ANNEXURE-A

Questionnaire

on

Development of a System Based Model for Improving Industry-Academia Interface

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Subject: Questionnaire on Industry-Academia Interface

Sir/Madam,

I take the opportunity to enclose a copy of the questionnaire with the request to fill up the same and return at the earliest. The questionnaire relates to research project on “Development of a System Based Model for Improving Industry-Academia Interface”

Quality education is one of the major issues before govt., technical institutes, industries and society. Industry-Institute Interaction is the need of the hour and has been widely talked in the academic arena and the govt. sector, but still there is a lot of scope for improvement.

It’s a general feeling that institutes need to change the way they do things in the educational arena to improve the efficiency and effectiveness of the system.

With globalization competition among industries has tremendously increased. Many of the small and medium enterprise are finding difficult to survive. With mushrooming of technical institutes, institutes too are unable to find suitable placement openings for their students.

Industries need the help of technical institutes to solve their engineering problems and institutions too depend upon industries to expose their students on newer technologies

In developed countries, hardly any engineering institution is able to survive without industry-institute interaction. To become a significant global player, industry-institute interaction has to be more intensive.
The present survey is aimed at collecting information from various institutes and industries about their interaction in the various fields viz. placement, industrial training, curriculum development, student’s evaluation, sharing of resources, seminars, R & D, adjunct faculty, collaboration & PDP. The feedback thus obtained will provide fairly accurate information about the present status of interaction, identification of various gaps and bottlenecks which exists between effective industry-institute interactions.

This feedback will help to strengthen the need of interaction, devise and improve ways, enrich and reorient engineering education, spark innovation and prepare the institutes to adjust to rapid changes in the industry.

You being a senior person concerned with technical education, its growth / being an end user is here by approached with the request to fill up the questionnaire with utmost care and return the same at the earliest.

Your co-operation will act as a milestone in service to the society and can contribute towards academic excellence.

With Regards,

V.K. Bansal
Respondent Sheet

Sub: **Questionnaire on Industry-Academia Interface**

a) **Name of the respondent**: __________________

b) **Age**: __________________

c) **Qualification**: __________________

d) **Experience in years**: __________________

e) **Designation**: __________________

f) **Department**: __________________

g) **Name of organization**: __________________

h) **Full office address**: __________________

i) **Phone No.**
   i) **Landline (Prefix STD code)**: __________________
   ii) **Mobile**: __________________

j) **E-mail**: __________________

k) **Year of establishment**: __________________

l) **Signature**: __________________

Official Stamp

Attach Business Card
Placement of students is one of the key issues for any institute. Students are always aspirant to study from an institute whose placement graph is quite high. Present purpose of the study is to understand the criterion of industries visit and their re-visits to the institutes and the attributes which they look in students during campus placement. Kindly tick (✓) the relevant column which you consider the most appropriate.

Q 1 Do you visit Engineering Institutes for permanent selection of fresh Engineers for your organization?
   a) yes
   b) no

Q 2 If yes, how many institutes do you visit/year for campus placement?
   a) less than 5
   b) 5-10
   c) 11-15
   d) more than 15

Q 3 What is the selection criterion for selection of an institute for campus recruitment? (please tick as many, as you feel appropriate).
   a) on the basis of performance of an employee of your organization, who happens to be an Alumnus of that institute?
   b) on the basis of reputation of that institute.
   c) on recommendation of fellow friends.
   d) on the basis of self evaluation of that institute.
   e) on the basis of performance of students during industrial/project training in your organization.
   f) on the basis of presentation given by the institute staff
   g) on the basis of ranking of the institute based on admission criterion.
   h) on the basis of ranking of the institute based on the accreditation of the institute

Q 4 Do you give preference to government institutes over private institutes for campus recruitment?
   a) yes
   b) no

Q 5 What eligibility criterion do you normally set for placement interviews?
   a) no criterion.
   b) any % age, but no backlog.
   c) more than 60 %
   d) more than 70 %
   e) more than 75 %
Q 6) Do you provide any relaxation to SC/ST/OBC category.
   a) yes  b) no

Q 7) If yes to Q 6, what relaxation do you provide.
   a) lowering the eligibility criterion.
   b) provide relaxation in marks in the written exam held for placement purpose.
   c) any other (please specify) ________________________

