Cultural Committees.			Have Cyber Library.
		Promote quizzing, debating.			Organize Career Fair every year.
		Providing scope to students for expression of ideas.			Offering electives each semester in interesting areas like Finance, International Affairs.
		Student exchange programmers(2)			Better teacher student interaction.
	EE	Discuss GK, Current Affairs, Literature & Culture.		ETC	Exposure to sports & games to develop personality & leadership qualities.
	IT	Communication training.		CST	Organize small competition with prizes.
		More stress on overall growth rather than only academics.			Provide platform for students to air their views.

The list concerning feedback in non-academic areas is given above. Since the different items are quite diverse in nature, no attempt has been made to group them into further clusters and these have been presented as they have been given by the students.

Some of these can be implemented soon like i) Career Counseling ii) Communication Training iii) Discuss GK, Current Affairs, Literature & Culture iv) Initiate Cultural functions v) Promote quizzing, debating.

Other ideas are medium term in nature like i) Exposure to sports & games to develop personality & leadership qualities ii) Have Cyber Library iii) Offering electives each semester in interesting areas like Finance, International Affairs iv) Organize Career Fair every yr v) Organize small competition with prizes vi) Promote art & literature - Form Cultural Committees

Some ideas are long term in nature as they need deliberations before implementation like i) Better teacher student interaction ii) More stress on overall growth rather than only academics iii) Provide platform for students to air their views iv) Providing scope to students for expression of ideas v) Student exchange programmers.

b. Consolidated List for “NCC -- New Class/Training/etc for (Knowledge/Career Dev)” and “NCH - New Class/ Training /etc for (Higher Studies)”

NCC - New Class/ Training /etc for (Knowledge/Career Dev) & “NCH - New Class/Training /etc for (Higher Studies)-Final Consolidated List After Filtering					
Code	Group	ITEM	Code	Group	ITEM
NCH	UG	Allowing cross-departmental learning.	NCC - New Class for (Knowledge/Career Dev)	M.Tech	IAS, IES Coaching classes.
NCC - New Class for (Knowledge/Career Dev)		Class on Personality Development, improving Body Language(2)			Improvement of Soft skills.
		GD & PI in 3rd yr(2)		M.Sc	Career advancement coaching , Mock test for Campus interview.
		Lectures by experienced field engrs			Discuss about problem & solution of Competitive examinations (NET , GATE ,IISC ,BARK).
		Training for Spoken English			

The above feedback aims to equip the students with training in different areas like soft skills, English fluency, GD & PI, mock interviews for the purpose of career development. Some of these like Spoken English classes, workshops for GD & PI, mock interviews, development of Soft Skills may be introduced soon on an experimental basis by the Institute. The others can follow sometime later.

d. Consolidated List for “NS -- New System Introduction”

<u>NS (New Systems/Area) - Overall Consolidated List After Filtering</u>						
Code	Group	Item	Code	Group	Item	
NS (New Systems/Area)	UG	Abolish 75% attendance.	NS (New Systems/Area)	M.Tech	Equal division of marks between assignment & written exam.	
		Criteria for 1st Class to be 60%.			No end semester exams.	
		No conditions for sitting in Semester exams.		M.Sc	External correction of papers.	
		Students should be allowed to do classes of their own interests.			Feedback by students of teachers.	
	ME	Consult industrialists & ex-students while preparing syllabus.				
		Teaching Assistants for PG students.				

The above list mentions feedback regarding “New Systems Introduction”. While all of these are certainly novel ideas some are quite radical like i) Abolish 75% attendance ii) Criteria for 1st Class to be 60% iii) Equal division of marks between assignment & written exam. iv) External correction of papers v) No end -semester exams. vi) No conditions for sitting in Semester exams vii) Students should be allowed to do classes of

their own interests. A very novel feedback is the request for viii) Feedback by students regarding teachers. Needless to say that all of these radical ideas need a lot of deliberation before taking a decision which ones to implement.

e. Consolidated List for “ORP - Out Reach (Practical Knowledge Gain)”

ORP - Out Reach(Practical Knowledge Gain) - Final Consolidated List					
Code	Group	ITEM	Code	Group	ITEM
ORP - Out Reach(Practical Knowledge Gain)	UG	Seminars/Lectures by eminent personalities.(2)	ORP - Out Reach(Practical Knowledge Gain)	UG	Collaborate with industry to improve academia-industry relationship.
		Tie-up with premier institutes for student exchange.		M.Tech	Arrange for Internship in Research Labs / Industry.
		Organize design competition between top universities in the country.		MBA	Increase in visiting Faculty from High Graded Institutes.
	Interaction with Alumni.				

The feedback in this category indicates the desire of the students to have a better tie-up with the industry and personnel of the corporate world (alumni, distinguished guest faculties, industrial projects) not only to increase their practical knowledge but also to increase their acceptability by the industry in an increasingly competitive markets. Though undoubtedly some effort to reach-out to this practical world is already being done, implementation of at least some of the key ideas as expressed above is expected to be vastly beneficial to the entire student community and therefore worth consideration.

f. Consolidated List for "PC - Placement Cell Activities"

PC (Placement Cell) - Final Consolidated List After Filtering					
Code	Dept	ITEM	Code	Dept	ITEM
PC (Placement Cell)	UG	List of companies to be shown to student for making choice.	PC (Placement Cell)	ME	Arranging for Core Companies to select PG students.
		More classes on Campus Placement procedure.			Job opportunities for those willing to do R&D sectors.
	M. Sc	More camping for teaching jobs..			Request Industrial training for the M.E ETC Students.

All suggestions in this category relates to the activities of the Placement Cell. There is already a robust Placement Cell working for the benefit of all segment of the student population and undoubtedly some of these suggestions (for example "Arranging for Core Companies to select PG students") are already being done or in the process of being done. Regarding the other suggestions, the practicability of these would have to be explored before consideration for implementation.

g. Consolidated List for “SIC - Systems Improvement (Curriculum)”

This list consists of the largest number of suggestions and so these have been sub-coded into similar categories or sub-codes some of which are as follows. The detailed list is given after presenting the gist as below:-

1. Curriculum- Some of these includes i) complying with industry standards ii) including industrial projects, and iii) scrapping unnecessary subjects

2. Misc - Some of the items are :- i) better coverage of technical issues ii) make vocational training and summer project compulsory iii) more real-life projects

3. Software - Some of the items are :- i) Introducing MATLAB in curriculum ii) teach latest Mining Software’s (MINEX, SURPAL) from 3rd yr iii) More of C, C++, Java in all departments to prepare for mass recruiting done by IT firms iv) Course on Auto-Cad, ANSYS v) Teach Planning Software

*4. Up-to-date -*Items in this category refer to up gradation of the syllabus by introduction of latest technology details and offering more advanced Electives.

5. Visits - These relate to requests for compulsory visits to industry especially Power Plants and Core Industries to become acquainted with the technology adopted there.

The Consolidated list of the SIC items is given below:

**SIC - Systems Improvement Curriculum - Final Consolidated List - After
Deletion & Sorting**

<i>Code</i>	<i>Sub-Code</i>	<i>ITEM</i>	<i>Code</i>	<i>Sub-Code</i>	<i>ITEM</i>	
SIC (Systems Improvement Curriculum)	Curriculum	Curriculum to comply with Industry standards	SIC (Systems Improvement Curriculum)	Up-to-date	Modernize syllabus	
		Curriculum to include Industrial projects			More advanced Electives	
		Department specific curriculum from 1st yr			More focus on latest technologies	
		Scrap unnecessary subjects in different semesters			Decrease	Reduce number of subjects per semester
	Improvement in subject-related software skills			IIT	Adopt IIT mechanism as far as possible	
	Include Coding in MATLAB curriculum			Lab	Lab assignments should change every year	
	Latest Mining Software's e.g. MINEX, SURPAL from 3rd yr			Practical	Have individual viva of Practical's	
	More sessions on Technical & Coding skill development			Projects	More real-life projects based on course-work	
	More stress on Analog & Digital Communication			Training	Vocational training at the end of 3rd yr	
	More syllabus of Java, C++, C in all departments , as mass recruiting done by IT firms	Software		SIC (Systems Improvement Curriculum)	Misc	Better coverage of modern and industry based technical issues
	Courses on Auto-CAD, ANSYS etc					Computer application in Metallurgy
	Teach Planning Software					Introduce course in Music & Painting for Arch students
	Compulsory visits to some Core Industries					Make Vocational Training Compulsory
	More industry tours from 3rd Sem	Mandatory Summer project				
	More visits to industry & Power Plants	Teach Protective Relay in 3rd Yr				

h. Consolidated List for “SIE- System Improvement (Exams)” and “SIP - Systems Improvement (Pedagogy)”

SIP - Systems Improvement (Pedagogy) - Final Consolidated List After Filtering					
<i>Code</i>	<i>Group</i>	<i>ITEM</i>	<i>Code</i>	<i>Group</i>	<i>ITEM</i>
SIP - Systems Improvement (Pedagogy)	UG	Give Xeroxed class-notes earlier.	SIP - Systems Improvement (Pedagogy)	UG	Interactive classes instead of PPTs.
		Use of modern teaching tools - demonstration with 3D models , simulation, real life examples etc.		ME	Arrangement of Video Lectures by International Personalities.

The above list combines feedback regarding “Pedagogy” or the manner in which the knowledge about the subjects is imparted to the students by members of the faculty. The list contains some items which probably can be implemented in a short while like i) “Give Xeroxed class-notes earlier” ii) Interactive classes instead of PPTs. The other suggestions like “Arrangement of Video Lectures by International Personalities” and Use of modern teaching tools - demonstration with 3D models , simulation, real life examples etc” would need a longer time frame to implement..

Part I

Details of Analysis & Findings

of

Undergraduate Students

Part II

Details of Analysis & Findings

of

Postgraduate Students (M. Tech)

1. Analysis and Findings for PG (M.Tech) Sections A & B

Summary of M.Tech (A & B Sections)									
	Total M.Tech = 45								
		No	% to Total						
Mode of Selection (A.5.1)	Campus	4	9	Preference for Type of Job (B.2.1)	Core Domain	16	24	40	
	Off Campus	7	16		Analytics	2	0	44	
	Forced/Dir	19	42		ITES	0	4	44	
	NA	8	18		Multi-Disciplinary	2	0	47	
A.5.2	Higher Study	7	16		R&D	29	16	31	
	Business	0	0		Consultancy	2	2	49	
Aim Before Course Completion (B.1)	Job	15	33		Civil Services	4	7	44	
	Research	24	53		Teaching	31	9	31	
	Self-Employment	2	4		Higher Study In (B.2.2)		%1st	% 2nd	None
	NA	4	9			Technical	42	2	33
Organization Preference based on (B.2.3)		%1st	%2nd	None	Management	7	24	64	
	Branding	4	2	58	Job Satisfaction (B.2.4)	Yes (%)		NA (%)	
	Pay & Perks	7	9	51		Thoroughly Unsatisfied	49	51	
	Growth	24	13	42		OK for time being	22	78	
	Congenial Place	7	4	56		Reasonably Satisfied	0	10	
	Job Security	13	9	44		Satisfied Beyond Expectation	27	73	
	Logistics	0	4	60					
Why Higher Studies (B.2.5)	Yes (%)		NA (%)						
	Improves Job Prospect	0		10					
	Default Option- Job Scarce	27		73					
	Career in Teaching/research	2		98					

A.5.1 : Mode of Selection

The placement statistics reveal that 67% were placed through Campus /Off Campus/Forced Method of Placement, 16% opted for higher studies and about 18% preferred not to participate in the feedback. This pattern of placements is similar to that of the Undergraduate students indicating that these PG students also preferred to join an organization rather than going

for higher studies. This picture is in contrast with the PG (M.Sc) students where a large number have opted for higher studies which may indicate a lack of job openings at this level compelling those students to go in for additional qualification to add value in the job market.

B.1 : Aim before Course Completion

Only 33% of the students sampled preferred to go in for a job whereas a much larger number 53% indicated their preference for “research” – which is in complete contrast to what actually happened after these students completed their course (67% placed and only 16% opted for higher studies – as mentioned in previous paragraph A.5.1). The PG (M.Sc) students also had a similar pattern in this area where a much larger number (52%) had indicated their desire for “research” work prior to their course completion.

B.2.1 : Preference for Type of Job

Preference for Type of Job	SUM (Pref)		
	%1st	%2nd	%None
Core Domain	16	24	40
Analytics	2	0	44
ITES	0	4	44
Multi-Disciplinary	2	0	47
R&D	29	16	31
Consultancy	2	2	49
Civil Services	4	7	44
Teaching	31	9	31

Similar to the UG and the PG (M.Sc) students, these PG (M.Tech) students also had nine options to grade from and these were i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services viii) Teaching and ix) Any Others. Unfortunately along with the

responses in each of these categories there has been many cases of students who have chosen NOT to respond – about 40% in each category, as is evident from the above chart.

Among the 1st choices, responses were → i) Teaching (31%) ii) R&D (29%) & iii) Core (16%). Although “Teaching” has attracted the major %age, yet this choice is not consistent with their actual post-academic decision where a large number of students (67%) opted for a job and only 16% went for higher studies presumably to take-up teaching positions later on in their career.

However this is similar to the choices made by the PG(M.Sc) students where the majority of the 1st choice was for a Teaching career (41%). It is also surprising that only 16% chose “Core Domain” as their 1st choice and therefore it would be interesting to know the actual areas where those who joined different organizations were working in.

This variance between the pre-completion choice and post-completion decision may indicate that the students may have accepted jobs offered by the Placement Cell, thinking that “a job in hand” may be a better option than pursuing further studies for embarking on an uncertain teaching career.

For 2nd choice, responses were → i) Core Domain (24%) ii) R&D (16%) & iii) Teaching (9%) and this is actually a reverse of the 1st choice and similar to the 1st choice made by the UG students.

B.2.2 : Preference for Higher Studies

Among the 1st choices, responses were → i) Technical (42%) and ii) Management (7%). In the absence of data of the specific areas (i.e Technical or non-technical) of those who have gone in for “Higher Studies”, a correlation between pre-choice and post-decision was not possible.

For 2nd choice, responses were the opposite → i) Technical (2%) and ii) Management (24%) ; however, since the number of non-responses were high (64%), the reliability of this feedback is suspect. Surprisingly this trend of the 2nd choice being the opposite of the 1st, is common to the UG and also the PG (M.Sc) groups.

B.2.3 : Organization Preference

	%1st	%2nd	%None
Branding	4	2	58
Pay & Perks	7	9	51
Growth	24	13	42
Congenial Place	7	4	56
Job Security	13	9	44
Logistics	0	4	60

Regarding their preference for choosing an organization, the students had six options to choose from which were, i) Branding ii) Pay & Perks iii) Growth iv) Congenial Place v) Job Security and vi) Logistics.

Among the 1st choices, responses were → i) Growth (24%) ii) Job Security (13%) and this order of preference (Growth followed by Job Security) is exactly similar to that indicated by the UG and the PG(M.Sc) students. This only indicates their maturity as well a cautiousness (i.e. choosing Job Security) which may be a result of their assessment of the present unstable times.

Surprisingly among the 1st choice, Branding and Pay & Perks had a very low percentage (4% and 7% respectively) and this is also another indication of their maturity. Unfortunately in each of these categories (Branding, Pay & Perks, Growth etc), there were many students who did not respond (for example Branding 58%, Pay & Perks 51% etc) and this may affect the accuracy of the findings.

B.2.4 : Job Satisfaction & B.2.5 : Why Higher Studies?

		Yes %	NA%
Job Satisfaction	Thoroughly Unsatisfied	49	49
	OK for time being	22	78
	Reasonably Satisfied	0	100
	Satisfied Beyond Expectation	27	73
Why Higher Studies	Improves Job Prospect	0	100
	Default Option- Job Scarce	27	73
	Career in Teaching/research	2	98

In the category of "Job Satisfaction", 49% were "Thoroughly Unsatisfied", 22% were almost satisfied (adding OK & Reasonably Satisfied) and 27% were "Satisfied Beyond Expectation". However, in view of the very large %ge of students who have chosen NOT to respond (NA), it would be improper to draw any conclusion as they would not be reflecting the true picture.

