## Internal Quality Assurance Cell (IQAC) Submission of

## **Annual Quality Assurance Report (AQAR)**

(2014-15)



### राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

#### NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bangalore - 560 072 India

#### NAAC

#### **VISION**

To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.

#### **MISSION**

- *◄* To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;
- ← To encourage self-evaluation, accountability, autonomy and innovations in higher education;
- ✓ To undertake quality-related research studies, consultancy and training programmes, and
- ~ To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.

#### **Value Framework**

To promote the following core values among the HEIs of the country:

- > Contributing to National Development
- ➤ Fostering Global Competencies among Students
- ➤ Inculcating a Value System among Students
- ➤ Promoting the Use of Technology
- > Quest for Excellence

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# Guidelines for the Creation of the Internal Quality Assurance Cell (IQAC) and Submission of Annual Quality Assurance Report (AQAR)

#### in Accredited Institutions

#### Introduction

In pursuance of its Action Plan for performance evaluation, assessment and accreditation and quality up-gradation of institutions of higher education, the National Assessment and Accreditation Council (NAAC), Bangalore proposes that every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC will become a part of the institution's system and work towards realisation of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions. For this, during the post-accreditation period, it will channelize all efforts and measures of the institution towards promoting its holistic academic excellence.

The guidelines provided in the following pages will guide and facilitate the institution in the creation and operation of the Internal Quality Assurance Cell (IQAC). The work of the IQAC is the first step towards internalization and institutionalization of quality enhancement initiatives. Its success depends upon the sense of belongingness and participation it can inculcate in all the constituents of the institution. It will not be yet another hierarchical structure or a record-keeping exercise in the institution. It will be a facilitative and participative voluntary system/unit/organ of the institution. It has the potential to become a vehicle for ushering in quality enhancement by working out planned interventionist strategies to remove deficiencies and enhance quality like the "Quality Circles" in industries.

#### **Objective**

The primary aim of IQAC is

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

#### **Strategies**

#### IQAC shall evolve mechanisms and procedures for

- a) Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks;
- b) The relevance and quality of academic and research programmes;
- c) Equitable access to and affordability of academic programmes for various sections of society;
- d) Optimization and integration of modern methods of teaching and learning;
- e) The credibility of evaluation procedures;
- f) Ensuring the adequacy, maintenance and proper allocation of support structure and services;
- g) Sharing of research findings and networking with other institutions in India and abroad.

#### **Functions**

#### Some of the functions expected of the IQAC are:

- a) Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution;
- b) Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- c) Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes;
- d) Dissemination of information on various quality parameters of higher education;
- e) Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- f) Documentation of the various programmes/activities leading to quality improvement;
- g) Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices;
- h) Development and maintenance of institutional database through MIS for the purpose of maintaining /enhancing the institutional quality;
- i) Development of Quality Culture in the institution;
- j) Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC.

#### **Benefits**

IQAC will facilitate / contribute

- a) Ensure heightened level of clarity and focus in institutional functioning towards quality enhancement;
- b) Ensure internalization of the quality culture;
- b) Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices;
- c) Provide a sound basis for decision-making to improve institutional functioning;
- d) Act as a dynamic system for quality changes in HEIs;
- e) Build an organised methodology of documentation and internal communication.

#### **Composition of the IQAC**

IQAC may be constituted in every institution under the Chairmanship of the Head of the institution with heads of important academic and administrative units and a few teachers and a few distinguished educationists and representatives of local management and stakeholders.

The composition of the IQAC may be as follows:

- 1. Chairperson: Head of the Institution
- 2. A few senior administrative officers
- 3. Three to eight teachers
- 4. One member from the Management
- 5. One/two nominees from local society, Students and Alumni
- 6. One/two nominees from Employers /Industrialists/stakeholders
- 7. One of the senior teachers as the coordinator/Director of the IQAC

The composition of the IQAC will depend on the size and complexity of the institution. It helps the institutions in planning and monitoring. IQAC also gives stakeholders or beneficiaries a cross-sectional participation in the institution's quality enhancement activities. The guidelines given here are only indicative and will help the institutions for quality sustenance activities.