Q 8) What is the mode of selection process.
   a) only through interview.
   b) through technical test + interview.
   c) through technical test + G.D. + interview.
   d) through aptitude test + technical test + interview.
   e) through aptitude test + technical test + G.D + interview.
   f) any other (please specify) ________________________

Q 9) What salary do you offer to fresh engineers.
   a) up to Rs. 5000/- p.m.
   b) Rs. 5000/- to 10,000/- p.m.
   c) Rs. 10,000/- to 15,000/- p.m.
   d) Rs. 15,000/- to 20,000/- p.m.
   e) more than Rs. 20,000/-p.m.

Q 10 How much average annual salary growth a young engineer gets in your organization.
   a) up to 10 %  b) 10 % to 20 %
   c) 20 % to 30 %  d) more than 30 %

Q 11 Do you provide any on job training to fresh engineers at the time of joining?
   a) yes  b) no

Q 12 If yes to Q 11, how many man days of training you normally provide to fresh engineers
   a) up to 15 days  b) 15 days to 1 month
   c) up to 2 months  d) 2 to 3 months
   e) up to 6 months

Q 13 Do you provide In-house or outdoor training? Please tick the correct option
   a) in-house training  b) outdoor training

Q 14 Do you provide any feed back to the institute about student strengths & weaknesses, where you go for campus recruitment?
   a) no  b) rarely
   c) quite often  d) always
Q15  Do you feel a definite gap exists between employer's needs & student knowledge.
   a) yes       b) no

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Q 16  If yes to Q 15, rate the gap
on scale 1:5

Q 17  Please tick the criterion of re-visit to the institute.
   a) performance of the students in the industry
   b) retentivity of the students
   c) % age of students joining industry, once selected through campus.
   d) attitude of students during their stay in the industry.
   e) any other (please specify) ________________________________

Q 18  State the software/packages you feel essentially a student must know, when you
recruit fresh engineers.
   a) ______________________  b) ______________________
   c) ______________________  d) ______________________

Q 19  What weightage do you provide
   to following skills at the time of permanent recruitment of trainee
   engineer in your company.
   Rate on scale 1 to 5

   a) Technical Knowledge

   b) Practical Skills

   c) Aptitude

   d) Communication Skills

   e) Leadership Qualities
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- f) Software Knowledge
- g) Computer Literacy
- h) Team Work
- i) Discipline
- j) Attitudes
- k) Self Confidence
- l) Retentivity
- m) Capacity to change
- n) Value education
- o) Cross cultural understanding
Section - II

INDUSTRIAL TRAINING

Industrial Training is an integral part of an academic syllabus of any technical institution. It may exist in the form of long or short term training. The purpose of this section is to analyse the effective duration and period of industrial training along with its impact on student skills. Kindly tick (√) the relevant column which you consider the most appropriate.

Q 1 Do you provide industrial/project training to engineering college students?
   a) yes  b) no

Q 2 In case if answer to Q1 is yes, please specify how many students/ year you accommodate on training.
   a) up to 5  b) 6-10
   c) 11-15  d) more than 15

Q 3 Specify the areas on which training is imparted to students.
   a) Design  b) Production
   c) Quality Control  d) Vendor-Development
   e) R & D  f) Software Development
   g) any other (please specify) ____________________________

Q 4 State the criterion of selection of students for training.
   a) through campus interviews.
   b) through employees reference.
   c) through high up/govt. official recommendation.
   d) any one contacting directly.
   e) through Board or Apprentice ship act
   f) any other means (please specify) ____________________________

Q 5) Do you charge any fees from students for providing training
   a) yes  b) no

Q 6) i) Do you pay any stipend to a student during training.
      a) yes  b) no

      ii) if yes to Q6(i), please specify the stipend which you pay to students.
       a) up to Rs. 1500/- p.m.
       b) Rs 1500-3000/- p.m.
       c) Rs 3000-5000/- p.m.
d) more than Rs 5000/- p.m.