2. Analysis and Findings for Sections C (C1 & C2)

In this section feedback was solicited from the students regarding two areas which were:-

- i) C1:- Career Development Initiatives taken by the student and
- ii) C2 :- Participated in Career Development Initiative of Institution

Similar to what was done in the UG and the PG(M.Sc) sections, for this PG (M.Tech) group the feedback in this section, being entirely descriptive in nature was combined across all the departments and three clusters were formed based on similarities of activities. These were

- i) FA(SD) - Formal Activity (Self Development) : Institute's Career Development Initiatives
- ii) SDI - Self Development (Self Initiative) : Student's own Career Development Initiatives
- iii) Suggestions : Included responses which were in the nature of "suggestions"

Since all the feedback received under the category of "Suggestion" have been repeated again in Section D, these have not been considered for the present discussion. Further, since the number of students were only 45 (much less than the UG group), the feedback pertaining to the above three codes were combined and shown below:

Combined C1 & C2 Items			
Code	Item	Code	Item
FA(SD)	Attended several Seminars , Workshops on Soft Computing ,FDP's, Safety etc.	FA(SD)	Workshops Organized by BESUS.
FA(SD)	Attending campus interview helps to gain Experience.	SDI	Completed the OSHSAS 18001 , Lead Auditor course from Bureau Vertices.
FA(SD)	Attending many Conferences.	SDI	Guidance of prof. helped in career development.
FA(SD)	Joined a project on illumination Safety	SDI	Improved different safety aspects to avoid or minimize server accidents in my department.
FA(SD)	Project of physical parameters & Ergonomics.	SDI	Prepared for Aptitude tests & GD with friends.
FA(SD)	Seminar on Social Media Network Analysis.	SDI	Started working with PIMT, IGNOU.
FA(SD)	Seminars on Soft skills development.	SDI	Taken some project relevant to Industry.
SDI	Self development- Individual Effort		
FA(SD)	Formal Activity - Self Dev - Part of Coursework		

Among the disparate ways in which the M.Tech students have sought to upgrade their carriers, the accent seems to be on :

Attending Seminars, Workshops and Conferences ii) Attending Campus Interviews iii) Joined in Institute sponsored projects or initiated some on their own and iv) Prepared for GDs and Interviews. Comparing these with

those of the PG (M.Sc) and the UG group, except for “Completed the OSHSAS 18001 , Lead Auditor course from Bureau Vertices” the self-development methods employed are almost the same. However a noted omission is the thrust on “English” probably because the PG students feel that at the Post Graduate level, proficiency in the technicalities of the subject matter is far more important than being proficient in the English language.

3. Analysis and Findings for Sections D (D1, D2 & D3)

It has been earlier explained that feedback for this section had been arranged in different groups according to different codes (MA, MNA, NCC,), representing similar activities or thoughts. Since the number of such feedback received was small as compared to the UG portion, the individual codes were not subdivided into sub-codes.

a. Consolidated List for “MA (Miscellaneous Academic)” is given below which consists of suggestions which are all academically linked.

<u>MA - Miscellaneous Academic (M Tech)</u>			
Dept	ITEM	Dept	ITEM
D2 IT 04	5 or 10 years plan for specific product or finding Fundamental theory.	D3 MATL 07	More case studies.
D3 IT 07	Acquaintance with Indian / International Standards & Codes.	D3 SOH 06	More practicals & lab in S.O.H course.
D1 IT 16	Allowing students to take up uncommon subjects.	D2 SOH 06	More visit to Industry to improve career prospects.
D1 IT 10	Arrange for Web based seminars to help students identify their favourite topic & also latest technology trends in Industry.	D2 IT 15	R&D activities can be increased to help those interested in Higher Studies.
D1 SOH 01	Conduct some seminars with safety professional from different industries.	D1 IT 04	Regular Seminar on specific topic & hands on experiments.
D3 SOH 10	Engage more experienced faculty.	D1 MATL 07	Seminars on Entrepreneurship development.
D3 VLSI 09	Enhanced scope of practical work with Theory.	D1 IT 04	Special training on mathematics.
D1 VLSI 07	Industry or Current research related assignments.	D2 VLSI 08	Teach recent developments in Stream.
D2 VLSI 09	Minor project with each subjects.	D1 SOH 04	Workshops on health & safety for awareness & learning of students.

The majority of the suggestions deal with requests to have i) more Seminars on various topics ii) Industry and research related projects thereby enhancing scope of practical exposure and iii) increasing scope of R&D activities which have also been echoed in the feedback of the previous UG and PG (M.Sc) groups. However there are some suggestions which are worth consideration, for example, i) A time-bound plan for specific product or finding Fundamental theory ii) Allowing students to take up uncommon subjects iii) R&D activities can be increased to help those interested in Higher Studies.

b. Consolidated List for “MNA (Miscellaneous Non-Academic)” is given below:-

<u>MNA - Miscellaneous Non Academic (M. Tech)</u>			
Dept	Item	Dept	Item
D1 VLSI 09	One Cultural Celebration.	D2 IT 10	PG course students should be encouraged for PhD & necessary guidance can be included in curriculum.

The above list contains an important suggestion that “PG course students should be encouraged for PhD & necessary guidance can be included in curriculum” which is worth consideration as the feedback in “B.2.1 → *Preference for Type of Job*” indicates that majority of the students (31%) had opted for “Teaching” (and also 29% for R&D), as their 1st choice, both for which a Ph.D qualification is necessary.

c. Consolidated List for “NCC -- New Class/Training/etc for (Knowledge/Career Dev)” and “NCH - New Class/Training/etc for (Higher Studies)”

<u>NCC - New Class/Trng/etc for (Knowledge/Career Dev) - M. Tech</u>			
Dept	Item	Dept	Item
D1 IT 08	Arrange some mock Aptitude tests.	D1 VLSI 05	IAS, IES Coaching classes.
D2 VLSI 06	Counselling on Career Development prior to placement.	D1 IT 07	Improvement of Soft skills.
D1 MATL 04	Grooming classes for Campusing.		

The following list consists of feedback which involves introducing new sessions on topics linked with Career Growth/Development as well as for Higher Studies like introducing i) Mock Aptitude tests ii) Grooming classes iii) Career Counseling and iv) Class for Soft Skills. All these are somewhat repetitions of such earlier lists for the UG and the PG (M.Sc) groups.

d. List for “NS -- New System Introduction”

<u>NS - New Systems (M. Tech)</u>			
Dept	Item	Dept	Item
D3 VLSI 07	Equal division of marks between assignment & written exam.	D3 VLSI 08	No end semester exams.
D1 SOH 07	In SOH scope for taking some classes of undergraduates courses.	D2 IT 04	Special Reasearch cell for fundamental Reasearch on Science & Technology.

The feedback received in this category is quite innovative (for example:- “Equal division of marks between assignment & written exam” and “No End-Semesters exam”), and they have been included without going into their merits.

a. Consolidated List for “ORP - Out Reach(Practical Knowledge Gain)”

This list consists of suggestions regarding establishing contact with the outside professional world in the form of i) Industry interactions, ii) More distinguished Visiting Faculty ii) Collaboration with Industry. In short this category of feedback relates to opening a channel with the outside world not only to gain real-time industry exposure but also gain valuable knowledge about systems and processes. Incidentally the feedback in this category from the UG and PG (M.Sc) group have been largely identical.

<u>ORP - Out Reach(Practical Knowledge Gain)</u>				
Dept	Item		Dept	Item
D1 VLSI 03	Arrange for Internship in Research Labs / Industry.		D3 MATL 05	More distinguished visiting professors.
D2 IT 07	Better interaction with the Industry.		D1 VLSI 08	Real time projects in collaboration of Industry.
D1 VLSI 08	Frequent Lectures from Industry / R&D.		D1 IT 16	Visit to different Companies to get an idea about the work culture & especially their R&D.
D1 SOH 02	To involve professionals to develop Industry perspective.			

E. Consolidated List for “PC - Placement Cell Activities”

All suggestions in this category relates to the activities of the Placement Cell and there is only one feedback which is **“Campus placement system should be strong”**. Incidentally this sentiment has already been expressed by the UG & PG (M.Sc) students.

e. Consolidated List for “SIC - Systems Improvement (Curriculum)”

SIC - Systems Improvement(Curriculum)				
<i>Dept</i>	<i>Item</i>		<i>Dept</i>	<i>Item</i>
D1 VLSI 03	Arrange for Final year Project in Industry.		D2 IT 08	Each students to give aPPT Presentation on some innovative Ideas towards Technological changes.
D3 VLSI 08	Have weekly or bi- weekly evaluations throughout semester.		D1 SOH 08	Full time M.Tech (SOH) course may be introduced , it possible.
D2 IT 16	Adding new technical subjects like Cloud Computing to the curriculum.		D2 MATL 07	Inclusion of more computer related subjects in all branches.
D2 VLSI 08	Design Industry oriented curriculum.		D2 SOH 04	Syllabus may be modified to give some practical exposure.

The feedback in this category is aimed for a change in the curriculum. For example i) Arrange for Final year Project in Industry ii) Have weekly or bi-weekly evaluations throughout semester iii) “Introducing Full time M.Tech (SOH) course”, are innovative ideas not put forward earlier by the UG or PG (M.Sc) students. Other ideas like i) Inclusion of more computer related subjects in all branches and ii) Syllabus may be modified to give some practical exposure, have already been mentioned earlier by the other groups.

h. Consolidated List for “SIE- System Improvement (Exams)” and “SIP - Systems Improvement (Pedagogy)”

SIP - Systems Improvement (Pedagogy)				
<i>Dept</i>	<i>Item</i>		<i>Dept</i>	<i>Item</i>
D3 SOH 02	Class test & more visual presentation required for exam preparation & better knowledge.		D3 SOH 02	Use of Blackboard instead of Projector.

The above list combines feedback regarding “Improvements in the Examination System” and also suggestions regarding “Pedagogy” or the manner in which the knowledge about the subjects is imparted to the students by members of the faculty. However, both these feedback are not new suggestions as both of them have been mentioned earlier by the UG students.

Part III

Details of Analysis & Findings

of

Postgraduate Students (M. E)

1. Analysis and Findings for PG (M.E) Sections A& B

		No	% to Total			% 1st	% 2nd	None	
Mode of Selection (A.5.1)	Campus	11	11		Preference for Type of Job (B.2.1)	Core Domain	17	9	48
	Off Campus	10	10			Analytics	0	2	55
	Forced/Dir	32	33			ITES	1	0	56
	NA	16	17			Multi-Disciplinary	3	1	52
A.5.2	Higher Study	26	27			R&D	26	14	44
	Business	1	1			Consultancy	4	3	52
Aim Before Course Completion (B.1)	Job	26	27			Civil Services	2	9	53
	Research	58	60			Teaching	27	7	44
	Self-Employment	5	5				%1st	% 2nd	None
	NA	7	7			Higher Study In (B.2.2)	Technical	61	5	33
Organization Preference based on (B.2.3)		%1st	% 2nd	None	Management	2	31	54	
	Branding	3	4	55	Job Satisfaction (B.2.4)	Yes (%)		NA (%)	
	Pay & Perks	8	9	55		Thoroughly Unsatisfied	1		99
	Growth	32	10	45		OK for time being	31		69
	Congenial Place	7	11	55		Reasonably Satisfied	33		67
	Job Security	14	8	49		Satisfied Beyond Expectation	5		95
	Logistics	2	0	56					
	Yes (%)		NA (%)						
Why Higher Studies (B.2.5)	Improves Job Prospect	22		78					
	Default Option-Job Scarce	0		100					
	Career in Teaching/research	39		61					

A.5.1 & A.5.2 : Mode of Selection & Higher Study

The placement statistics reveal that 54 % were placed through Campus /Off Campus/Forced Method of Placement, 27% opted for higher studies and 17% preferred not to participate in the feedback. Thus students joining the industrial sector is less than the M. Tech group (67%) but a larger percentage of M.E students have gone in for higher studies (27%) than those in the M.Tech category.

B.1 : Aim before Course Completion

Aim Before Course Completion (B.1)		No	% to Total
	Job	26	27
	Research	58	60
	Self-Employment	5	5

The figures show that a large number of students (60% - corresponding to 58 students) have indicated their preference for "research" and this inclination has also been reflected in their placement pattern where 27% have opted for higher studies presumably for a career in research or teaching. A similar trend has also been observed in the case of the M.Tech students where a large percentage of students (53%) have indicated their preference for "research".

B.2.1 : Preference for Type of Job

Preference for Type of Job (B.2.1)		%1st	%2nd	%None
	Core Domain	17	9	48
	Analytics	0	2	55
	ITES	1	0	56
	Multi-Disciplinary	3	1	52
	R&D	26	14	44
	Consultancy	4	3	52
	Civil Services	2	9	53
	Teaching	27	7	44

Similar to the UG, PG (M.Sc) and PG(M.Tech) students, these PG (M.E) students also had nine options to grade from and these were i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services viii) Teaching and ix) Any Others. Unfortunately along with the responses in each of these categories there has been many cases of students who have chosen NOT to respond (% None) - about 45% in each category, as is evident from the above chart. Thus conclusions based on those who have responded correspond roughly to 55% and therefore the accuracy of the conclusions may be affected.

Among the 1st choices, responses were → i) Teaching 27% ii) R&D 26% and iii) Core Domain 17%. This shows that the preference is for Teaching and Research with a career in Teaching having a slight edge. An interesting point to note is that the same pattern is evident with the PG (M.Tech) whereas in the case of the PG (M.Sc) students the overwhelming response for 1st choice was for a Teaching position (41%) followed by R & D (10%). From this picture of the PG students, a conclusion can perhaps be drawn

that at this higher level the inclination shifts to research type or purely teaching type of jobs, which is probably expected of students going in for a Masters degree.

For 2nd choice, the majority of responses were for R & D (14%) as in the 1st choice. This was followed by Civil Services (9%) and Core Domain (9%). The choice of Civil Services (even as 2nd Choice) is similar to that expressed by the PG (M.Tech) students (7%) but much different from the PG (M.Sc) students (only 3%) but they had a greater preference for R&D and Teaching (both 14%). So there seems to be a slight difference in the choices made between the PG (Science) group and PG (Technical) group.

B.2.2 : Preference for Higher Studies

Higher Study In		%1st	%2nd	%None
	Technical		61	5	33
Management		2	31	54

Among the 1st choices, an overwhelming number (61%) of responses were for the Technical stream whereas only 2% of those sampled preferred to go in for Management studies. This is along expected lines from students at the Masters level as higher studies in the Management stream would mean a deviation from their career paths which they had chosen when they had decided to pursue a Post Graduate path after graduation in Engineering. This pattern is also similar to the 1st choices made by the PG(M.Tech) students where 42% expressed their preference for higher studies in the Technical area. The pattern for the PG (M.Sc) students was also similar where 29% opted for higher studies in the technical stream.

B.2.3 : Organization Preference

Organization Preference based on		%1st	%2nd	%None
	Branding	3	4	55
	Pay & Perks	8	9	55
	Growth	32	10	45
	Congenial Place	7	11	55
	Job Security	14	8	49
	Logistics	2	0	56

Regarding their preference for choosing an organization, the students had six options to choose from which were, i) Branding ii) Pay & Perks iii) Growth iv) Congenial Place v) Job Security and vi) Logistics.

Among the 1st choices, responses were → i) Growth (32%) ii) Job Security (14%) and iii) Pay & Perks (8%). It is interesting to know that among all the groups (i.e. UG, M.Sc & M.Tech), "Growth" followed by "Job Security" is the common denominator as 1st choice for "Organization Preference". This is shown below:-

SI No.	Dept/ Branch	Growth	Job Security	Pay & Perks
i)	U.G group	33%	13%	7%
ii)	PG (M.Tech)	24%	13%	7%
iii)	PG (M.E)	32%	14%	8%
iv)	PG (M.Sc)	28%	28%	0%

The PG (ME) result is almost a mirror image of the UG group which could be because of their common engineering undergraduate background – however the resemblance in the two patterns is surprising. Putting “growth” as their major 1st choice, is a demonstration of the student’s maturity, not only because it is the natural choice in one’s career but it also automatically takes care of “Pay & Perks”. With career growth comes increased Pay & Perks and so the high %ge for Growth partially explains the low %ge of Pay & Perks. However, the choice of “job security” shows a certain degree of “cautiousness” which may be a result of their middle-class upbringing which puts a high value on economic safety.

B.2.4 : Job Satisfaction & B.2.5 : Why Higher Studies?