The membership of such nominated members shall be for a period of two years. The IQAC should meet at least once in every quarter. The quorum for the meeting shall be two-third of the total number of members. The agenda, minutes and Action Taken Reports are to be documented with official signatures and maintained electronically in a retrievable format.

It is necessary for the members of the IQAC to shoulder the responsibilities of generating and promoting awareness in the institution and to devote time for working out the procedural details. While selecting these members several precautions need to be taken. A few of them are listed below:

- It is advisable to choose persons from various backgrounds who have earned respect for integrity and excellence in their teaching and research. Moreover, they should be aware of the ground realities of the institutional environment. They should be known for their commitment to improving the quality of teaching and learning.
- It would be appropriate to choose as senior administrators, persons in charge of institutional services such as library, computer center, estate, student welfare, administration, academic tasks, examination and planning and development.
- The management representative should be a person who is aware of the institution's objectives, limitations and strengths and is committed to its improvement. The local society representatives should be of high social standing and should have made significant contributions to society and in particular to education.

#### The role of coordinator

The role of the coordinator of the IQAC is crucial in ensuring the effective functioning of all the members. The coordinator of the IQAC may be a senior person with expertise in quality aspects. She/he may be a full-time functionary or, to start with, she/he may be a senior academic /administrator entrusted with the IQAC as an additional responsibility. Secretarial assistance may be facilitated by the administration. It is preferable that the coordinator may have sound knowledge about the computer, its various functions and usage for effective communication.

#### **Operational Features of the IQAC**

Quality assurance is a by-product of ongoing efforts to define the objectives of an institution, to have a work plan to achieve them and to specify the checks and balances to evaluate the degree to which each of the tasks is fulfilled. Hence devotion and commitment to improvement rather than mere institutional control is the basis for devising procedures and instruments for assuring quality. The right balance between the health and growth of an institution needs to be struck. The IQAC has to ensure that whatever is done in the institution for "education" is done efficiently and effectively with high standards. In order to do this, the IQAC will have to first establish procedures and modalities to collect data and information on various aspects of institutional functioning.

The coordinator of the IQAC and the secretary will have a major role in implementing these functions. The IQAC may derive major support from the already existing units and mechanisms that contribute to the functions listed above. The operational features and functions discussed so far are broad-based to facilitate institutions towards academic excellence and institutions may adapt them to their specific needs.

#### **Monitoring Mechanism**

The institutions need to submit yearly the Annual Quality Assurance Report (AQAR) to NAAC. A functional Internal Quality Assurance Cell (IQAC) and timely submission of Annual Quality Assurance Reports (AQARs) are the Minimum Institutional Requirements (MIR) to volunteer for second, third or subsequent cycle's accreditation. During the institutional visit the NAAC peer teams will interact with the IQACs to know the progress, functioning as well quality sustenance initiatives undertaken by them.

The Annual Quality Assurance Reports (AQAR) may be the part of the Annual Report. The AQAR shall be approved by the statutory bodies of the HEIs (such as Syndicate, Governing Council/Board) for the follow up action for necessary quality enhancement measures.

The Higher Education Institutions (HEI) shall submit the AQAR regularly to NAAC. The IQACs may create its exclusive window on its institutional website and regularly upload/report on its activities, as well as for hosting the AQAR.

The NAAC Accredited institutions need to submit only the soft copy as word file (.doc/.docx) through e-mail (capuaqar@gmail.com). The file name needs to be submitted with Track ID of the institution and College Name. For example MHCOGN16601-Samudra Arts and Science College, Taliamegu-Maharashtra.doc or EC\_32\_A&A\_143 dated 3-5-2004-Samudra Arts and Science College, Taliamegu-Maharashtra.doc. The Higher Education Institutions need not submit the printed/hard copy to NAAC. The acknowledgements would be sent to the institutions through e-mail.

#### **Mandatory Submission of AQAR by IQAC**

So far submission of AQARs was not a Mandatory requirement for Institutions applying to NAAC 2<sup>nd</sup> and subsequent cycles of Assessment and Accreditation (A&A). It has now been decided by the Executive committee of NAAC that **regular submission of AQARs should** be made mandatory for 2<sup>nd</sup> and subsequent cycles of accreditation.