Q 7) Do you feel a student who gets stipend takes more interest in training & performs better.
   a) yes   b) no

Q 8) What is the duration for which you provide training to students.
   a) 6-8 weeks
   b) 6 months
   c) more than 6 months & less than a year
   d) any other(please specify) ______________________________

Q 9) In your opinion what duration of training is more effective
   a) 6-8 weeks
   b) 6 months
   c) more than 6 months & less than a year
   d) any other(please specify) ______________________________

Q 10) Do institute faculty monitors students’ training.
      a) yes   b) no

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Q 11) If answer to Q 10 is yes, please rate on scale 1:5 the effectiveness of faculty, monitoring the training

Q 12) Rate the seriousness of students regarding industrial training.

Q 13) Do you feel trainees are an asset for an industry and they make significant contribution to the growth of the company. Rate it on scale 1:5.

Q 14 Rate industrial participation in students evaluation during training

Q 15) Do you reward trainees who contribute in the growth of organization?
   i) yes
   a) in terms of money   b) in terms of job   c) in terms of kind
   d) any other(please specify)______________________________

   x
Q16) Do you feel sufficient practical / workshop input is necessary in the institute before the students are deputed on training in industries.
   a) yes          b) no

Q 17) If answer to Q16 is yes, please specify what % of practical / workshop exposure is required in relation to class room training. (Th. & Pr. stands for Theory & Practical)
   a) Th. 50 %, Pr. 50 %  b) Th. 60 %, Pr. 40 %
   c) Th. 70 %, Pr. 30 %  d) Th. 80 %, Pr. 20 %
   e) Th. 90 %, Pr. 10 %  f) any others (please specify)

Q18 Out of the following, which type of training industries provide to the students? Please tick the appropriate option.
   a) rotational          b) non- rotational

Q19 If training is rotational, to how many departments a student is exposed.
   a) one          b) two          c) three          d) any other (please specify)

Q 20 Tick the appropriate option from the following for training to be more meaningful
   a) if undergoes training in one department.
   b) if undergoes training in two departments
   c) if undergoes training in three departments.
   d) if put on training in more than three departments.

Q21 What criterion do you select in allotment of department to a student on training.
   a) student interest.
   b) departmental requirement
   c) random selection
   d) any other (please specify)

Q 22 During 4 year B.E/ B.Tech. program, in which semester do you feel industrial training should be incorporated to make it more effective.
   a) eighth          b) seventh          c) sixth          d) fifth
   e) any other (please specify)

Q23 During industrial training program, do you provide any class room training also.
   a) yes          b) no

Q24 i) If answer to Q 23 is yes, please specify the period of class room training.
   a) after every 15 days
   b) after every one month
   c) after every 2 months
   d) any other (please specify)
ii) What is the duration of class room training?
   a) 2 hrs  
   b) 4 hrs  
   c) 1 day  
   d) any other (please specify)__________________________

Q25  
   i) Do you have any provision of regular evaluation of students training in your industry?
   a) yes    
   b) no     

   ii) If yes to Q 25(i), is your evaluation have any weight age in students university marks?
   a) yes    
   b) no     

Q26  
   What %age of trainees normally you absorb who undergoes training in your organization.  
   a) No, we don’t provide any employment to the trainees on the basis of industrial training.  
   b) up to 2%  
   c) 2 to 5%  
   d) 5 to 10%  
   e) any other (please specify)__________________________

Q27  
   Why do you induct students for training.
   a) as per the need of the department  
   b) as per mandatory scheme under the Board of Apprenticeship Act  
   c) under pressure from own employees  
   d) under pressure from govt. agencies.  
   e) due to availability of intelligent people free of cost .  
   f) due to availability of intelligent people at cheap rates.

Q 28  
   How do you rate the following attributes before and after training on a scale 1:5.

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Attributes Before Training

Attributes After Training
CURRICULUM DEVELOPMENT

Curriculum is the base on which student’s foundation is laid. In many of the institutions still old syllabus are being followed inspite of much advancement in the technological field. Present study is aimed to analyse the frequency to revise the academic syllabus, its relevance with growing industrial needs and impact on student’s employment. Kindly tick (V) the relevant column which you consider the most appropriate.