		Yes (%)		NA(%)
Job Satisfaction	Thoroughly Unsatisfied	1		99
	OK for time being	31		69
	Reasonably Satisfied	33		67
	Satisfied Beyond Expectation	5		95
Why Higher Studies	Improves Job Prospect	22		78
	Default Option- Job Scarce	0		100
	Career in Teaching/Research	39		61
	Any Other			

The response in this section has been very poor – as can be seen, a large majority of the students chose not to respond to these particular queries in the questionnaire. Since the percentage of “NA(response not available)” is so overwhelming, it would be difficult to draw any conclusion from the choices made. In general it can be said that students who have a job seem

to satisfied for the time being (31 + 33 = 64%) and opinion seems to be divided regarding the role of "Higher Studies" between a stepping stone for a better job (22%) or as an introduction to a teaching career (39%).

1) Analysis and Findings for Sections C (C1 & C2)

In this section feedback was solicited from the students regarding two areas which were:-

- i) C1:- Career Development Initiatives taken by the student and
- ii) C2 :- Participated in Career Development Initiative of Institution

Similar to what was done in the UG and the PG(MSc) sections, for this PG (M.Tech) group the feedback in this section, being entirely descriptive in nature was combined across all the departments and three clusters were formed based on similarities of activities. These were

- i) FA(SD) - Formal Activity (Self Development) : Institute's Career Development Initiatives
- ii) SDI - Self Development (Self Initiative) : Student's own Career Development Initiatives
- iii) Suggestions : Included responses which were in the nature of "suggestions".

Since all the feedback received under the category of "Suggestion" have been repeated again in Section D, these have not been considered for the present discussion. The combined feedback after suitable sorting and filtering is given below:-

PG (M.E) - Combined C1 & C2 Items				
Code	Item	Code	Item	
FA(SD)	Attending the International Conferences & Workshops Organized by this University.	SDI(Self development- Individual Effort)	Inspired by lectures of eminent researchers.	
FA(SD)	Different kinds of training classes & technical session helped in career development.		Learnt relevant software.	
SDI(Self development- Individual Effort)	Active committee member (Student committee) of International Conference on Energy Resources & Technologies for Sustainable Development (ICERTSD - 2013).		Organized a number of seminar & workshops.	
	Applied to many Universities for PhD & prepared for interviews.		Organizing Career development courses for the students.	
	Arranged meeting with Bidhannagar Commissioner ate regarding Intelligent Traffic Networks.		Organizing Science fair for the students.	
	Competitive Examination preparation.		Participated in "Research Promotion Workshop" by TIFR.	
	Computer Networking.		Practiced short questions for campus recruitments & other competitive exams.	
	Conference ,Journal & Book chapter publication.		Practiced presentation skill , group discussion etc.	
	E-Learning through different websites.		Research & study regarding betterment of Iron-Ore purification process.	
	Exposure to different Research work.		Self Study of Job books & Magazines.	
	For my Thesis, Worked with MERLIN instrument to determine travelling comfort in Rajarhat roads.		Worked as Teaching Assistant for UG(CST) students.	
<i>SDI(Self development- Individual Effort)</i>			Working as lab assistant.	
<i>FA(SD)Formal Activity - Self Dev - Part of Coursework</i>				

Students across the different groups i.e. UG, PG(M.Sc), PG (M.Tech) and PG (M.E) have attended many International Conferences, Workshops & Seminars arranged by the Institute FA(SD), to gain knowledge and used it for career development. This therefore is a testimony that such meets are regularly held which are appreciated by the students of all groups.

As can be seen from the above chart, the students have adopted various methods to upgrade themselves and enhance their careers. Some are common across groups, for example, i) Organizing workshops ii) Learning relevant Software iii) Publishing articles and iv) Participated in research activity.

Apart from these, the other "Self-Development Activities (SDI)" are quite diverse, for example, "Active Committee member of International Conference", "Computer Networking" and "E-Learning through different websites". Some are also specific to their particular branch for example, "Arranged meeting with Bidhannagar Commissioner ate regarding Intelligent Traffic Networks", "Worked with MERLIN instrument to determine travelling comfort in Rajarhat roads". Therefore, due to the quite varying nature of these "Self Development Activities", it is difficult to recommend a general policy to the Institute to help the students in their career development efforts.

3. Analysis and Findings for Sections D (D1, D2 & D3)

It has been earlier explained that feedback for this section had been arranged in different groups according to different codes (MA, MNA, NCC, ...), representing similar activities or thoughts. These codified groups were further refined through successive iterations and the final list is as follows:-

a. Consolidated List for "MA (Miscellaneous Academic)" is given below which consists of suggestions which are all academically linked.

PG (M.E) Final List for MA			
Code	Item	Code	Item
MA - Miscellaneous Academic	Access to Up- to date technology & software.	MA - Miscellaneous Academic	Idea about various Software's used in industry , like ANSYS ,TEKLA , ABACUS etc .
	Arrange class - exam in every month.		Improve Infrastructure for R & D scholars.
	Arrangement of "Tech - fest".		Improve Lab facilities.
	Coaching for PSU entrance exams.		Increase Scope of Choosing Elective papers.
	Discussion & orientation about the current ongoing research in the World.		Inter Departmental Research facility in PG as well as PhD Scale.
	Exposure to the state of the art technologies , software's.		More faculty & laboratory facilities.
	For Students interested in R&D , there should be more focus on Theory.		More Seminars could be arranged.
	For Students interested in Working in Core technical domain, focus on Practical.		Providing training about writing technical documents.
	Getting opportunity to interact with Industry persons at Conferences / Seminars.		Solving mathematical problems of technical subjects.
	Group Discussions on various topics.		Technical aptitude tests.

The list contains feedback which is so divergent that no similar class of thought could be found among them so that they can be grouped under different headings as was done in the case of the UG group. For example some of the feedback are :- i) Coaching for PSU entrance exams ii) Exposure to the state of the art technologies softwares.iii) More faculty & laboratory facilities iv) Providing training about writing technical documents and v) Technical aptitude tests. As is evident, each is linked to a different stream of thought and no common thread could not be found so that a general set of recommendations can be offered.

b. Consolidated List for “MNA (Miscellaneous Non-Academic)” is given below:-

PG (M.E) Final List for MNA			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MNA - Miscellaneous Non Academic	Art , Music & Sports.	MNA - Miscellaneous Non Academic	More Teacher & Students interaction.
	Friendly interaction between Teachers & students.		Seminars on Life history of eminent persons.
	Institute should organize Career development forums.		Students should first identify their Career path like R&D , Teaching , Civil Services etc. Faculty may then guide them accordingly.
	Mandatory participation in sports & gym.	MNA - Miscellaneous Non Academic	

The above list contains a suggestion that “Institute should organize Career development forums” which is important because this would be immensely help the students in reaching their career goals. However this presupposes that the “Students should first identify their Career path like R&D , Teaching , Civil Services etc.” which means the general goal needs to be identified before expert help can provide guidance to reach the specific target.

c. Consolidated List for “NCC -- New Class/Training/etc for (Knowledge/Career Dev)”

PG (M.E) Final List for NCC			
Code	Item	Code	Item
NCC - New Class/Training/etc for (Knowledge/Career Dev)	Arrange Training programs for Higher Education opportunities, Job oriented or on entrepreneurship.	NCC - New Class/Training/etc for (Knowledge/Career Dev)	English Classes.
	Arranging GDs on various topics.		Program on Communication Skills.
	Dummy technical interviews.		
NCC - New Class/Training/etc for (Knowledge/Career Dev)			

The above list consists of feedback which involves introducing new sessions on topics linked with Career Growth/Development like introducing sessions for i) GDs ii) Technical Interviews and iii) English classes. Particularly these three suggestions have appeared in the feedback almost all the groups and therefore it appears that there is a genuine requirement for such sessions.

d. Consolidated List for “NS -- New System Introduction”

PG (M.E) Final List for NS			
Code	Item	Code	Item
NS - New System /Area	Consult industrialists & ex-students while preparing syllabus.	NS - New System /Area	Evaluation & analysis of Performance of teacher , faculty members by the students.
	Evaluation of teachers by the students.		Teaching Assistants for PG students.
NS - New System /Area			

The above list contains a novel feedback “Consult industrialists & ex-students while preparing syllabus” which is aimed at making the curriculum at par with industry requirements and it seems this has merit. The other two suggestions, one of which suggests evaluation of faculty by students, and the other requests for teaching assignments have already been given by the other groups and so specific discussion is not required.

e. Consolidated List for “ORP - Out Reach(Practical Knowledge Gain)”

This list consists of suggestions regarding establishing contact with the outside professional world in the form of collaborations, competitions, alumni interaction and tie-ups basically to expose the students to the realities of the corporate world. The list is given below:-

PG (M.E) Final List for ORP			
Code	Item	Code	Item
ORP - Out Reach(Practical Knowledge Gain)	Interaction with the Industry in relevant field.	ORP - Out Reach(Practical Knowledge Gain)	Student exchange programs.
	Interactive sessions with Industry Professionals.		Technical Training in Govt. sector.
	Open house interaction with the Industry in relevant field about their requirement & the present market condition.		To arrange a workshop in "Transportation Management" at Rajarhat Municipality.
ORP - Out Reach(Practical Knowledge Gain)			

Each of these ideas have been expressed before by other groups (especially the Undergraduates) and so these may be worthwhile suggestions for consideration by the Institute.

f. Consolidated List for “PC - Placement Cell Activities”

All suggestions in this category relates to the activities of the Placement Cell and these are shown below:-

PG (M.E) Final List for PC			
Code	Item	Code	Item
PC - Placement Cell	Arrange some Career Counseling.	PC - Placement Cell	More Multinational branded company should be called for campusing.
	Arranging for Core Companies to select PG students.		Placement of UG students as Interns on temporary basis with Cos.
	Campus placement opportunities by R&Ds & prestigious teaching institutes for M.E or M.Tech students.		Request Industrial training for the M.E ETCE Students.
	Job opportunities for those willing to do R&D sectors.		Sufficient placement should be given to the M.E students.
PC - Placement Cell			

Since the issue of “Placement” is uppermost in the mind of every student, therefore it is not surprising that almost all of these suggestions have been echoed by the earlier groups expressing a desire for a robust placement system for that particular group. Thus, it was only to be expected that this group - PG(M.E) students have also requested for “Industrial Training” and “Sufficient Placement” as well as for some “Career Counseling”.

g. Consolidated List for “SIC - Systems Improvement (Curriculum)”

All the items in the list given below suggests changes in the curriculum in several ways like i) introducing experimental procedures in the coursework

ii) inclusion of more software iii) incorporating modern technology and iv) having more practical oriented classes. There is a lot of commonality among the feedback given by various groups in this category, along with some suggestions which are specific to their groups like in this case "There should be more practical classes for M.E students and "Arrange Experimental procedures in ME courses also". Examples of "common" ideas are i) More field based study system required ii) Practical oriented problems & Industrial application and iii) Incorporate modern technology in syllabus and these may be worthy of consideration by the Institute.

Some items from the original quite lengthy list is given below :

PG (M.E) Final List for SIC - Systems Improvement (Curriculum)			
Code	Item	Code	Item
SIC - Systems Improvement (Curriculum)	Arrange Experimental procedures in ME courses also.	SIC - Systems Improvement (Curriculum)	Introduce Sessionals on Machine Design & Electrical Drives in PG level.
	Better Scope of Industrial training for IT Students.		Introduction of a compulsory MATLAB course.
	Changing duration of Even Semester.		Laboratory work should be increased for M.E students.
	Each class must be followed by practical session .		More field based study system required.
	Exams can be delayed in even Semesters as time is short.		More Practical lab scale experimental facility.
	Inclusion of more Software into PG syllabus.		Short term projects in 2nd yr under faculty guidance.
	Inclusion of real -life as well as mathematical problems in syllabus.		The syllabus should also include relevant work in that particular domain.
	Incorporate modern technology in syllabus.		There should be more practical classes for M.E students.
SIC - Systems Improvement (Curriculum)			

h. Consolidated List for “SIP - Systems Improvement (Pedagogy)”

PG (M.E) Final List for SIP-Systems Improvement(Pedagogy)			
Code	Item	Code	Item
SIP - Systems Improvement(Pedagogy)	Adopt modern teaching methods.	SIP - Systems Improvement (Pedagogy)	Use practical experience to improve the teaching method.
	Arrangement of Video Lectures by International Personalities.		Using more computer-aided teaching methods.
	The class should be more attractive by using different types of modern learning equipments or prototypes.	<u>SIP - Systems Improvement(Pedagogy)</u>	

The list above contains items regarding improvements in teaching methods, which have mostly been included by other groups in their feedback for this particular category. The items which appear to recur in almost all the group’s suggestion are i) Adopt modern teaching methods and ii) The class should be more attractive by using different types of modern learning equipments or prototypes. Due to the repetitive nature of some suggestions, it seems that there is some merit in them to be considered.

Part IV

Details of Analysis & Findings

of

Postgraduate Students (M. Sc)

A.5.1 : Mode of Selection

Out of a total of 58 M.Sc students, only 62% opted for the feedback and 22 students accounting for 38% of the strength did not participate in this exercise. Therefore in a way the conclusions drawn from this partial set (of only 62% students) may not reflect the true picture.

The placement statistics reveal that only 23% were placed through Campus /Off Campus/Forced Method of Placement and 40% opted for higher studies. These figures suggest that the majority of the MSc students feel the need for higher studies in order to get placed later on.

This is also consistent with "Aim Before Course Completion (B.1)", where 30 students (52%) have opted for research as their possible future vocation. The propensity of these students for further study could also mean that job opportunities are lacking for students completing this particular PG (M.Sc) stream and maybe this could be an issue for the Placement Cell to explore (the extent of job openings at this level) and take adequate measures to equip these students for whatever opportunities exist.

B.2.1 : Preference for Type of Job

Similar to the UG students, these PG (MSc) students also had nine options to grade from and these were i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services viii) Teaching and ix) Any Others.

Among these, the first three 1st choices of the respondents for choosing their future job areas were i) Teaching (41%) ii) R&D (10%) and iii) Core Domain (5%). From this it is quite evident that the "Teaching Profession"

appears to be the most preferred choice for these students followed by a career in the "Research Domain". Interestingly, very few made the choice for "Civil Services (only 2%)" as their 1st preference, unlike the UG students (17% had opted for that service).

However this result (as expressed in B.2.1) is inconsistent with the choice given in the preceding section, "Aim Before Course Completion (B.1)", where 30 students (52 %) have opted for "research" as their possible future vocation.

B.2.2 : Preference for Higher Studies

The feedback indicated that the 1st choice of the responding students for higher studies was in the "Technical" domain (29%) and only 3% opted for higher studies in the Management domain. However the 2nd choice paints the opposite picture (probably on second thoughts), as 29% wanted to take-up Management studies and only 10% opted for further studies in the Technical domain.

B.2.3 : Organization Preference Based On

Regarding their preference for choosing an organization, the students had six options to choose from which were, i) Branding ii) Pay & perks iii) Growth iv) Congenial Place v) Job Security and vi) Logistics.

The preferred 1st choice regarding the preference for choosing an organization was the opportunity for "Growth" (28%) and the same 28% also opted for an organization which provides "Job Security". Surprisingly there were no options (0%) for "Brand", "Congenial Place (0%)" and "Logistics (0%)". Since there were some who abstained from making any

choices, in each of these options (e.g. 12% of the PG students did not give any preference for "Growth"), it may affect the accuracy of the findings.

Interestingly, among the UG students, the 1st choice for 33% of the students was "Growth" which was far more than the other 1st preferences for "Branding (13%)" and "Job Security (13%)". In this respect the findings in the case of the UG as well as the PG (M.Sc) students are somewhat similar.

B.2.4 : Job Satisfaction & B.2.5 : Why Higher Studies?

		Yes (%)		NA(%)
Job Satisfaction	Thoroughly Unsatisfied	10		88
	OK for time being	26		74
	Reasonably Satisfied	12		88
	Satisfied Beyond Expectation	2		98
Why Higher Studies	Improves Job Prospect	2		98
	Default Option- Job Scarce	3		97
	Career in Teaching/research	38		62
	Any Other			
	NA --> Not Responded			

In view of the very large number of students who did not provide any feedback (NA - Not Responded), for these two sections, the results received belong to a minority group and hence it would be improper to draw any conclusion as they would not be reflecting the true picture.