In view of the decision of **Executive Committee of NAAC** the following will be the pre-requisites for submission of LOI for all Higher Education Institutions (HEIs) opting for 2<sup>nd</sup> and subsequent cycles of A& A with effect from 16<sup>th</sup> September 2016:

- **→** Having a functional IQAC.
- → The minutes of IQAC meeting and compliance to the decisions should be uploaded on the institutional website.
- → Mandatory submission of AQARs on a regular basis for institutions undergoing the second and subsequent cycles of Assessment and Accreditation by NAAC.
- → Upload the AQAR's on institutional website for access to all stakeholders.

#### The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (*Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013*)

#### Part – A

#### 1. Details of the Institution

| i. Details of the institution       | /II   |  |  |  |  |  |
|-------------------------------------|---|--|--|--|--|--|
| 1.1 Name of the Institution         | Punjab Engineering College<br>(Deemed to be University) |  |  |  |  |  |
| 1.2 Address Line                    | Sector 12   |  |  |  |  |  |
| City/Town                           | Chandigarh  |  |  |  |  |  |
| State                               | Chandigarh (U.T)  |  |  |  |  |  |
| Pin Code                            | 160012  |  |  |  |  |  |
| Institution e-mail address          | Director@pec.ac.in                                      |  |  |  |  |  |
| Contact Nos.                        | 0172-2753051, 3055,3053                                 |  |  |  |  |  |
| Name of the Head of the Institution | on: Prof. Manoj.K. Arora                                |  |  |  |  |  |
| Tel. No. with STD Code:             | 0172-2753051  |  |  |  |  |  |
| Mobile:                             | 9872577544  |  |  |  |  |  |
| Name of the IQAC Co-ordinator:      | Dr.Balwinder Singh Surjan ,                             |  |  |  |  |  |
| Mobile:                             | 9815295005  |  |  |  |  |  |

| IQAC e-mail       | address:  |                           | iqac@pec                     | .ac.in                   |                                      |        |
|-------------------|---|---------------------------|------------------------------|--------------------------|--------------------------------------|--------|
| 1.3 <b>NAAC T</b> | rack ID (For  | ех. МНСО                  | GN 18879)                    |                          | -NA-                                 |        |
| This EC           | xecutive Com<br>mple EC/32/A<br>no. is availabl<br>astitution's Ac                      | &A/143 da<br>e in the rig | ated 3-5-200<br>ht corner- b | ottom                    | -NA-                                 |        |
| 1.5 Website       | address:  |                           | www.Pec                      | ac.in                    |                                      |        |
| V                 | Veb-link of th  | ne AQAR:                  |                              |                          |                                      |        |
|                   | For ex. h   | ttp://www.                | .ladykeane                   | college.edu.i            | n/AQAR2012-                          | 13.doc |
| 1.6 Accredita     | ation Details   |                           |                              |                          |                                      |        |
| Sl. No.           | Cycle   | Grade                     | CGPA                         | Year of<br>Accreditation | Validity Period                      |        |
| 1<br>2<br>3<br>4  | 1 <sup>st</sup> Cycle 2 <sup>nd</sup> Cycle 3 <sup>rd</sup> Cycle 4 <sup>th</sup> Cycle |                           | -No                          | t Applicable-            |                                      |        |
| 1.7 Date of Es    | stablishment o  | f IQAC: Di                | D/MM/YYY                     | ΥY                       | 01.0                                 | 8.2010 |
| 1.8 AQAR fo       | r the year (fo  | r example i               | 2010-11)                     |                          | 20                                   | 14-15  |
|                   |   |                           |                              |                          | iter the latest Ass<br>to NAAC on 12 |        |
| i. AQA            | RNA   |                           |                              |                          | (DD/MM/YY                            | YYY)4  |
|                   |   |                           |                              |                          | (DD/MM/Y                             |        |
|                   |   |                           |                              |                          | (DD/MM/Y                             |        |
| iv. AOA           | RNA   | <b>\-</b>                 |                              |                          | (DD/MM/Y                             | YYY)   |