Q 1  Do you participate in framing/revision of institute curriculum?
  a) yes       b) no

Q 2  If yes to Q1, how many times have you participated in institute curriculum in last 5 years.
  i) in the same institute
     a) once      b) twice     c) thrice     d) four times     e) more than four times
  ii) in the different institutes
     a) once      b) twice     c) thrice     d) four times     e) more than four times
     f) not applicable

Q 3  What %age of students academic programmes were found to be relevant to industrial needs before industries participation?
  a) less than 30 %   b) 30-50%    c) 50-60%
  d) 60-80%      e) 80-100%    f) any other (please specify)

Q 4  What %age of students academic programmes became relevant to industrial needs, after industries participation?
  a) less than 50 %   b) 50-60%    c) 60-70%
  d) 70-80%      e) 80-100%    f) any other (please specify)

Q 5  In your opinion how frequently the syllabus should be revised
  i) For core engineering streams
     a) once a year      b) once in 2 years
     c) once in 3 years   d) once in 4 years
     e) any other (please specify)

  ii) For computer/ I.T. related streams
     a) once a year      b) once in 2 years
     c) once in 3 years   d) once in 4 years
     e) any other (please specify)
Q 6  What % age improvement in student perception on latest technologies is seen with joint participation of industry – institute in students curriculum development programs.
   a) less than 40%  
   b) 40-50%  
   c) 50-60%  
   d) more than 60%  
   e) any other (please specify)________

Q 7  What % age improvement in student’s career opportunities has been seen with participation of industries in institute curriculum development program.
   a) less than 10%  
   b) 10-20%  
   c) 20-30%  
   d) more than 30%  
   e) any other (please specify)_______
Section- IV

STUDENT’S EVALUATION

The output of any technical institution is mainly meant for use in industrial houses. Present section will try to explore the participation of industrial houses in student’s evaluation and to analyze its importance in finding weak areas. Kindly tick (√) the relevant column which you consider the most appropriate.

Q 1 Do you feel the current way of evaluating the student’s only through institute faculty is appropriate?
  a) yes b) no

Q 2 Do you participate in student’s evaluation?
  a) yes b) no

Q 3 Answer the following questions, if applicable.

i) Rate on scale 1:5, the industrial participation in the following areas.
   a) in setting papers
   b) in evaluating papers
   c) in lab exams
   d) in workshop exams
   e) in student seminars
   f) in project viva

ii) Rate on scale 1:5, the feedback about student’s strength with industrial evaluation.
   a) regarding basic concept
   b) regarding practical skills
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**c) regarding industrial exposure**

**d) regarding analytical abilities**

**e) regarding managerial skills**

**f) regarding R&D activities**

**g) regarding software applications**

**h) regarding soft skills**

**iii) In how many different institutes have you participated in students evaluations in last 5 years.**

a) 1  b) 2  c) 3  d) 4  e) 5  f) any other (please specify)______________

**iv) What is level of industrial staff involved in student’s evaluation**

a) middle management   b) senior management   c) top management

**v) Are you able to find time for student’s evaluation in spite of busy schedule in the industry**

a) yes   b) most of times   c) sometimes   d) rarely   e) no

**vi) With industrial feedback on student’s weaknesses what % age improvement has been observed in student’s understanding?**

a) up to 5%   b) 5 to 10%   c) 10 to 15%   d) 15 to 20%   e) any other (please specify)______________

xvii
vii) Rate the impact of industrial evaluation on scale 1:5

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a) Provides feedback on weak areas

b) Sharpens student’s knowledge and improves qualities

c) Improves employability in private sector

d) Enhances opportunities for live projects for student in industries

viii) Rate on scale 1:5 the overall industrial participation in student’s evaluation

Q 4 In your opinion what should be the ratio of institute faculty to industrial staff in student’s evaluation

a) 1:1   b) 1:2

c) 2:1   d) any other (please specify)
Section - V

SHARING OF RESOURCES

Sharing of resources reduces the infrastructure cost by making best use of available resources. The purpose of this section is to assess the extent of sharing resources existing between industry and institute. Kindly tick (√) the relevant column which you consider the most appropriate.

Q 1 i) Do you permit the institute to use your resources?
   a) yes  b) no

ii) If yes to Q1 (i), please rate on scale 1:5 , the extent of sharing of following facilities.