2. Analysis and Findings for Sections C (C1 & C2)

In this section feedback was solicited from the students regarding two areas which were:-

- i) C1:- Career Development Initiatives taken by the student and
- ii) C2 :- Participated in Career Development Initiative of Institution

Similar to what was done in the UG section, for this PG (M.Sc) group also the feedback in this section, being entirely descriptive in nature was combined across all the departments and three clusters were formed based on similarities of activities. These were

- i) FA(SD) - Formal Activity (Self Development) : Institute's Career Development Initiatives
- ii) SDI - Self Development (Self Initiative) : Student's own Career Development Initiatives
- iii) Suggestions : Included responses which were in the nature of "suggestions"

Further, since the number of students were only 58 (much less than the UG group), the feedback pertaining to the above three codes were combined and shown below :

C1 & C2 M.Sc CHEMISTRY(Sorted on Code)					
Dept	Code	Item	Dept	Code	Item
C2 FP 02	FA(SD)	Project & Thesis work.	C1 FP 02	SDI	Qualifying NET (L. S) Exam.
C1 Chem 01	SDI	Also prepared for GRE & TOEFL.	C1 Chem 16	SDI	Research work on Electrochemistry.
C1 Chem 01	SDI	Enrolled in summer internship in IACS.	C2 Chem 02	SDI	Spoken English Program.
C2 Chem 04	SDI	General seminars, projects seminar & all other Science & Technology seminars.	C1 Chem 09	SDI	To appear in National eligibility test.
C1 Geo 08	SDI	Notes & other study materials from other Institute's students.	C2 Chem12	Suggn	Campus placement oppertunities for M.Sc.
C2 Chem 01	SDI	Participated in many seminars & competitions.	C2 Chem 13	Suggn	Campus placement oppertunities for M.Sc.

Comparing this list with that of the UG group, it can be seen that all the above items have been mentioned there except "Qualifying NET (L. S) Exam" and "Research work on Electrochemistry." both which are "Self Development Initiatives" undertaken by the M.Sc students. Although it is difficult to design a general strategy to help these students in their "self-development" efforts, yet some common programs like i) Practicing Spoken English ii) Coaching for GRE/TOEFL/ could be initiated. In view of the "Suggestion→Campus placement opportunities for M.Sc. students" enhanced Placement Support (in view of the paucity of job openings after these PG level courses) could also be considered. .

In section B.2.1 (*Preference for Type of Job*), 41% of the M.Sc students had mentioned "Teaching" as their 1st preference. Considering this fact, the Institute may also think of providing these PG students opportunity to teach in the UG classes.

3. Analysis and Findings for Sections D (D1, D2 & D3)

It has been earlier explained that feedback for this section had been arranged in different groups according to different codes (MA, MNA, NCC, ...), representing similar activities or thoughts. Since the number of such feedback received was small as compared to the UG portion, the individual codes were not subdivided into sub-codes.

a. Consolidated List for “MA (Miscellaneous Academic)” is given below which consists of suggestions which are all academically linked.

MA - Miscellaneous Academic			
Code	Item	Code	Item
MA - Miscellaneous Academic	Involvement of every student in discussion of a subject.	MA - Miscellaneous Academic	Participate in various Competitions, Surveys , Seminars
	Exposure to National Seminars.		Provide better instrumentation in Science Labs.
	Improvement of PG Labs.		The faculty should actively pursue challenging Research topics, relevant in today's scenario.
	Increase the number of faculties.		Update about different research work.
	More Seminars should be organised.		Well Equipped Lab.
	More Research work.		
			MA - Miscellaneous Academic

In this list the focus is on i) betterment of lab facilities ii) increasing faculty strength iii) stress on holding Seminars and emphasis on Research work.

b. List for “MNA (Miscellaneous Non-Academic)” is given below:-

MNA - Miscellaneous Non Academic			
Code	Item	Code	Item
MNA	Improvement of lab equipment.	MNA	Recruit regular faculties in proper specialization.
	Keep students away from faculty politics.		Teachers should be more friendly.
	Must stop partiality by Teachers.		
		MNA - Miscellaneous Non Academic	

The issue of upgrading lab facilities and additional faculty deployment is mentioned in this section also apart from some suggestion regarding the conduct of teachers.

a. List for “NCC -- New Class/Training/etc for (Knowledge/Career Dev)” and “NCH - New Class/Training/etc for (Higher Studies)”

b.

<u>NCC - New Class/Trng/etc for (Knowledge/Career Dev)</u>				
<i>Code</i>	<i>Item</i>		<i>Code</i>	<i>Item</i>
NCC	A weekly Sessions for NET & GATE.		NCC	Discuss about problem & solution of Competetive examinations (NET , GATE ,IISC ,BARK).
NCC	Career advancement coaching , Mock test for Campus interview.		NCC	Grooming class, Career coaching class , Advance course should be essential.

The feedback under this heading (i.e introduction of New Classes) is focused on introducing “technical classes” (for example for NET/GATE examinations), having Grooming Classes and conducting “Mock tests” for Campusing. In this sense it is almost a replication of the feedback given by the UG students except that they have not mentioned the need for having “Training for Spoken English”. Probably, at this level, the need for being thorough in “Technical” matters is more important than being fluent in speaking English.

d. List for “NS -- New System Introduction”

NS - New System /Area				
<i>Code</i>	<i>Item</i>		<i>Code</i>	<i>Item</i>
NS	External correction of papers.		NS	Opportunity to take classes for Undergraduates.
	Feedback by students & assesments of teachers.			

As in the case of the feedback from UG students, the feedback under this heading from the PG students are innovative (like External evaluation of answer scripts) which may have been prompted by the desire to have unbiased correction of answer scripts. The feedback regarding “assessments of teachers through student feedback” surprisingly echoes a similar sentiment expressed by the UG students. Since the nature of the feedback is same across two different sets of student bodies, it may be worthwhile for the authorities to examine this issue.

e. Consolidated List for “ORP - Out Reach (Practical Knowledge Gain)”

ORP - Out Reach(Practical Knowledge Gain)				
<i>Code</i>	<i>Item</i>		<i>Code</i>	<i>Item</i>
ORP	Forming Alumni Association of Science departments.			

This list consists of suggestions regarding establishing contact with the outside professional world and the only feedback in this section is to form “Alumni associations” although there are other ways to reach out to the Corporate world as mentioned by the UG students (like tie-ups with premier institutes). The feedback seems to have ignored those routes.

f. Consolidated List for "PC - Placement Cell Activities"

PC - Placement Cell Activities				
Code	Item		Code	Item
PC	Campus Interview of all Departments.		PC	More companies should be brought for campus interview.
PC	Improvement of Placement System for M.Sc students.		PC	Proper Placement Cell for all Science courses.
PC	Involve the Science department in placement.		PC	Reactivate nearly defunct placement cell.
PC	More campusing for teaching jobs.			

The feedback in this section reflects the anxiety of the PG section regarding upgrading the present support system and more opportunity to choose "Teaching jobs".

g. Consolidated List for "SIC - Systems Improvement (Curriculum)"

SIC - Systems Improvement (Curriculum)				
Code	Item		Code	Item
SIC	Increase the time period of individual classes.		SIC	Make students familiar with current research trends.
SIC	An Industrial Visit.		SIC	Projects in every semester.
SIC	Have more Practical Works , Field visit , Projects work etc.		SIC	There should be some courses on Software (like JAVA , C++ , etc).
SIC	Learning in NET , GATE pattern.		SIC	To include project work in each semester.

Unlike the numerous feedback received from the UG students under this heading, the points mentioned by the PG students are far less in number but the substance remains the same – more practical's, field visits, projects and introduction of software courses.

A.5.1 : Mode of Selection

Out of a total of 58 M.Sc students, only 62% opted for the feedback and 22 students accounting for 38% of the strength did not participate in this exercise. Therefore in a way the conclusions drawn from this partial set (of only 62% students) may not reflect the true picture.

The placement statistics reveal that only 23% were placed through Campus /Off Campus/Forced Method of Placement and 40% opted for higher studies. These figures suggest that the majority of the MSc students feel the need for higher studies in order to get placed later on.

This is also consistent with "Aim Before Course Completion (B.1)", where 30 students (52%) have opted for research as their possible future vocation. The propensity of these students for further study could also mean that job opportunities are lacking for students completing this particular PG (M.Sc) stream and maybe this could be an issue for the Placement Cell to explore (the extent of job openings at this level) and take adequate measures to equip these students for whatever opportunities exist.

B.2.1 : Preference for Type of Job

Similar to the UG students, these PG (MSc) students also had nine options to grade from and these were i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services viii) Teaching and ix) Any Others.

Among these, the first three 1st choices of the respondents for choosing their future job areas were i) Teaching (41%) ii) R&D (10%) and iii) Core Domain (5%). From this it is quite evident that the "Teaching Profession"

appears to be the most preferred choice for these students followed by a career in the "Research Domain". Interestingly, very few made the choice for "Civil Services (only 2%)" as their 1st preference, unlike the UG students (17% had opted for that service).

However this result (as expressed in B.2.1) is inconsistent with the choice given in the preceding section, "Aim Before Course Completion (B.1)", where 30 students (52 %) have opted for "research" as their possible future vocation.

B.2.2 : Preference for Higher Studies

The feedback indicated that the 1st choice of the responding students for higher studies was in the "Technical" domain (29%) and only 3% opted for higher studies in the Management domain. However the 2nd choice paints the opposite picture (probably on second thoughts), as 29% wanted to take-up Management studies and only 10% opted for further studies in the Technical domain.

B.2.3 : Organization Preference Based On

Regarding their preference for choosing an organization, the students had six options to choose from which were, i) Branding ii) Pay & perks iii) Growth iv) Congenial Place v) Job Security and vi) Logistics.

The preferred 1st choice regarding the preference for choosing an organization was the opportunity for "Growth" (28%) and the same 28% also opted for an organization which provides "Job Security". Surprisingly there were no options (0%) for "Brand", "Congenial Place (0%)" and "Logistics (0%)". Since there were some who abstained from making any

choices, in each of these options (e.g. 12% of the PG students did not give any preference for "Growth"), it may affect the accuracy of the findings.

Interestingly, among the UG students, the 1st choice for 33% of the students was "Growth" which was far more than the other 1st preferences for "Branding (13%)" and "Job Security (13%)". In this respect the findings in the case of the UG as well as the PG (M.Sc) students are somewhat similar.

B.2.4 : Job Satisfaction & B.2.5 : Why Higher Studies?

		Yes (%)		NA(%)
Job Satisfaction	Thoroughly Unsatisfied	10		88
	OK for time being	26		74
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	Any Other			
	NA --> Not Responded			

In view of the very large number of students who did not provide any feedback (NA - Not Responded), for these two sections, the results received belong to a minority group and hence it would be improper to draw any conclusion as they would not be reflecting the true picture.

2. Analysis and Findings for Sections C (C1 & C2)

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In section B.2.1 (*Preference for Type of Job*), 41% of the M.Sc students had mentioned "Teaching" as their 1st preference. Considering this fact, the Institute may also think of providing these PG students opportunity to teach in the UG classes.

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SIC	Learning in NET , GATE pattern.		SIC	To include project work in each semester.

Unlike the numerous feedback received from the UG students under this heading, the points mentioned by the PG students are far less in number but the substance remains the same – more practical's, field visits, projects and introduction of software courses.

Part V

Details of Analysis & Findings

of

Postgraduate Students (M. B.A)

1. Analysis and Findings for PG (M.B.A) Sections A&B

Summary of M.B.A (A & B Sections)									
	Total M.B.A = 15								
		No	% to Total						
Mode of Selection (A.5.1)	Campus	0	0	Preference for Type of Job (B.2.1)		%1st	%2nd	%None	
	Off Campus	5	33		Core Domain	0	0	60	
	Forced/Dir	0	0		Analytics	7	0	60	
	NA	8	53		ITES	7	0	53	
A.5.2	Higher Study	0	0		Multi-Disciplinary	0	13	60	
	Business	2	13		R&D	7	7	53	
Aim Before Course Completion (B.1)	Job	10	67		Consultancy	7	0	60	
	Research	1	7		Civil Services	27	7	47	
	Self-Employment	0	0		Teaching	13	0	60	
	NA	4	27			%1st	%2nd	%None	
Organization Preference based on (B.2.3)		%1st	%2nd		None	Higher Study In (B.2.2)			
	Branding	13	0		40	Technical	13	13	73
	Pay & Perks	0	20	47	Management	27	0	67	
	Growth	27	0	40		Yes(%)	NA(%)		
	Congenial Place	0	20	47	Thoroughly Unsatisfied	7	93		
	Job Security	20	7	47	OK for time being	20	80		
	Logistics	0	7	47	Reasonably Satisfied	7	93		
Why Higher Studies (B.2.5)		Yes(%)	NA(%)		Satisfied Beyond Expectation	0	100		
	Improves Job Prospect	7	93						
	Default Option- Job Scarce	0	100						
	Career in Teaching/research	0	100						

A.5.1 & A.5.2 : Mode of Selection & Higher Study

The placement statistics reveal that 33 % were placed through /Off Campus/Forced Method of Placement. Since none were placed through regular "Campus Placement" activity, this suggests that probably this facility was not extended to this section of the PG students. It is not surprising that none opted for higher studies since the next level after PG(M.B.A) would be a doctoral course in Management and students may have preferred to put in a few years of service before going in for the doctoral level. However 13% (i.e 2 students) have opted for entrepreneurship which eans that they have tried to put into practice what they have learnt in the theory classes of Business Management.. However 53% (i.e just over half the students) preferred not to participate in the feedback in this category which would affect the accuracy of the comments made earlier.

B.1 : Aim before Course Completion

Aim Before Course Completion (B.1)	Job	10	67
	Research	1	7
	Self-Employment	0	0
	NA	4	27

The figures show that almost two thirds of the students have indicated their preference for "Job" and only 7% (1 student) have opted for research. This is similar to the UG group where a large majority (69%) had opted for a job compared to 22% for research. However all the other PG groups have expressed a preference for research work. M.Sc,(52%), M.Tech(53%) & M.E(60%).

B.2.1 : Preference for Type of Job

Preference for Type of Job (B.2.1)		%1st	%2nd	%None
	Core Domain	0	0	60
	Analytics	7	0	60
	ITES	7	0	53
	Multi-Disciplinary	0	13	60
	R&D	7	7	53
	Consultancy	7	0	60
	Civil Services	27	7	47
	Teaching	13	0	60

Similar to the UG, PG (M.Sc), PG(M.Tech), and PG (M.E) students, the PG(MBA) students also had nine options to grade from and these were i) Core Domain ii) Analytics iii) ITES iv) Multi-Disciplinary v) R & D vi) Consultancy vii) Civil Services viii) Teaching and ix) Any Others. Unfortunately along with the responses in each of these categories there has been many cases of students who have chosen NOT to respond (% None) - more than 50% in each category, as is evident from the above chart. Thus the accuracy of the conclusions based on the choices as given above may be affected.

From the above chart it can be seen that among the 1st choices, responses were i) "Civil Services(27%)" and ii) Teaching (13%). It is to be noted that the 1st choice of the majority of the students is "Civil Services" which is a distinct departure from the choices expressed by students from any of the other sections i.e. UG, PG(M.Sc, M.E & M.Tech) as discussed earlier.

For 2nd choice, the majority of responses were for "Multi-Disciplinary (13%), which is also much different from those of the other groups.

B.2.2 : Preference for Higher Studies

Higher Study In (B.2.2)		%1st	%2nd	%None
	Technical	13	13	73
	Management	27	0	67

Expectedly the majority of students (27%) have expressed preference for “Higher Studies in Management” as their 1st choice. However, some (13%) have even opted for “Technical” stream and this choice after PG(MBA) is difficult to understand. In this category also a large majority, about 70% of the PG(MBA) students have chosen not to participate in the feedback process which means that the feedback received in this category cannot be termed as representative of the students.

B.2.3 : Organization Preference Based On

Organization Preference based on (B.2.3)		%1st	%2nd	None
	Branding	13	0	40
	Pay & Perks	0	20	47
	Growth	27	0	40
	Congenial Place	0	20	47
	Job Security	20	7	47
	Logistics	0	7	47

Regarding their preference for choosing an organization, the students had six options to choose from which were, i) Branding ii) Pay & Perks iii) Growth iv) Congenial Place v) Job Security and vi) Logistics.

Among the 1st choices, responses were → i) Growth (27%) ii) Job Security (20%) and iii) Branding (13%). It is interesting to know that among all the groups (i.e UG, M.Sc, M.E & M.Tech), "Growth" followed by "Job Security" are the common denominators as 1st choice. However, "Branding" occupies third position in the MBA group which is a departure from the other choices.