| 1.10 Institutional Status             | <u></u>  |
|---------------------------------------|--|
| University                            | State Central Deemed V Private                       |
| Affiliated College                    | Yes No V   |
| Constituent College                   | Yes No V   |
| Autonomous college of UGC             | Yes No No  |
| Regulatory Agency approved Inst       | itution Yes V No                                     |
| (eg. AICTE, BCI, MCI, PCI, NCI)       |  |
| Type of Institution Co-education      | on   |
| Urban                                 | <b>1</b> Rural Tribal                                |
| Financial Status Grant-in-            | aid UGC 2(f) UGC 12B                                 |
| Grant-in-ai                           | d + Self Financing Totally Self-financing            |
| 1.11 Type of Faculty/Programme        |  |
| Arts Science                          | Commerce Law PEI (Phys Edu)                          |
| TEI (Edu) Engineering                 | g V Health Science Management                        |
| Others (Specify)                      |  |
| 1.12 Name of the Affiliating Univers  | Punjab Engineering College (Deemed to be University) |
| 1.13 Special status conferred by Cent | ral/ State Government UGC/CSIR/DST/DBT/ICMR etc      |
| Autonomy by State/Central             | Govt. / University                                   |
| University with Potential for Exc     | ellence UGC-CPE                                      |

| DST Star Scheme   | UGC-CE                  |
|---|-------------------------|
| UGC-Special Assistance Programme                                | DST-FIST                |
| UGC-Innovative PG programmes                                    | Any other (Specify)     |
| UGC-COP Programmes  |                         |
| 2. IQAC Composition and Activit                                 | <u>ties</u>             |
| 2.1 No. of Teachers   | 8                       |
| 2.2 No. of Administrative/Technical staff                       | 1                       |
| 2.3 No. of students   |                         |
| 2.4 No. of Management representatives                           | 1                       |
| 2.5 No. of Alumni   |                         |
| 2. 6 No. of any other stakeholder and community representatives |                         |
| 2.7 No. of Employers/ Industrialists                            |                         |
| 2.8 No. of other External Experts                               | 3                       |
| 2.9 Total No. of members  | 13                      |
| 2.10 No. of IQAC meetings held:-                                | Nil                     |
| 2.11 No. of meetings with various stakeholders:                 | No. NIL Faculty         |
| Non-Teaching Staff Students                                     | Alumni Others           |
| 2.12 Has IQAC received any funding from UGC                     | during the year? Yes No |

#### 2.13 Seminars and Conferences (only quality related)

| (i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC |                         |                 |       |      |                |  |  |  |  |
|---|-------------------------|-----------------|-------|------|----------------|--|--|--|--|
| Total Nos.  | Nil International       | National        | State | Inst | titution Level |  |  |  |  |
|   |                         |                 |       |      |                |  |  |  |  |
| (ii) Themes   |                         | -NA-            |       |      |                |  |  |  |  |
| 2 14 Cionificant Activ  | ritias and santuibution | na mada by IOAC |       |      |                |  |  |  |  |

#### 2.14 Significant Activities and contributions made by IQAC

- To develop a quality system for conscious, consistent and catalytic programmed action to improve the academic and administrative performance of the PEC.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.
- To develop a system for conscious and consistent improvement in the performance of the institution.
- To channelize the efforts and measures of the institution towards academic excellence.

#### 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality Enhancement and the outcome achieved by the end of the year \*

|   | Plan of Action  | Achievements   |
|---|---|--|
| • | Appropriate action to be taken for engagement of all the scheduled classes as per the academic calendar  Random monitoring of classes to verify the engagement of classes  To develop a mechanism for complete transparency of student evaluation  Declaration of results within a stipulated period of time  Updatation of academic programs  Complete transparency of student's attendance  Up gradation of classrooms  Renovation of faculty rooms | Achievements  All academic/co curricular activities carried out as per Academic Calendar |
| • | Uploading of up to date information on PEC web server   |  |

| Implementation of tutor scheme                              |
|---|
|   |
| * Attach the Academic Calendar of the year as "Annexure-I". |
|   |
| 2.15 Whether the AQAR was placed in statutory body  Yes  No |
| Management Syndicate - Any other body -                     |
| Provide the details of the action taken                     |
|   |
|   |