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   a) use of softwares
   b) use of testing laboratories
   c) use of library
   d) use of training centers
   e) use of recreation centre e.g. clubs etc.

Q 2 Do you donate any surplus/old equipment to the institute for academic growth of the students?
   a) yes  b) no

Q 3 If yes to Q 2, please tick Yes or No in the appropriate box.
   Yes     No
   a) free of cost
   b) nominal cost
   c) full cost

Q 4 i) Do you permit students to see industrial functioning?
   a) yes  b) no
ii) Rate on scale 1:5 the effectiveness of industrial visits in academic growth of students.

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5 Rate on scale 1:5, the advantages of sharing resources?

- a) provides better interaction
- b) generate money for industries
- c) make you locally known
- d) improves industrial R & D
- e) helps in hunting best student’s talent for training as well as placement
SEMINARS

Technology is changing very fast. One has to upgrade himself very frequently. Seminars are one of the best modes of sharing information. The present section is aimed to study the present status of the frequency of seminars held, areas of seminars, its effectiveness and level of people. Kindly tick (✓) the relevant column which you consider the most appropriate.

Q 1. Do you visit engineering institutes for delivering seminars?
   a) yes    b) no

Q 2. If yes to Q 1, how many visits per semester per institute, normally your organization make for presenting seminar?
   a) 1  b) 2  
   c) 3  d) 4  
   e) more than 4

Q 3. How many engineering institutes do you normally visit for seminars per semester?
   a) 1  b) 2  
   c) 3  d) 4  
   e) more than 4

Q 4. Do you hold seminars for different institutions jointly or separately? Tick the appropriate one.
   a) jointly  b) separately

Q 5. How seminars are arranged.
   a) on the request of institution
   b) industry approaching the institute
   c) on the basis of tie-up with the institutes
   d) as per the agreement between institutes & local industrial association

Q 6. What is the level of staff who delivers seminars in the engineering institutes?
   a) staff up to the rank of manager
   b) staff higher than manager, but below the level of general manager
   c) staff of the rank of general manager & above.
Q 7  
i) Rate on scale 1:5, how frequently the seminars are held on the following areas

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<td>a) on issues related to current technology</td>
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<td>b) on Research and Development</td>
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<td>c) on Entrepreneurship development programme</td>
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<td>d) on Sales promotion</td>
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<td>e) on Personality Development program</td>
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ii) Specify other areas on which seminars are frequently delivered.

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Q 8  
Are you paid any honorarium for presenting seminar?

a) yes  
b) no

Q 9  
Rate the following on scale 1:5,

i) faculty participation in seminars

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ii) faculty interaction during seminar

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iii) student’s interaction in seminars

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iv) effectiveness of seminar

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v) interaction by the institute staff on seminar delivered earlier.

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vi) interaction by the students on seminar delivered earlier

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Q 10  On scale 1 to 5 please rate the percentage improvement in the following attributes, due to seminars.

a) communication skill

b) technological upgradation

c) leadership skills

d) confidence level

e) inspiration to work in specific area

f) opportunities in new fields/present needs of industry

g) future needs of industry.

Q 11 i) What is the duration for which you deliver seminar?
   a) 1 hr  b) 2 hrs  c) 4 hr
   d) 1 day  e) any others (please specify) ________________

ii) In your opinion what is the effective duration of seminar?
   a) 1 hr  b) 2 hrs  c) 4 hrs
   d) 1 day  e) any others (please specify) ________________

Q 12  Do you provide learning materials like hard copy/soft copy to the students participating in the seminars?
   a) no  b) rarely  c) sometimes
   d) quite often  e) always

Q 13  Do you make the institute abreast what industry needs today & look in the future
   a) yes  b) no
Section VII

R & D PROJECTS

Strength of any institution is known from the number of successful projects it has completed in the past. The present section will be helpful in providing the information about barriers in joint projects, thrust areas & active involvement of different institutions in R & D activities. Kindly tick (✓) the relevant column which you consider the most appropriate.

Q1 Do you involve technical institutes in your R & D Projects.
   a) yes   b) no

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Q2 If yes to Q1, rate on scale 1:5, the institute involvement in R & D projects

Q3 What is the mode of participation of the institutes in your R & D projects
   a) jointly   b) individually.