B.2.4 : Job Satisfaction & B.2.5 : Why Higher Studies ?

Job Satisfaction (B.2.4)		Yes(%)		NA(%)
	Thoroughly Unsatisfied	7		93
	OK for time being	20		80
	Reasonably Satisfied	7		93
	Satisfied Beyond Expectation	0		100

Why Higher Studies (B.2.5)		Yes(%)		NA(%)
	Improves Job Prospect	7		93
	Default Option- Job Scarce	0		100
	Career in Teaching/research	0		100

The response in this section has been very poor – as can be seen, a very large majority of the students chose not to respond to these particular queries in the questionnaire. Since the percentage of “NA (response not available)” is so overwhelming (around 80%), this means that the figures are not representative of the total MBA population. However, in general it can be said that 27% (20 + 7) of the students who have a job seem to be satisfied for the time being. There also seems to be an unanimous opinion that “Higher Studies” improves job prospects.

2. Analysis and Findings for Sections C (C1 & C2)

In this section feedback was solicited from the students regarding two areas which were:-

- i) C1:- Career Development Initiatives taken by the student and
- ii) C2 :- Participated in Career Development Initiative of Institution

Similar to what was done in the UG and the PG(MSc , M.Tech, & ME) for this PG(M.BA) group also the feedback in this section, being entirely descriptive in nature was combined across all the departments and three clusters were formed based on similarities of activities. These were

- i) FA(SD) - Formal Activity (Self Development) : Institute’s Career Development Initiatives
- ii) SDI - Self Development (Self Initiative) : Student’s own Career Development Initiatives
- iii) Suggestions : Included responses which were in the nature of “suggestions”

Since all the feedback received under the category of “Suggestion” have been repeated again in Section D, these have not been considered for the present discussion. The combined feedback after suitable sorting and filtering is given below :

C1 & C2 P.G (MBA)					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
C1 MBA 10	SDI	Conducting Entrepreneurship Seminar.	C2 MBA 10	SDI	Seminar on Real market Scenario.
C1 MBA 05	SDI	Done SAP - SD.	C2 MBA 08	FA(SD)	Various competitions & the Seminars organized by the Institute.
C1 MBA 07	SDI	Organized entrepreneurship week in collaboration with NEN.	FA(SD)		Formal Activity - Self Dev - Part of Coursework
SDI	Self Development (Self Initiative)				

There is nothing new in the manner the MBA students have sought to upgrade themselves for a better career in the sense that the methods undertaken by them (Conducting and Organizing Seminars, Attending various competitions organized by the Institute) except for a lone student opting to undergo a course on SAP – SD. Since the total number of students are so less (only 15, least among all the PG groups), the feedback expressed by them are so mundane – devoid of anything remarkable, (also handicapped by quite a large percentage not responding), it is difficult to give it the same weight age as the feedback of other groups.

3. Analysis and Findings for Sections D (D1, D2 & D3)

It has been earlier explained that feedback for this section had been arranged in different groups according to different codes (MA, MNA, NCC, ...), representing similar activities or thoughts. Since the number of such feedback received was the smallest among all the groups (UG and PG), , the individual codes were not subdivided into sub-codes as was done for the UG section.

a. **Consolidated List for “MA (Miscellaneous Academic)” is given below which consists of suggestions which are all academically linked.**

<u>MA - Miscellaneous Academic</u>						
<i>Dept</i>	<i>Code</i>	<i>Item</i>		<i>Dept</i>	<i>Code</i>	<i>Item</i>
D1 MBA 10	MA	Conducting live Project.				
D1 MBA 14	MA	Exposure to the Practicality of the Theory learnt.		D1 MBA 08	MA	Organizing more seminars.

There are only three suggestions (or rather feedback) in this category out of which two stresses on “Practicality of Theory learnt” and the other deals with “Organizing more Seminars”. These are nothing new and have found mention in the earlier UG and PG sections – so in essence the feedback is devoid of anything innovating and thought provoking.

b. Consolidated List for "MNA (Miscellaneous Non-Academic)" is given below:-

MNA - Miscellaneous Academic					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D3 MBA 07	MNA		D3 MBA 07	MNA	Student - Teacher ratio should be improved.
D1 MBA 07	MNA	Needs development in Infrastructure.			

There is only one feedback in this category which is worth serious thought which is "Making international books available in the library". Since such quality books are a MUST for Management (or any other area), this suggestion may be considered.

c. List for "NCC - New Class/Training/etc for (Knowledge/Career Development)"

NCC - New Class/Trng/etc for (Knowledge/Career Dev)					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D1 MBA 14	NCC	Classroom training.	D1 MBA 14	NCC	Personal grooming.

There are only two suggestions in this category which suggest more "Classroom training" and the need for "Personal grooming" and both of these are mere repetitions of the feedback received in this category in the UG and PG groups.

d. Consolidated List for "ORP-Out Reach(Practical Knowledge Gain)"

ORP - Out Reach (Practical Knowledge Gain)					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D3 MBA 07	ORP	Increase in visiting Faculty from High Graded Institutes.	D1 MBA 07	ORP	Tie -up with Multinational Companies.
D1 MBA 08	ORP	More interactions with corporate.			

This list consists of suggestions regarding establishing contact with the outside professional world in the form of i) Visiting faculty and ii) More Corporate interaction through tie-ups. Incidentally the feedback in this category are identical with those received from the UG and PG (ME, M.Tech & M.Sc) group and so no suggestions or comments appropriate for consideration by the Institute can be made.

e. Consolidated List for "PC - Placement Cell Activities"

<u>Placement Cell</u>					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D1 MBA 07	PC	Stronger Training & Placement cell.			

All suggestions in this category relates to the activities of the Placement Cell and there is only one feedback which is "Campus placement system should be strong" and this has been repeated in the feedback received from other groups in this category.

f. Consolidated List for “SIC - Systems Improvement Curriculum)”

SIC - Systems Improvement(Curriculum)					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D2 MBA 07	SIC	Include Topics as in International Universities.	D3 MBA 05	SIC	Should focus on implementation rather than bookish knowledge.
D2 MBA 07	SIC	Job oriented syllabus.	D2 MBA 08	SIC	Stress on real life achievers of management field.
D3 MBA 14	SIC	More involvement of the practical field giving less stress on the theories.	SIC - Systems Improvement(Curriculum)		

The feedback in this category is aimed for a change in the curriculum and there are two suggestions which are worth considering as they are likely to enhance the quality of the management education imparted in the Institute. These are “Including Topics as in International Universities” and “Giving real life examples of Achievers in the Management field”. Including the story of such remarkable achievers like Iacocca, Jack Welch, Steve Jobs and our own Ratan Tata as well as Dhirubhai Ambani should set a stimulating example to the students.

g. Consolidated List for “SIP - Systems Improvement (Pedagogy)”

SIP - Systems Improvement (Pedagogy)					
<i>Dept</i>	<i>Code</i>	<i>Item</i>	<i>Dept</i>	<i>Code</i>	<i>Item</i>
D3 MBA 14	SIP	Projector study.	D3 MBA 08	SIP	The teaching process interactive rather than a one way process.

As in the feedback received in the most of the other categories, the two suggestions given here have also nothing new to offer and they are only a repetition of those given in the other groups in this category.

ANNEXURES

ANNEXURE - 1
(Blank Data Entry Form)

Tracers' Study for Career Prospecting of BESUS Students

Feed-back / Response Survey for 2013 Pass-out students.

Background :

BESUS being one of the premier engineering institutes for engineering education in the country has been maintaining the heritage of quality engineering students serving across all spheres of the society since more than 158 years. The recent time has been an era of changing technology, changing production and manufacturing process, changing management practices, changing life style and changing economic and social order. Such imminent changes demand continuous review of the prevalent mode of teaching learning system, activities beyond curriculum, professional grooming of students and newer approaches for career prospecting to optimally grab the emerging opportunity and avenues. In this background, the Project on Tracers' Study for Career Prospecting of BESUS students has been initiated by the University under ongoing TEQIP Programme with the broad objective of tracing the career path of passed-out students of the University, so as to ascertain the specific needs of the professional life, which can be attempted to the plugged in partially or fully, for the benefit of both current as well as passed-out students of the University by way of bringing in required academic and administrative reforms. This Feed-back / Response Survey from the latest batch of students of the University has been conceived as a part of this activity.

Guidelines for the Respondents :

- Your inputs are important and vital for the success of this endeavour.
- Please take your time to fill-in the Survey Questionnaire with your pre-meditated, honest, open, free and frank opinion and response.
- Information provided by you would be used only for the purpose of the project and confidentiality of the same would be maintained.
- Please fill in all four sections of the Questionnaire (A – Personal Profile; B- Career Aspirations; C- career Prospecting Initiatives and D – Your Suggestions)
- Provide your latest and permanent contact details in Personal Profile Section -you are likely to be contacted in future as well.
- Put your options by providing a tick in the Box and put Numerical in the Circles provided in the relevant sections.
- In case you have any query related to the questionnaire – please drop a mail to hodhrm@becs.ac.in. You may also use the same mail-id to subsequently share any other pertinent information relevant to this project

Thanks for your support and cooperation : Please start filling-in the Questionnaire.

A. Personal Profile									
A.1	NAME (CAPITALS ONLY)	(Surname)	(First name)	(Middle Name)	University Registration Number (BESUS)				
A.2	Email	UG / PG		A.3	Mobile No	A.2			
A.4.1	Course at BESU (Please Tick)	B.E. / M.E. / M.Tech. / M.Sc. / MBA		A.4.2	Stream / Specialisation				
A.5	Current Engagement (Tick for options below and give details as required)								
A.5.1	Job	A.5.1.1	Mention Name of the Company you are working for	A.5.1.3	Mode of Selection for the Job (Pls. Tick)	Campus Placement	Off-Campus Recruitment	Forced Applications / Direct Recruitment	Any Other (Pls. Mention)
		A.5.1.2	Your current Designation / Role						
A.5.2	Higher studies	A.5.2.1	Mention Name of the Course you are pursuing	A.5.2.3	Mode of Admission (Pls. Tick)		Through GATE	Through CAT	Any Other (Pls. Mention)
		A.5.2.2	Mention name of the institute you are studying at present						
A.5.3	Self-Employment <input type="checkbox"/>	A.5.3.1	Nature and type of Business	A.5.3.2	Family Business <input type="checkbox"/> First-Generation Entrepreneur <input type="checkbox"/>	(Pls. Tick)	A.5.3.3	New Start-Up (State the present stage)	

B. Career Aspirations											
B.1	What has been your aspiration regarding your career prior to completion of course at BESU (Pls. Tick)					Job	Higher Studies / Research	Self Employment	Any Other (Pls. Mention)		
	Working in core technical domain	Working for Analytics	Working for IT Enabled Services	Working in Multi-disciplinary areas	Working in R & D						
B.2	What would be your preference for future career (Tick for options below)										
B.2.1	For a job (Rate 1-8 in order of preference)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Working for Consultancy Services	Civil Services	Teaching	Any other (Pls. Mention)	
B.2.2	For Higher Studies (Rate 1-3 in order of preference)	<input type="radio"/>	In Technical Areas <input type="radio"/>	In Management <input type="radio"/>	Any Other (Pls. mention) <input type="radio"/>						
B.2.3	What would be your criteria for rating an organisation to work with (Rate 1-7 in order of preference)	<input type="radio"/>	Branding <input type="radio"/>	Pay and Perks <input type="radio"/>	Scope for learning and growth <input type="radio"/>	Congential working environment <input type="radio"/>	Job Security <input type="radio"/>	Logistics (Location etc) <input type="radio"/>	Any other (Pls. Mention) <input type="radio"/>		
B.2.4	How do you estimate the gap between your career aspirations and your current job engagement (For those who are placed in a job) Pls. Tick.	Thoroughly unsatisfied, looking for immediate change <input type="radio"/>					O. K. for the time being. <input type="radio"/>	Reasonably Satisfied <input type="radio"/>	Satisfied beyond expectations (Pls. elaborate) <input type="radio"/>		
B.2.5	Why have you opted for higher studies in a professional course (For those pursuing higher studies) Pls. Tick.	Higher studies improve job prospect <input type="radio"/>					As a default option in job-scarce market <input type="radio"/>	Serious about a career in teaching and/or research <input type="radio"/>	Higher Studies improve career prospects in any job <input type="radio"/>	Any other (Pls. Mention) <input type="radio"/>	
Signature of Respondent							Date				

Tracers' Study Response Sheet Sl. No. Date Code No. (Not to be filled-in by Respondents) Page | 3 of 4

C. Career Prospecting Initiatives	
C.1	Mention any career development initiatives that you had taken on your own during your tenure as student at BESUS
C.2	Mention any career development initiatives of the Institute which you feel have been useful for you.
D. Your Suggestions	
D.1	Suggest initiatives that could be taken by the University beyond curriculum during the studentship which could have positive impacts on career development of the students.
D.2	Suggest any curricular reform in the University that you feel would improve the career prospects for the students.
D.3	Suggest any modification in the teaching -learning method that you feel would improve the career prospects for the students.
Signature of Respondent	
Date	

Tracers' Study Response Sheet Sl. No. Date Code No. (Not to be filled-in by Respondents) Page | 4 of 4

Tracers' Study for Career Prospecting of BESUS Students

Feed-back / Response Survey for 2013 Pass-out students.

Background :

BESUS being one of the premier engineering institutes for engineering education in the country has been maintaining the heritage of quality engineering students serving across all spheres of the society since more than 158 years. The recent time has been an era of changing technology, changing production and manufacturing process, changing management practices, changing life style and changing economic and social order. Such imminent changes demand continuous review of the prevalent mode of teaching learning system, activities beyond curriculum, professional grooming of students and newer approaches for career prospecting to optimally grab the emerging opportunity and avenues. In this background, the Project on Tracers' Study for Career Prospecting of BESUS students has been initiated by the University under ongoing TEQIP Programme with the broad objective of tracing the career path of passed-out students of the University, so as to ascertain the specific needs of the professional life, which can be attempted to the plugged in partially or fully, for the benefit of both current as well as passed-out students of the University by way of bringing in required academic and administrative reforms. This Feed-back / Response Survey from the latest batch of students of the University has been conceived as a part of this activity.

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- Please fill in all four sections of the Questionnaire (A – Personal Profile; B- Career Aspirations; C- career Prospecting Initiatives and D – Your Suggestions)
- Provide your latest and permanent contact details in Personal Profile Section -you are likely to be contacted in future as well.
- Put your options by providing a tick in the Box and put Numerical in the Circles provided in the relevant sections.
- In case you have any query related to the questionnaire – please drop a mail to hodhrm@becs.ac.in. You may also use the same mail-id to subsequently share any other pertinent information relevant to this project

Thanks for your support and cooperation : Please start filling-in the Questionnaire.

A. Personal Profile									
NAME (CAPITALS ONLY)		(Surname)		(First name)		(Middle Name)		University Registration Number (BESUS)	
A.1								A.2	
A.2	Email	UG / PG		A.3		Mobile No			
A.4.1	Course at BESU (Please Tick)	B.E. / M.E. / M.Tech. / M.Sc. / MBA		A.4.2		Stream / Specialisation			
A.5	Current Engagement (Tick for options below and give details as required)								
A.5.1	Job	A.5.1.1	Mention Name of the Company you are working for	A.5.1.3	Mode of Selection for the Job (Pls. Tick)	Campus Placement	Off-Campus Recruitment	Forced Applications / Direct Recruitment	Any Other (Pls. Mention)
		A.5.1.2	Your current Designation / Role						
A.5.2	Higher studies	A.5.2.1	Mention Name of the Course you are pursuing	A.5.2.3	Mode of Admission (Pls. Tick)		Through GATE	Through CAT	Any Other (Pls. Mention)
		A.5.2.2	Mention name of the institute you are studying at present						
A.5.3	Self-Employment <input type="checkbox"/>	A.5.3.1	Nature and type of Business	A.5.3.2	Family Business <input type="checkbox"/> First-Generation Entrepreneur <input type="checkbox"/>				New Start-Up (State the present stage)
					(Pls. Tick)				
Signature of Respondent							Date		

B. Career Aspirations											
B.1	What has been your aspiration regarding your career prior to completion of course at BESU (Pls. Tick)					Job	Higher Studies / Research	Self Employment	Any Other (Pls. Mention)		
	Working in core technical domain	Working for Analytics	Working for IT Enabled Services	Working in Multi-disciplinary areas	Working in R & D						
B.2	What would be your preference for future career (Tick for options below)										
B.2.1	For a job (Rate 1-8 in order of preference)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Working for Consultancy Services	Civil Services	Teaching	Any other (Pls. Mention)	
B.2.2	For Higher Studies (Rate 1-3 in order of preference)	<input type="radio"/>	In Technical Areas <input type="radio"/>	In Management <input type="radio"/>	Any Other (Pls. mention) <input type="radio"/>						
B.2.3	What would be your criteria for rating an organisation to work with (Rate 1-7 in order of preference)	<input type="radio"/>	Branding <input type="radio"/>	Pay and Perks <input type="radio"/>	Scope for learning and growth <input type="radio"/>	Congenial working environment <input type="radio"/>	Job Security <input type="radio"/>	Logistics (Location etc) <input type="radio"/>	Any other (Pls. Mention) <input type="radio"/>		
B.2.4	How do you estimate the gap between your career aspirations and your current job engagement (For those who are placed in a job) Pls. Tick.	<input type="checkbox"/>					O. K. for the time being. <input type="checkbox"/>	Reasonably Satisfied <input type="checkbox"/>	Satisfied beyond expectations (Pls. elaborate) <input type="checkbox"/>		
B.2.5	Why have you opted for higher studies in a professional course (For those pursuing higher studies) Pls. Tick.	<input type="checkbox"/>					Higher studies improve job prospect <input type="checkbox"/>	As a default option in job-scarce market <input type="checkbox"/>	Serious about a career in teaching and/or research <input type="checkbox"/>	Higher Studies improve career prospects in any job <input type="checkbox"/>	Any other (Pls. Mention) <input type="checkbox"/>
Signature of Respondent							Date				

Tracers' Study Response Sheet Sl. No. Date Code No. (Not to be filled-in by Respondents) Page | 3 of 4

C. Career Prospecting Initiatives	
C.1	Mention any career development initiatives that you had taken on your own during your tenure as student at BESUS
C.2	Mention any career development initiatives of the Institute which you feel have been useful for you.
D. Your Suggestions	
D.1	Suggest initiatives that could be taken by the University beyond curriculum during the studentship which could have positive impacts on career development of the students.
D.2	Suggest any curricular reform in the University that you feel would improve the career prospects for the students.
D.3	Suggest any modification in the teaching -learning method that you feel would improve the career prospects for the students.
Signature of Respondent	
Date	

Tracers' Study Response Sheet Sl. No. Date Code No. (Not to be filled-in by Respondents) Page | 4 of 4

ANNEXURE - 1 (A)
(Sample of a Filled -up -Form)

Tracers' Study for Career Prospecting of BESUS Students

Feed-back / Response Survey for 2013 Pass-out students.

Background :

BESUS being one of the premier engineering institutes for engineering education in the country has been maintaining the heritage of producing quality students serving across all spheres of the society since more than 158 years. The recent time has been an era of changing technology, changing production and manufacturing process, changing management practices, changing life style and changing economic and social order. Such imminent changes demand continuous review of the prevalent mode of teaching-learning system, activities beyond curriculum, professional grooming of students and look for newer approaches for career prospecting for the graduating students to optimally grab the emerging opportunities and avenues. In this background, the Project on **Tracers' Study for Career Prospecting of BESUS Students** has been initiated by the University under ongoing TEQIP Programme, with the broad objective of tracing the career path of passed-out students of the University, so as to ascertain the specific needs of the professional life and career, which can be attempted to be plugged in partially or fully, for the benefit of both current as well as passed-out students of the University by way of bringing in required academic and administrative reforms. This Feed-back / Response Survey from the latest batch of students of the University has been conceived as a part of this activity.

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- Please fill in all four sections of the Questionnaire (A - Personal Profile; B- Career Aspirations; C- career Prospecting Initiatives and D - Your Suggestions)
- Provide your latest and permanent contact details in Personal Profile Section - you are likely to be contacted in future as well in this regard.
- Put your options by providing a tick in the Box and put Numerical in the Circles provided in the relevant sections.
- We would also request you to urge all BESUS ex-students whom you know, to fill-up this Feed-back / Response Form also available at the URL : [http://www.becs.in/html/Tracers Study](http://www.becs.in/html/Tracers%20Study)
- In case you have any query related to the questionnaire - please drop a mail to headhrm@becs.ac.in. You may also use the same mail id to subsequently share any other pertinent information relevant to this project.

You may now start filling-in the Questionnaire

A. Personal Profile					
(Surname)		(First Name)	(Middle Name)	University Registration Number (BESUS)	
A.1	NAME (CAPITALS ONLY)	BHATTACHARYA BISWARUP		A2	110508037
A.2	Email	bhattacharyya.biswarup.03@gmail.com		A3	Mobile No 8013350519
A.4.1	Course at BESU (Please Tick)	<input type="checkbox"/> B.E. / M.E. / M.Tech. / M.Sc. / M.B.A.	A.4.2	Stream / Specialization	EST
A.5. Current Employment (Tick for options below and give details as required)					
A.5.1	Job	A.5.1.1 Mention Name of the Company you are working for Puro Pak House Corpus Inc.	A.5.1.2 Your current Designation / role Consultant	A.5.1.3 Mode of Selection for the Job (Pls Tick)	<input type="checkbox"/> Campus Placement <input checked="" type="checkbox"/> Off-Campus Recruitment <input type="checkbox"/> Forced Applications / Direct Recruitment <input type="checkbox"/> Any Other (Pls. Mention)
A.5.2	Higher Studies	<input type="checkbox"/> A.5.2.1 Mention Name of the Course you are pursuing <input type="checkbox"/> A.5.2.2 Mention name of the Institute you are studying at present	A.5.2.3 Mode of Admission (Pls. Tick)	<input type="checkbox"/> Through GATE <input type="checkbox"/> Through CAT <input type="checkbox"/> Any Other (Pls. Mention)	<input type="checkbox"/> Family Business <input type="checkbox"/> First Generation Entrepreneur <input type="checkbox"/> New Start-Up (State the present stage)
A.5.3	Self-Employment	<input type="checkbox"/> A.5.3.1 Nature and type of business	<input type="checkbox"/> A.5.3.2 (Pls Tick)	<input type="checkbox"/> A.5.3.3 (Pls Tick)	<input type="checkbox"/> A.5.3.4 (Pls Tick)
Signature of Respondent			Date		

Tracers' Study Response Sheet. Sl. No. _____ Date: _____ Code No. _____ (Not to be filled by Respondents) Page | 1 of 2

B. Career Aspirations

Q.1 What has been your aspiration regarding your career prior to completion of course at BESU (Pls Tick) (Pls. Tick)

Job	Higher Studies/Research	Self Employment	Any Other (Pls. Mention)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q.2 What would be your preference for future career (Tick for options below)

Q.2.1 For a job (Rate 1-8 in order of preference)

Working in core technical domain	Working for Analytics	Working for IT Enabled Services	Working in Multi-disciplinary areas	Working in R & D	Working for Consulting Services	Civil Services	Teaching	Any other (Pls. Mention)
<input type="checkbox"/>	<input type="checkbox"/> 5	<input checked="" type="checkbox"/> 4	<input type="checkbox"/> 6	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 8	<input type="checkbox"/> 7

Q.2.2 For Higher Studies (Rate 1-3 in order of preference)

In Technical Areas	In Management	Any Other (Pls. mention)
<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/>

Q.2.3 What would be your criteria for rating an organisation to work with (Rate 1-7 in order of preference)

Stability	Pay and Perks	Scope for learning and growth	Company working environment	Job Security	Logistics (location etc)	Any other (Pls. Mention)
<input type="checkbox"/>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 3	<input type="checkbox"/> 6

Feedback from seniors batches

Thoroughly unsatisfied, looking for immediate change

O.K. for the time being

Reasonably Satisfied

Satisfied beyond expectations (Pls elaborate)

7

Q.2.4 How do you estimate the gap between your career aspirations and your current job engagement (For those who are forced in a job) (Pls. Tick)

Higher studies improve job prospects	As a default option in job scarce market	Serious about a career in teaching and/or research	Higher Studies improve career prospects in any job	Any other (Pls. Mention)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q.2.5 Why have you opted for higher studies in a professional Course (Pls. Tick)

Higher studies improve job prospects	As a default option in job scarce market	Serious about a career in teaching and/or research	Higher Studies improve career prospects in any job	Any other (Pls. Mention)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C. Career Prospecting Initiatives

Q.1. Identify any career development initiatives that you had taken (in your own) during your tenure as student at IEST.

Q.2. Mention any career development initiatives of the Institute which you feel have been useful for you.

Training Program on Cognizant.

D. Your suggestions

Q.3. Suggest initiatives that could be taken by the University beyond our campus during the studentship which, in your opinion, could have positive impacts on career development of the students.

by understanding you as follows.
① I believe BEST groups there in communication skills. it would be much helpful if measures are taken in this direction.
② Industrial Training.

Q.4. Suggest any concrete reform in the studentship that you feel would improve the career prospects for the students.

For Computer Science & below in next iteration advanced Excel training, Java, and GUI based platform interface design.

Q.5. Suggest any modification in the teaching-learning method that you feel would improve the career prospects for the students.

More importance in laboratory-based evaluation.

Signature of Respondent

Date

Thanks for your support and cooperation

Tracers' Study Response Sheet Q. No.

Date

Page No.

(Not to be filled by Respondents)

Page | 2 of 2

Tracers' Study for Career Prospecting of BESUS Students

Feed-back / Response Survey for 2013 Pass-out students.

Background :

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- Provide your latest and permanent contact details in Personal Profile Section - you are likely to be contacted in future as well in this regard.
- Put your options by providing a tick in the Box and put Numerical in the Circles provided in the relevant sections.
- We would also request you to urge all BESUS ex-students whom you know, to fill-up this Feed-back / Response Form also available at the URL : [http://www.becs.in/html/Tracers Study](http://www.becs.in/html/Tracers%20Study)
- In case you have any query related to the questionnaire - please drop a mail to headhrm@becs.ac.in. You may also use the same mail id to subsequently share any other pertinent information relevant to this project.

You may now start filling-in the Questionnaire

A. Personal Profile					
(Surname)		(First Name)	(Middle Name)	University Registration Number (BESUS)	
A.1	NAME (CAPITALS ONLY)	BHATTACHARYA BISWARUP		A2	110508037
A.2	Email	bhattacharyya.biswarup.03@gmail.com		A3	Mobile No 8013350519
A.4.1	Course at BESU (Please Tick)	<input type="checkbox"/> B.E. / M.E. / M.Tech. / M.Sc. / M.B.A.	A.4.2	Stream / Specialization	EST
A.5. Current Employment (Tick for options below and give details as required)					
A.5.1	Job	A.5.1.1 Mention Name of the Company you are working for Prime Data House Corp. Inc.	A.5.1.2 Your current Designation / role Consultant	A.5.1.3 Mode of Selection for the Job (Pls Tick)	<input type="checkbox"/> Campus Placement <input checked="" type="checkbox"/> Off-Campus Recruitment <input type="checkbox"/> Forced Applications / Direct Recruitment <input type="checkbox"/> Any Other (Pls. Mention)
A.5.2	Higher Studies	<input type="checkbox"/> A.5.2.1 Mention Name of the Course you are pursuing <input type="checkbox"/> A.5.2.2 Mention name of the Institute you are studying at present	A.5.2.3 Mode of Admission (Pls. Tick)	<input type="checkbox"/> Through GATE <input type="checkbox"/> Through CAT <input type="checkbox"/> Any Other (Pls. Mention)	<input type="checkbox"/> Family Business <input type="checkbox"/> First Generation Entrepreneur <input type="checkbox"/> New Start-Up (State the present stage)
A.5.3	Self Employment	<input type="checkbox"/> A.5.3.1 Nature and type of business	<input type="checkbox"/> A.5.3.2 (Pls Tick)	<input type="checkbox"/> A.5.3.3 (Pls Tick)	<input type="checkbox"/> A.5.3.4 (Pls Tick)
Signature of Respondent			Date		

Tracers' Study Response Sheet. Sl. No. _____ Date: _____ Code No. _____ (Not to be filled by Respondents) Page | 1 of 2

B. Career Aspirations

Q.1 What has been your aspiration regarding your career prior to completion of course at BESU (Pls Tick) (Pls. Tick)

Job
 Higher Studies/Research
 Self Employment
 Any Other (Pls. Mention)

Q.2 What would be your preference for future career (Tick for options below)

Q.2.1 For a job (Rate 1-8 in order of preference)

Working in core technical domain	Working for Analytics	Working for IT Enabled Services	Working in Multi-disciplinary areas	Working in R & D	Working for Consulting services	Civil Services	Teaching	Any other (Pls. Mention)
<input type="checkbox"/>	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 6	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 7

Q.2.2 For Higher Studies (Rate 1-3 in order of preference)

In Technical Areas	In Management	Any Other (Pls. mention)
<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 1	<input type="checkbox"/>

Q.2.3 What would be your criteria for rating an organisation to work with (Rate 1-7 in order of preference)

Stability	Pay and Perks	Scope for learning and growth	Company working environment	Job Security	Logistics (location etc)	Any other (Pls. Mention)
<input type="checkbox"/>	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 7

Thoroughly unsatisfied, looking for immediate change
 O.K. for the time being
 Reasonably Satisfied
 Satisfied beyond expectations (Pls elaborate)

Q.2.4 How do you estimate the gap between your career aspirations and your current job engagement (For those who are forced in a job) (Pls. Tick)

Higher studies improve job prospects
 As a default option in job scarce market
 Serious about a career in teaching and/or research
 Higher Studies improve career prospects in any job
 Any other (Pls. Mention)

Q.2.5 Why have you opted for higher studies in a professional Course (Pls. Tick)

C. Career Prospecting Initiatives

Q.1. Identify any career development initiatives that you had taken (in your own) during your tenure as student at IEST.

Q.2. Mention any career development initiatives of the Institute which you feel have been useful for you.

Training Program on Cognizant.

D. Your suggestions

Q.3. Suggest initiatives that could be taken by the University beyond our campus during the studentship which, in your opinion, could have positive impacts on career development of the students.

by understanding you as follows.
① I believe BEST groups there in communication skills. it would be much helpful if measures are taken in this direction.
② Industrial Training.

Q.4. Suggest any concrete reform in the studentship that you feel would improve the career prospects for the students.

For Computer Science & below in most direction advanced level training, Java, and GUI based platform interface design.

Q.5. Suggest any modification in the teaching-learning method that you feel would improve the career prospects for the students.

More importance in laboratory-based evaluation.