Q4 What are the thrust areas on which R & D projects are carried out?
   a) Design   b) Manufacturing
   c) Analysis   d) Newer Technology
   e) any other (please specify)

Q5 What is normally the tentative duration of the project?
   a) less than 3 months
   b) 3- 6 months
   c) up to 1 year
   d) any other (please specify)

Q6 Which type of institutes do you involve in R & D projects
   a) I.I.T.'s   b) NIT/REC   c) Govt. institutes   d) Private institutes

Q7 Name few institutes with whom you have shared your R & D projects in last 5 years.

Q8 At what level you share your projects
Q 9 What is the criterion of selection of an institute for R & D projects
a) no. of projects a faculty member has handled
b) previous industrial experience of faculty member
c) level / qualification of faculty member

d) industry & faculty level

e) industry, faculty & student level

Q 10 Do you have your own R & D house?

a) yes  b) no

Q 11 What is your past experience of collaboration on R & D projects with technical institutes

a) very good  b) good  c) fair  d) bad  e) bitter

Q 12 Rate on scale 1:5, the following as the barriers that come in way of your collaboration.

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a) lack of communication
b) lack of committed individuals on either side
c) lack of commitment at top
d) lack of recognition for collaborative work
e) lack of institutional/logistic support
f) lack of co-ordination
g) lack of appreciation
h) lack of understanding of each other role
i) lack of transparency and system openness
j) lack of balance in giving and receiving resources
k) lack of trust in collaborative relationship
l) lack of flexibility and nimble organizational structure
Section- VIII

ADJUNCT FACULTY

Most of the technical institutional faculty lacks industrial exposure. Many times there is a need of industrial faculty who can teach specialized subjects partially or fully which are more practical oriented. Present study may help to project the purpose, impact and roadblocks of such an interaction between industry and institute. Kindly tick (✓) the relevant column which you consider the most appropriate.

Q 1 Are people in your organization involved in teaching to engineering college students?
   a) yes   b) no

Q 2 Answer the following questions, if applicable
   i) If yes to Q 1, at what level people in your organization teach a course?
      a) at graduate level   b) at post-graduate level
      c) any other level (please specify) _____________

   ii) Do they teach the subject fully or partially (please tick the appropriate option).
       a) fully   b) partially

   iii) If ‘partially’, what % age of syllabus do they teach?
       a) 75%   b) 50%   c) 25%
       d) any other (please specify) _____________

   iv) What type of subjects do they teach, tick the appropriate option?
       a) specialized   b) general   c) both (specialized & general)

   v) In last 5 years, how many different subjects have they taught?
      a) 1  b) 2  c) 3  d) 4
      e) any other (please specify) _____________

   vi) With how many different institutes do your organization have such an arrangement?
      a) 1  b) 2  c) 3  d) 4
      e) any other (please specify) _____________

Q 3 What is the level of industrial staff engaged in teaching to students?
   a) staff up to the level of Manager
   b) staff higher than Manager but below the level of General Manager
   c) staff of the level of General Manager and above
Q 4 Rate on scale 1:5. the effect of teaching by industrial faculty on student’s learning?

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a) improves basic concepts.

b) improves managerial skills

c) enhances analyzing power

d) able to co-relate its use

Q 5 It has been observed that participation of industrial staff in the institute as faculty is very low. Please rate on scale 1:5, the reasons for low participation.

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| remuneration is very low.
| work pressures are very high, regularity not possible
| interested, but institute don’t invite
| permission not granted by the employer.
| don’t get any reward for this work in an industry
| industries not interested to share secrets
Industry-Institute-Interaction is widely talked issue these days. This purpose of this section is to understand the collaborative areas, strategies, barriers and its effect on quality of education. Kindly tick (√) the relevant column which you consider the most appropriate.

Q 1 Does your organization have collaboration with Engg. colleges?
(a) yes (b) no

Q 2 Which of the following criterion constitute the industry - institute collaboration? Rate on scale 1:5.