Signature of Respondent

Date

Thanks for your support and cooperation

Tracers' Study Response Sheet Q. No. _____

Date _____

Page No. _____

(Not to be filled by Respondents)

Page | 2 of 2

ANNEXURE – 2

(Sample of Print after Data Entry for checking)

TRACER STUDY FEEDBACK(2013)ARCHITECTURE (09 Sheets)

A.5.	A.4		A.3.	A.2		A.1	
	A.5.1			2.a	1		FORM NO. :
	3	2						1
JOB							
<u>Selection Mode</u> : a.campus b.Off Campus c. Forced /Direct d.Any Other	Designation	Co. Name	Stream/ Specialisations	Course at BESU	Mobile no.	E-mail ID	
						University Registration No.	
b. Off - Campus	Junior Architect	SUBIR KUMAR BASU ARCHITECTS & ENGINEER	ARCHITECTURE	U.G/B.E	9874653081	130208012 aijit.debnath25@gmail.com	TS/JUG/2013/ Arch/01
b. Off - Campus	Associate Architect	MICROSPACE ARCHITECTS	ARCHITECTURE	U.G/B.E	9831317164	130208009 tinz.talkz@gmail.com	TS/JUG/2013/ Arch/02
b. Off - Campus	Architect	ANJAN GUPTA ARCHITECTS	ARCHITECTURE	U.G/B.E	9674737281	130208016 sanchayan.architect@gmail.com	TS/JUG/2013/ Arch/03
b. Off - Campus	Junior Architect	THE APPROPRIATE ALTERNATIVE	ARCHITECTURE	U.G/B.E	9874064852	130208013 sudiptaroy17@yahoo.co.in	TS/JUG/2013/ Arch/04
b. Off - Campus	Assistant Architect	RAJ AGARWAL & ASSOCIATES , KOLKATA	ARCHITECTURE	U.G/B.E	9007116473	130208018 shahbaz1990arch@yahoo.in	TS/JUG/2013/ Arch/05
.....	Architect	DESIGN ACCORD	ARCHITECTURE	U.G/B.E	9051210733	130208011	TS/JUG/2013/ Arch/06
.....	yes	.....	ARCHITECTURE	U.G/B.E	9903497417	130208007	TS/JUG/2013/ Arch/07
.....	yes	.....	ARCHITECTURE	U.G/B.E	9830307020	130208015	TS/JUG/2013/ Arch/08
.....	.....	.....	ARCHITECTURE	U.G/B.E	7359453593	130208001 jayteachkrbtr@gmail.com	TS/JUG/2013/ Arch/09

B.2		B.1				A.5.3				A.5.2		
B.2.1		Aim before Course completion				Self-Employment				Higher Studies		
JOB		1	2	3	4	1	2	3	4	Admission Mode	Institute Name	Course Name
2	1	Core Domain	Any Others	Self-Employment	Research	Job	New Start Up	1.Family Business 2.1st Generation Entrepreneur	Type of Businesses			
7	1	.....	yes	.....	.....	.....	NA	NA	NA	NA	NA	NA
4	7	.....	.....	.....	.....	yes	NA	NA	NA	NA	NA	NA
7	1	.....	.....	.....	.....	yes	NA	NA	NA	NA	NA	NA
6	1	.....	.....	.....	.....	yes	NA	NA	NA	NA	NA	NA
0	0	.....	yes	.....	.....	.....	NA	NA	NA	NA	NA	NA
0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ARCHITECTURE
0	0	NA	yes	NA	NA	NA	NA	NA	NA	NA	NA	NA
0	0	NA	yes	NA	NA	NA	NA	NA	NA	NA	NA	NA
0	0	.....	.....	.....	.....	yes	NA	NA	NA	GATE	CEPT UNIVERSITY, GUJRAT.	M. PLAN

B.2.3										B.2.2									
ORGANISATION RATING					HIGHER STUDIES														
4	3	2	1		3	2	1	9	8	7	6	5	4	3	4	3	2	1	0
Congenial Working Environment	Scope for Learning & Growth	Pay & Perks	Bran dling	Any Others	Manag ement	Technic al Areas	Any Others	Teachi ng	Civil Service s	Cons ultan cy	R & D	Multi- Disciplin ary	ITES						
3	1	4	5	.....	2	1	.....	4	6	3	2	5	8						
2	1	3	6	.....	2	1	.....	6	5	1	2	3	8						
4	2	3	1	.....	2	1	.....	6	3	2	5	4	8						
2	1	5	4	.....	2	1	.....	3	5	2	4	8	7						
0	0	yes	0	.....	0	yes	.....	0	0	yes	0	0	0						
0	0	0	0	.....	0	0	.....	0	0	0	0	0	0						
0	0	0	0	.....	0	0	.....	0	0	0	0	0	0						
0	0	0	0	.....	0	0	.....	0	0	0	0	0	0						
0	0	0	0	.....	0	yes	.....	0	0	0	yes	0	0						

B.2.5				B.2.4						
Why Higher Studies				UNMET EXPECTATION						
4	3	2	1	4	3	2	1	7	6	5
Any Others	Career in Teaching or Research	Default option Job-Scarce	Improves Job Prospect	Satisfied beyond Expectations	Reasonably Satisfied	O.K. for Time Being	Thoroughly unsatisfied, looking for change	Any Others	Logistics	Job Security
.....	NA	NA	NA	NA	yes	NA	NA	7	6	2
.....	NA	NA	NA	NA	NA	yes	NA	7	5	4
.....	NA	NA	NA	NA	NA	yes	NA	7	5	6
.....	NA	NA	NA	NA	yes	NA	NA	7	6	3
.....	NA	NA	yes	NA	NA	NA	yes	.....	0	0
.....	NA	NA	NA	NA	NA	NA	NA	.....	0	0
.....	NA	NA	NA	NA	NA	NA	NA	.....	0	0
.....	NA	NA	NA	NA	NA	NA	NA	.....	0	0
.....	NA	NA	yes	NA	NA	NA	NA	.....	0	0

YOUR SUGGESTIONS			CAREER PROSPECTING INITIATIVES	
D.3	D.2	D.1	C.2	C.1
Modification in Teaching Learning Methods to improve Career Prospects	Curricular Reform to improve Career Prospects	Initiatives that can be taken by UNIVERSITY to help in Career Building	Participated in Career Development Initiative of Institution	Career Development Initiatives taken by yourself
.....	More involvement & encouragement required from teachers regarding students attending lectures, seminars or functions in other colleges - like ZONASA/NASA.	Educational tours, seminars conducted by the teachers.	1) Summer training during vacation. 2) Helping out some seniors. 3) Building technical & software skills.
.....
.....	University should start a foreign internship program for students who aspire to undergo training abroad.	.....	.....
.....
More exposure to professional field.	Introduce music & course on painting for Architecture students.	More stress should be given for learning rather than marks.	Learning in practical field with professionals.	Participation in teri-griha-(Green building technology).
.....
.....
.....
Up gradation of the syllabus.	1) Study of new technology. 2) Design competition between the top university in the country. 3) Collaboration with various firms to understand the field	Tour of various places having its Architectural importance.	6 months training.

**ANNEXURES
OF
UG GROUPS**

Consolidated D1,D2 & D3 for UG Group					
FINAL CONSOLIDATED LIST -- MA(Miscellaneous Academic)					
Code	Sub-Code	ITEM	Code	Sub-Code	ITEM
MA - Miscellaneous Academic	Improve	Improve Soft skills thro' W/shops & Seminars(2)	MA - Miscellaneous Academic	Misc	Videos of processes
	Improve	Improved scope of research		More	Apart from theory, more stress on practical lab sessions
	Innovative	Study of new technology		More	Greater stress on field knowledge
	Lab	Change pattern of lab assignments every year		More	More focus on latest topics and latest software
	Misc	Allowing cross-departmental learning		More	More stress on learning rather than marks
	Misc	Don't teach non-departmental subjects		More	Regular group discussion on topics from each subjects
	Misc	Have regular class tests and add these in Final Marks		Motivated	Motivated to take innovative final yr project
	Misc	Solve in class test papers of Engg & Civil Services Exam		Motivated	Students motivated by Teachers for higher studies
MA - Miscellaneous Academic					

FINAL CONSOLIDATED LIST -- NCC(New Class/Training/etc for (Knowledge/Career Dev)					
Code	Sub-Code	ITEM	Code	Sub-Code	ITEM
NCC(New Class/Training/etc for (Knowledge/Career Dev)	Develop	Class on Personality Development, improving Body Language(2)	NCC(New Class/Training/etc for (Knowledge/Career Dev)	Misc	Lectures by experienced field engrs
	GD & PI	GD & PI in 3rd yr(2)		Training	Training for Spoken English
	Grooming	Professional grooming & communication skill		W/Shop	Regular technical & non-technical seminars
	Misc	Inform students regarding current development and research subjects		W/Shop	Strong focus on Seminar & group discussion.
NCH	Coach	Arrange classes for GATE/CAT(2)	NCH	New Course	Courses in Construction
NCH - New Class/Training/etc for (Higher Studies)					

ORP - Out Reach(Practical Knowledge Gain)						
Code	Sub-Code	ITEM		Code	Sub-Code	ITEM
ORP - Out Reach(Practical Knowledge Gain)	Collarbone	Collaborate with industry to improve academia-industry relationship		ORP - Out Reach(Practical Knowledge Gain)	Intrcn (Alumni)	Interaction with Alumni
	Inter-College	Inter-College Interaction			Intrcn (Ind)	W/shops, projects in collaboration with renowned cos
	Inter-College	Organize design competition between top universities in the country			Seminar	Seminars/Lectures by eminent personalities(2)
	Inter-College	Tie-up with premier institutes for student exchange				

SIE- System Improvement (Exams) & SIP - Systems Improvement (Pedagogy)						
Code	Sub-Code	ITEM		Code	Sub-Code	ITEM
SIE- System Improvement (Exams)				SIP - Systems Improvement (Pedagogy)	Notes	Give Xeroxed class-notes earlier
SIE- System Improvement (Exams)	Question	MCQ in Semester exam(4)			Practical's	More live project oriented learning rather than only theory
	Question	Set Semester questions that test knowledge and not memory			Teaching Method	More use of black-board based teaching
SIP - Systems Improvement (Pedagogy)					Teaching Method	Use of modern teaching tools - demonstration with 3D models , simulation, real life examples etc.
SIP	Interactive	Interactive classes instead of PPTs	Teaching Method	Use Simulation or Animation in class		

MNA - Final Consolidated List - After Items deleted, Sorted			
Code	Item	Code	Item
MNA - Miscellaneous Non Academic	Better conducive student-teacher relation	MNA - Miscellaneous Non Academic	Initiate Cultural functions
	Better infrastructure & laboratories.		Less strict, open-minded faculty & administration
	Better sports facilities		More stress on overall growth rather than only academics
	Better teacher student interaction		Offering electives each semester in interesting areas like Finance, International Affairs
	Career Counseling		Organize Career Fair every yr
	Communication training		Organize small competition with prizes
	Discuss GK, Current Affairs, Literature & Culture		Promote art & literature/Form Cultural Committees
	Encourage students for voluntary projects		Promote independent thinking in students
	Exposure to sports & games to develop personality & leadership qualities.		Promote quizzing, debating
	Have better machines		Provide platform for students to air their views
	Have Cyber Library		Providing scope to students for expression of ideas
	Helpful & fast online service		Student exchange programmes(2)
	Immediate installation of student's union.		Students encouraged to reform society, like working for poor, child labourers & victims of natural disasters
	Increase interaction among all students		Student's Union

NS- All Combined (Sorted on Code & Item)			
Code	Item	Code	Item
NS - New Systems	Abolish 75% attendance	NS - New Systems	Student Evaluation on attending GD & PI classes & Inter-college interaction
	Compulsory faculty feedback/evaluation; replace teacher based on feedback		Student feedback every month; assess by neutral body and publish result
	Criteria for 1st Class to be 60%		Students should be allowed to do classes of their own interests
	Make teachers accountable		Students to evaluate teachers & their salary dependent upon evaluation
	Stop conditions for sitting in Semester exams		Take serious note of student feedback

PC - All Combined (Sorted - Items deleted)			
Code	ITEM	Code	ITEM
PC (Placement Cell)	Better placement facility	PC (Placement Cell)	No forcing of students to sit for interview
	Career counseling program to be introduced for right job		Placement Cell to get more Cos for placement
	List of companies to be shown to student for making choice.		Restructuring Placement process
	More classes on Campus Placement procedure		Training & Placement officer to be clear about the company & brand when coming for hiring
	More Internships by Placement Cell(2)		Upgrade Training & Placement

FINAL CONSOLIDATED LIST -- SIC (Systems Improvement - Curriculum)					
Code	Sub-Code	ITEM	Code	Sub-Code	ITEM
SIC (Systems Improvement - Curriculum)	Curriculum	Curriculum to comply with Industry standards	SIC (Systems Improvement - Curriculum)	Software	Improvement in subject-related software skills
		Curriculum to include Industrial projects			Include Coding in MATLAB curriculum
		Department specific curriculum from 1st yr			Latest Mining Software's e.g. MINEX, SURPAL from 3rd yr
		Scrap unnecessary subjects in different semesters			More sessions on Technical & Coding skill development
	Decrease	Reduce number of subjects per semester			More stress on Analog & Digital Communication
		IIT			Adopt IIT mechanism as far as possible	More syllabus of Java, C++, C in all departments , as mass recruiting done by IT firms
	Lab				Lab assignments should change every year	Courses on Auto-CAD, ANSYS etc
	Misc	Better coverage of modern and industry based technical issues			Teach Planning Software
		Computer application in Metallurgy			Training	Vocational training at the end of 3rd yr
		Introduce course in Music & Painting for Arch students		Up-to-date	Modernize syllabus
		Make Vocational Training Compulsory			More advanced Electives
		Mandatory Summer project			More focus on latest technologies
	Teach Protective Relay in 3rd Yr	Visits		Compulsory visits to some Core Industries	
	Practical's			Have individual viva of Practical's	More industry tours from 3rd Sem
				Projects	More real-life projects based on course-work

Consolidated D1,D2 & D3 for UG Group					
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		Scrap unnecessary subjects in different semesters			More sessions on Technical & Coding skill development
	Decrease	Reduce number of subjects per semester			More stress on Analog & Digital Communication
		IIT			Adopt IIT mechanism as far as possible
	Lab				Lab assignments should change every year
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		Introduce course in Music & Painting for Arch students		Up-to-date	Modernize syllabus
		Make Vocational Training Compulsory			More advanced Electives
		Mandatory Summer project			More focus on latest technologies
	Teach Protective Relay in 3rd Yr	Visits		Compulsory visits to some Core Industries	
	Practical's			Have individual viva of Practical's	More industry tours from 3rd Sem
				Projects	More real-life projects based on course-work

ANNEXURES
OF
PG (M.TECH) GROUPS

Consolidated D1,D2 & D3 for PG (M.Tech) Group

PG(M.Tech) Final List for MA - Miscellaneous Academic

Code	ITEM	Code	ITEM
MA - Miscellaneous Academic	5 or 10 years plan for specific product or finding Fundamental theory.	MA - Miscellaneous Academic	More case studies.
	Acquaintance with Indian / International Standards & Codes.		More practical's & lab in S.O.H course.
	Allowing students to take up uncommon subjects.		More visit to Industry to improve career prospects.
	Arrange for Web based seminars to help students identify their favorites topic & also latest technology trends in Industry.		R&D activities can be increased to help those interested in Higher Studies.
	Conduct some seminars with safety professional from different industries.		Regular Seminar on specific topic & hands on experiments.
	Engage more experienced faculty.		Seminars on Entrepreneurship development.
	Enhanced scope of practical work with Theory.		Special training on mathematics.
	Industry or Current research related assignments.		Teach recent developments in Stream.
	Minor project with each subjects.		Workshops on health & safety for awareness & learning of students.

PG(M.Tech) Final List for MNA - Miscellaneous Non Academic

Code	ITEM	Code	ITEM
MNA	One Cultural Celebration.	MNA	PG course students should be encouraged for PhD & necessary guidance can be included in curriculum.

PG(M.Tech) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

Code	ITEM	Code	ITEM
NCC - New Class/Training/etc for (Knowledge/Career Dev)	Arrange some mock Aptitude tests.	NCC - New Class/Training /etc for (Knowledge/Career Dev)	IAS, IES Coaching classes.
	Counseling on Career Development prior to placement.		Improvement of Soft skills.
	Grooming classes for Campusing.		

PG(M.Tech) Final List for NS - New Systems (M. Tech)			
Code	ITEM	Code	ITEM
NS - New Systems	Equal division of marks between assignment & written exam.	NS - New Systems	No end semester exams.
	In SOH scope for taking some classes of undergraduates courses.		Special Research cell for fundamental Research on Science & Technology.
PG(M.Tech) Final List for ORP - Out Reach(Practical Knowledge Gain)			
Code	ITEM	Code	ITEM
ORP - Out Reach(Practical Knowledge Gain)	Arrange for Internship in Research Labs / Industry.	ORP - Out Reach(Practical Knowledge Gain)	More distinguished visiting professors.
	Better interaction with the Industry.		Real time projects in collaboration of Industry.
	Frequent Lectures from Industry / R&D.		Visit to different Companies to get an idea about the work culture & especially their R&D.
	To involve professionals to develop Industry perspective.		
PG(M.Tech) Final List for PC (Placement Cell)			
Code	ITEM	Code	ITEM
PC	Campus placement system should be strong.		

PG(M.Tech) Final List for SIC - Systems Improvement(Curriculum)

Code	ITEM	Code	ITEM
SIC - Systems Improvement(Curriculum)	Arrange for Final year Project in Industry.	SIC - Systems Improvement(Curriculum)	Each students to give a PPT Presentation on some innovative Ideas towards Technological changes.
	Have weekly or bi- weekly evaluations throughout semester.		Full time M.Tech (SOH) course may be introduced , it possible.
	Adding new technical subjects like Cloud Computing to the curriculum.		Inclusion of more computer related subjects in all branches.
	Design Industry oriented curriculum.		Syllabus may be modified to give some practical exposure.

PG(M.Tech) Final List for SIP - Systems Improvement (Pedagogy)

Code	ITEM	Code	ITEM
SIP	Class test & more visual presentation required for exam preparation & better knowledge.	SIP	Use of Blackboard instead of Projector.

Consolidated D1,D2 & D3 for PG (M.Tech) Group

PG(M.Tech) Final List for MA - Miscellaneous Academic

Code	ITEM	Code	ITEM
MA - Miscellaneous Academic	5 or 10 years plan for specific product or finding Fundamental theory.	MA - Miscellaneous Academic	More case studies.
	Acquaintance with Indian / International Standards & Codes.		More practical's & lab in S.O.H course.
	Allowing students to take up uncommon subjects.		More visit to Industry to improve career prospects.
	Arrange for Web based seminars to help students identify their favorites topic & also latest technology trends in Industry.		R&D activities can be increased to help those interested in Higher Studies.
	Conduct some seminars with safety professional from different industries.		Regular Seminar on specific topic & hands on experiments.
	Engage more experienced faculty.		Seminars on Entrepreneurship development.
	Enhanced scope of practical work with Theory.		Special training on mathematics.
	Industry or Current research related assignments.		Teach recent developments in Stream.
	Minor project with each subjects.		Workshops on health & safety for awareness & learning of students.

PG(M.Tech) Final List for MNA - Miscellaneous Non Academic

Code	ITEM	Code	ITEM
MNA	One Cultural Celebration.	MNA	PG course students should be encouraged for PhD & necessary guidance can be included in curriculum.

PG(M.Tech) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

Code	ITEM	Code	ITEM
NCC - New Class/Training/etc for (Knowledge/Career Dev)	Arrange some mock Aptitude tests.	NCC - New Class/Training /etc for (Knowledge/Career Dev)	IAS, IES Coaching classes.
	Counseling on Career Development prior to placement.		Improvement of Soft skills.
	Grooming classes for Campusing.		

PG(M.Tech) Final List for NS - New Systems (M. Tech)			
Code	ITEM	Code	ITEM
NS - New Systems	Equal division of marks between assignment & written exam.	NS - New Systems	No end semester exams.
	In SOH scope for taking some classes of undergraduates courses.		Special Research cell for fundamental Research on Science & Technology.
PG(M.Tech) Final List for ORP - Out Reach(Practical Knowledge Gain)			
Code	ITEM	Code	ITEM
ORP - Out Reach(Practical Knowledge Gain)	Arrange for Internship in Research Labs / Industry.	ORP - Out Reach(Practical Knowledge Gain)	More distinguished visiting professors.
	Better interaction with the Industry.		Real time projects in collaboration of Industry.
	Frequent Lectures from Industry / R&D.		Visit to different Companies to get an idea about the work culture & especially their R&D.
	To involve professionals to develop Industry perspective.		
PG(M.Tech) Final List for PC (Placement Cell)			
Code	ITEM	Code	ITEM
PC	Campus placement system should be strong.		

PG(M.Tech) Final List for SIC - Systems Improvement(Curriculum)

Code	ITEM	Code	ITEM
SIC - Systems Improvement(Curriculum)	Arrange for Final year Project in Industry.	SIC - Systems Improvement(Curriculum)	Each students to give a PPT Presentation on some innovative Ideas towards Technological changes.
	Have weekly or bi- weekly evaluations throughout semester.		Full time M.Tech (SOH) course may be introduced , it possible.
	Adding new technical subjects like Cloud Computing to the curriculum.		Inclusion of more computer related subjects in all branches.
	Design Industry oriented curriculum.		Syllabus may be modified to give some practical exposure.

PG(M.Tech) Final List for SIP - Systems Improvement (Pedagogy)

Code	ITEM	Code	ITEM
SIP	Class test & more visual presentation required for exam preparation & better knowledge.	SIP	Use of Blackboard instead of Projector.

ANNEXURES
OF
PG (M.E) GROUPS

ANNEXURES
OF
PG (M.E) GROUPS

Consolidated D1,D2 & D3 for PG (M.E) Group

PG(M.E) Final List for MA - Miscellaneous Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MA - Miscellaneous Academic	Access to Up- to date technology & software.	MA - Miscellaneous Academic	Idea about various Software's used in industry , like ANSYS ,TEKLA , ABACUS etc .
	Arrange class - exam in every month.		Improve Infrastructure for R & D scholars.
	Arrangement of "Tech - fest".		Improve Lab facilities.
	Coaching for PSU entrance exams.		Increase Scope of Choosing Elective papers.
	Discussion & orientation about the current ongoing research in the World.		Inter Departmental Research facility in PG as well as PhD Scale.
	Exposure to the state of the art technologies , software's.		More faculty & laboratory facilities.
	For Students interested in R&D , there should be more focus on Theory.		More Seminars could be arranged.
	For Students interested in Working in Core technical domain, focus on Practical.		Providing training about writing technical documents.
	Getting opportunity to interact with Industry persons at Conferences / Seminars.		Solving mathematical problems of technical subjects.
	Group Discussions on various topics.		Technical aptitude tests.

PG(M.E) Final List for MNA - Miscellaneous Non Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MNA - Miscellaneous Non Academic	Art , Music & Sports.	MNA - Miscellaneous Non Academic	More Teacher & Students interaction.
	Friendly interaction between Teachers & students.		Seminars on Life history of eminent persons.
	Institute should organize Career development forums.		Students should first identify their Career path like R&D , Teaching , Civil Services etc. Faculty may then guide them accordingly.
	Mandatory participation in sports & gym.		

PG (M.E) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NCC	Arrange Training programs for Higher Education opportunities, Job oriented or on entrepreneurship.	NCC	English Classes.
NCC	Arranging GDs on various topics.	NCC	Program on Communication Skills.
NCC	Dummy technical interviews.		

PG (M.E) Final List for NS - New System /Area

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NS - New System /Area	Consult industrialists & ex-students while preparing syllabus.	NS - New System /Area	Evaluation & analysis of Performance of teacher , faculty members by the students.
	Evaluation of teachers by the students.		Teaching Assistants for PG students.
PG (M.E) Final List for ORP - Out Reach(Practical Knowledge Gain)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
ORP - Out Reach(Practical Knowledge Gain)	Interaction with the Industry in relevant field.	ORP - Out Reach(Practical Knowledge Gain)	Student exchange programs.
	Interactive sessions with Industry Professionals.		Technical Training in Govt. sector.
	Open house interaction with the Industry in relevant field about their requirement & the present market condition.		To arrange a workshop in " Transportation Management" at Rajarhat Municipality.
PG (M.E) Final List for PC (Placement Cell)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
PC (Placement Cell)	Arrange some Career Counseling.	PC (Placement Cell)	More Multinational branded company should be called for campusing.
	Arranging for Core Companies to select PG students.		Placement of UG students as Interns on temporary basis with Cos.
	Campus placement opportunities by R&Ds & prestigious teaching institutes for M.E or M.Tech students.		Request Industrial training for the M.E ETCE Students.
	Job opportunities for those willing to do R&D sectors.		Sufficient placement should be given to the M.E students.

PG (M.E) Final List for SIC - Systems Improvement(Curriculum)			
Code	Item	Code	Item
SIC - Systems Improvement(Curriculum)	Arrange Experimental procedures in ME courses also.	SIC - Systems Improvement(Curriculum)	Introduce Sessionals on Machine Design & Electrical Drives in PG level.
	Better Scope of Industrial training for IT Students.		Introduction of a compulsory MATLAB course.
	Changing duration of Even Semester.		Laboratory work should be increased for M.E students.
	Each class must be followed by practical session .		More field based study system required.
	Exams can be delayed in even Semesters as time is short.		More Practical lab scale experimental facility.
	Extra - Curricular classes of on - site technical demonstration.		More practical sessions & a well defined syllabus to be given at the start of semester.
	Hands on training with IITs & R&D houses.		Practical oriented problems & Industrial application.
	Include some practical lab experiments for ME in Microwave Communication.		Proper classical subjects like AI , research subjects like NOC , Wireless , Language Processing should be in curriculum.
	Inclusion of adv. Mathematics in the syllabus.		Replace obsolete subjects by new ones.
	Inclusion of more Software into PG syllabus.		Short term projects in 2nd yr under faculty guidance.
	Inclusion of real -life as well as mathematical problems in syllabus.		The syllabus should also include relevant work in that particular domain.
	Incorporate modern technology in syllabus.		There should be more practical classes for M.E students.
	Industrial training & dedicated participation in practical projects.		Thoroughly revise CSE Curriculum.
	Industry oriented syllabus.		
PG (M.E) Final List for SIP - Systems Improvement(Pedagogy)			
Code	Item	Code	Item
SIP - Systems Improvement(Pedagogy)	Adopt modern teaching methods.	SIP - Systems Improvement (Pedagogy)	Use practical experience to improve the teaching method.
	Arrangement of Video Lectures by International Personalities.		Using more computer-aided teaching methods.
	The class should be more attractive by using different types of modern learning equipments or prototypes.		

**ANNEXURES
OF
PG (M.SC) GROUPS**

Consolidated D1,D2 & D3 for PG (M.SC) Group

PG(M.SC) Final List for MA - Miscellaneous Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MA - Miscellaneous Academic	Involvement of every student in discussion of a subject.	MA - Miscellaneous Academic	Participate in various Competitions, Surveys , Seminars
	Exposure to National Seminars.		Provide better instrumentation in Science Labs.
	Improvement of PG Labs.		The faculty should actively pursue challenging Research topics, relevant in today's scenario.
	Increase the number of faculties.		Update about different research work.
	More Seminars should be organized.		Well Equipped Lab.
	More Research work.		

PG(M.SC) Final List for MNA - Miscellaneous Non Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MNA - Miscellaneous Non Academic	Improvement of lab equipment.	MNA - Miscellaneous Non Academic	Recruit regular faculties in proper specialization.
	Keep students away from faculty politics.		Teachers should be more friendly.
	Must stop partiality by Teachers.		

PG(M.SC) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NCC - New Class/Training/etc for (Knowledge/Career Dev)	A weekly Sessions for NET & GATE.	NCC - New Class/Training/etc for (Knowledge/Career Dev)	Discuss about problem & solution of Competitive examinations (NET , GATE ,IISC ,BARK).
	Career advancement coaching , Mock test for Campus interview.		Grooming class, Career coaching class , Advance course should be essential.

PG(M.SC) Final List for NS - New System /Area			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NS - New System /Area	External correction of papers.	NS - New System /Area	Opportunity to take classes for Undergraduates.
	Feedback by students & assessments of teachers.		

PG(M.SC) Final List for ORP - Out Reach(Practical Knowledge Gain)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
ORP Out Reach(Practical Knowledge Gain)	Forming Alumni Association of Science departments.		

PG(M.SC) Final List for PC - Placement Cell			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
PC - Placement Cell	Campus Interview of all Departments.	PC - Placement Cell	More companies should be brought for campus interview.
	Improvement of Placement System for M.Sc students.		Proper Placement Cell for all Science courses.
	Involve the Science department in placement.		Reactivate nearly defunct placement cell.
	More camping for teaching jobs.		

PG(M.SC) Final List for SIC - Systems Improvement (Curriculum)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIC - Systems Improvement (Curriculum)	Increase the time period of individual classes.	SIC - Systems Improvement (Curriculum)	Make students familiar with current research trends.
	An Industrial Visit.		Projects in every semester.
	Have more Practical Works , Field visit , Projects work etc.		There should be some courses on Software (like JAVA , C++ , etc).
	Learning in NET , GATE pattern.		To include project work in each semester.

PG(M.SC) Final List for SIP - Systems Improvement (Pedagogy)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIP - Systems Improvement (Pedagogy)	Application based teaching.	SIP	The teaching - learning method in this institute is not very effective.
	Teaching & Learning method should be modified.		

Consolidated D1,D2 & D3 for PG (M.SC) Group

PG(M.SC) Final List for MA - Miscellaneous Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MA - Miscellaneous Academic	Involvement of every student in discussion of a subject.	MA - Miscellaneous Academic	Participate in various Competitions, Surveys , Seminars
	Exposure to National Seminars.		Provide better instrumentation in Science Labs.
	Improvement of PG Labs.		The faculty should actively pursue challenging Research topics, relevant in today's scenario.
	Increase the number of faculties.		Update about different research work.
	More Seminars should be organized.		Well Equipped Lab.
	More Research work.		

PG(M.SC) Final List for MNA - Miscellaneous Non Academic

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
MNA - Miscellaneous Non Academic	Improvement of lab equipment.	MNA - Miscellaneous Non Academic	Recruit regular faculties in proper specialization.
	Keep students away from faculty politics.		Teachers should be more friendly.
	Must stop partiality by Teachers.		

PG(M.SC) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NCC - New Class/Training/etc for (Knowledge/Career Dev)	A weekly Sessions for NET & GATE.	NCC - New Class/Training/etc for (Knowledge/Career Dev)	Discuss about problem & solution of Competitive examinations (NET , GATE ,IISc ,BARK).
	Career advancement coaching , Mock test for Campus interview.		Grooming class, Career coaching class , Advance course should be essential.

PG(M.SC) Final List for NS - New System /Area			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
NS - New System /Area	External correction of papers.	NS - New System /Area	Opportunity to take classes for Undergraduates.
	Feedback by students & assessments of teachers.		

PG(M.SC) Final List for ORP - Out Reach(Practical Knowledge Gain)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
ORP Out Reach(Practical Knowledge Gain)	Forming Alumni Association of Science departments.		

PG(M.SC) Final List for PC - Placement Cell			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
PC - Placement Cell	Campus Interview of all Departments.	PC - Placement Cell	More companies should be brought for campus interview.
	Improvement of Placement System for M.Sc students.		Proper Placement Cell for all Science courses.
	Involve the Science department in placement.		Reactivate nearly defunct placement cell.
	More camping for teaching jobs.		

PG(M.SC) Final List for SIC - Systems Improvement (Curriculum)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIC - Systems Improvement (Curriculum)	Increase the time period of individual classes.	SIC - Systems Improvement (Curriculum)	Make students familiar with current research trends.
	An Industrial Visit.		Projects in every semester.
	Have more Practical Works , Field visit , Projects work etc.		There should be some courses on Software (like JAVA , C++ , etc).
	Learning in NET , GATE pattern.		To include project work in each semester.

PG(M.SC) Final List for SIP - Systems Improvement (Pedagogy)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIP - Systems Improvement (Pedagogy)	Application based teaching.	SIP	The teaching - learning method in this institute is not very effective.
	Teaching & Learning method should be modified.		

ANNEXURES
OF
PG (M.B.A) GROUPS

Consolidated D1,D2 & D3 for PG (M.B.A) Group

PG(M.B.A) Final List for MA - Miscellaneous Academic

Code	Item	Code	Item
MA	Conducting live Project.		
MA	Exposure to the Practicality of the Theory learnt.	MA	Organizing more seminars.

PG(M.B.A) Final List for MNA - Miscellaneous Non Academic

Code	Item	Code	Item
MNA	International books should be available in the Library.	MNA	Student - Teacher ratio should be improved.
MNA	Needs development in Infrastructure.		

PG(M.B.A) Final List for NCC - New Class/Training/etc for (Knowledge/Career Dev)

Code	Item	Code	Item
NCC	Classroom training.	NCC	Personal grooming.

PG(M.B.A) Final List for ORP - Out Reach(Practical Knowledge Gain)

Code	Item	Code	Item
ORP	Increase in visiting Faculty from High Graded Institutes.	ORP	Tie -up with Multinational Companies.
ORP	More interactions with corporate.		

PG(M.B.A) Final List for PC (Placement Cell)

Code	Item	Code	Item
PC	Stronger Training & Placement cell.		

PG(M.B.A) Final List for SIC - Systems Improvement(Curriculum)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIC - Systems Improvement(Curriculum)	Include Topics as in International Universities.	SIC - Systems Improvement(Curriculum)	Should focus on implementation rather than bookish knowledge.
	Job oriented syllabus.		Stress on real life achievers of management field.
	More involvement of the practical field giving less stress on the theories.		
PG(M.B.A) Final List for SIP - Systems Improvement (Pedagogy)			
<i>Code</i>	<i>Item</i>	<i>Code</i>	<i>Item</i>
SIP	Projector study.	SIP	The teaching process interactive rather than a one way process.

Tracers' Study is supposed to be a continuing activity on a long term basis. The first phase of the project carried out through this study provides the base-line information and also significant inputs for formulating subsequent phases of this project so as to derive much more meaningful recommendations towards improving the career prospects of the students of the Institute.

Any observation on the current report or constructive suggestions for the future continuation of the project, from all the stake-holders, would be highly appreciated.