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(a) Projects jointly designed & monitored.   |       |       |       |       |       |
(b) Resources being shared.                  |       |       |       |       |       |
(c) Training of industrial staff in institutes. |       |       |       |       |       |
(d) Exposure to institute staff in industry. |       |       |       |       |       |
(e) Training of students in industry.        |       |       |       |       |       |
(f) Joint conferences.                       |       |       |       |       |       |
(g) Seminars                                 |       |       |       |       |       |
(h) Joint workshops                          |       |       |       |       |       |
(i) Curriculum development                   |       |       |       |       |       |

Q 3 Rate the following barriers on scale 1:5 which come in the way of industry-institute collaboration.

(a) Lack of strong communication mechanism. |       |       |       |       |       |

(b) Lack of committed individual on either side |       |       |       |       |       |
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(c) Lack of commitment at the top.  
(d) Lack of recognition for collaborative work  
(e) Lack of institutional/logistic support  
(f) Lack of co-ordination  
(g) Lack of appreciation  
(h) Lack of understanding of each other role  
(i) Lack of transparency & system openness  
(j) Lack of balance in giving & receiving resources  
(k) Lack of trust in collaborative relationship  
(l) Lack of flexibility & visible organizational structure  
(m) Fear of loosing control  
(n) Fear of sacrificing autonomy  
(o) Lack of administrators active involvement & supportive attitude  
(p) Rigid orientation of the institute towards broad based education  
(q) Rigid orientation of the industry towards profit based product
Q 4 Rate the following strategies on scale 1:5 for developing productive industry – institute relationship.

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(a) Negotiations based on written agreement. 
(b) Establishment of monitoring & evaluation procedure
(c) Negotiation based on verbal discussions
(d) Familiarizing staff or participating organization with the collaboration agreement

Q 5 How many industrial - institute collaborations your organization had in last 5 years.
(a) 1  (b) 2  (c) 3  (d) any other (please specify)_______

Q 6 Rate the following benefits of industry - institute interaction on scale 1:5

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<td>Sharing of resource/feedback &amp; inputs.</td>
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<td>Fulfilling education mission.</td>
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<td>Provides top class training.</td>
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<td>Cost saving</td>
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<td>Improves business growth.</td>
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<td>Improves research activities.</td>
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<td>Improves knowledge on emerging technologies.</td>
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<td>Improves joint problem solving skills</td>
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<td>Provides idea about the level of institute xxx</td>
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Q 7 State the feedback about your collaboration with the following on scale 1:5

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(a) Within college/ universities
(b) R & D labs
(c) Community organization
(d) Government agencies
(e) Funding/sponsoring agencies
(f) Alumni
(g) International agencies
(h) Different industrial houses
Personality development programs are gaining popularity all around. Industries lay special emphasis on aptitude and soft skills in comparison to technical knowledge of students. The purpose of this section is to analyse the importance of personality development programs and to understand its impact in present world. Kindly tick (✓) the relevant column which you consider the most appropriate.

Q 1  
i) Do you run personality development (P.D) programs for the students of engineering colleges?
   a) Yes  b) No

   ii) If yes, specify the total duration of P.D. Programs run for students.
   Ans: Number of hours

Q 2  
i) Do you feel P.D. Programs must be a mandatory part of academic syllabus in every engineering college.
   a) Yes  b) No

   ii) If yes, in which semester it should be introduced
   a) 4th  b) 5th
   c) 6th  d) 7th
   e) any other (please specify)

   iii) Should the total modules of P.D. Programs be completed in one semester or may be spread over number of semesters
   a) one semester  b) two semesters
   c) three semesters  d) any other (please specify)

Q 3  What is the usual student strength of P.D. Programs?
   a) up to 20  b) 20-30
   c) 30-40  d) any other (please specify)

Q 4  In your opinion, what is the effective student’s strength for P.D. Program?
   Ans: Number of students

Q 5  a) What is the fee you charge from the institute for one module of P.D. Program?
   Ans: Rs._________ for ___________ hrs

   b) What is the total fee you charge for the complete course?
   Ans: Rs._________ for ___________ hrs
Q 6  Please rate on scale 1:5 the improvement in the following attributes.

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a) personality enhancement
b) probability of employment
c) self-confidence
d) communication skills
e) aptitude skills
f) leadership qualities
g) team work skills
h) discipline
i) attitudes
j) problem solving
k) strategic thinking
l) value education
m) cross cultural understanding