Part – B

#### Criterion - I

#### 1. Curricular Aspects

1.1 Details about Academic Programmes

| Level of the<br>Programme | Number of<br>existing<br>Programmes | Number of programmes added during the year | Number of self-financing programmes | Number of value<br>added / Career<br>Oriented<br>programmes |
|---------------------------|-------------------------------------|--|-------------------------------------|---|
| PhD                       | 10                                  | Nil  | Nil                                 | Nil   |
| PG                        | 14                                  | Nil  | 3                                   | Nil   |
| UG                        | 8                                   | Nil  | Nil                                 | Nil   |
| PG Diploma                | Nil                                 | Nil  | Nil                                 | Nil   |
| Advanced Diploma          | Nil                                 | Nil  | Nil                                 | Nil   |
| Diploma                   | Nil                                 | Nil  | Nil                                 | Nil   |
| Certificate               | Nil                                 | Nil  | Nil                                 | Nil   |
| Others                    | Nil                                 | Nil  | Nil                                 | Nil   |
| Total                     | 32                                  | Nil  | 3                                   | Nil   |
| Interdisciplinary         | 03                                  |  | 03                                  |   |

| Innovative  |            |               |         |  |                    |                      |            |                  |               |         |        |
|---|------------|---------------|---------|--|--------------------|----------------------|------------|------------------|---------------|---------|--------|
| 1.2 (i) Flexibility of the (ii) Pattern of progr                  |            | um: CE        | 3CS/0   | Core/Ele   | ective o           | ption /              | Open op    | otions           | S             |         |        |
|   |            |               | Pattern |  |                    | Number of programmes |            |                  |               |         |        |
|   |            | Sen           | nester  |  | 3 (UG, PG & Ph.D.) |                      |            |                  |               |         |        |
|   |            |               | Trir    | nester   |                    |                      |            |                  |               |         | -      |
|   |            |               | An      | nnual  |                    |                      |            |                  |               |         |        |
| 1.3 Feedback from stake (On all aspects)                          | holders*   | Alun          | nni [   | P  | arents             |                      | Employ     | ers              | <b>√</b> Stud | dents   | ٧      |
| Mode of feedback : Online Manual ✓ Co-operating schools (for PEI) |            |               |         |  |                    |                      |            |                  | EI)           |         |        |
| 1.4 Whether there is any  | revision   | /update       | of re   |  | or syl             | labi, if             | yes, men   | tion             | their salie   | ent asj | pects. |
| 1.5 Any navy Danastman  | t/Cantua i | internal duri |         |  |                    | If you               | airea date | .:1 <sub>0</sub> |               |         |        |
| 1.5 Any new Departmen   | it/Centre  | introduc      | No      |  | e year.            | ıı yes,              | give deta  | 111S.            |               |         |        |
|   |            |               |         |  |                    |                      |            |                  |               |         |        |
| Criterion – II  |            |               |         |  |                    |                      |            |                  |               |         |        |
| 2. Teaching, Lea  | rning a    | and E         | val     | uatior   | 1                  |                      |            |                  |               |         |        |
| 2.1 Total No. of  | Total      | Asst          | t. Pro  | ofessors   | Asso               | ciate P              | Professors | P                | rofessors     | Oth     | ers    |
| permanent faculty   | 106        |               | 42      | 2  |                    | 32                   |            |                  | 31            |         | 01     |
| 2.2 No. of permanent fac  | culty with | ı Ph.D.       |         |  | 74                 |                      |            |                  |               |         |        |
| 2.3 No. of Faculty Positi   | ions       | Asst.         |         | Associate Associ |                    | Prof                 | fessors    | C                | Others        | Т       | 'otal  |
| Recruited (R) and Vacar   |            |               | V       | R  | V                  | R                    | V          | R                | V             | R       | V      |
| (V) during the year   | _          |               |         |  | 01                 |                      | 01         | 33               | 03            | 33      | 05     |
|   |            |               |         |  |                    |                      |            |                  |               |         |        |

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#### 2.5 Faculty participation in conferences and symposia:

| No. of Faculty   | International level | National level | State level |
|------------------|---------------------|----------------|-------------|
| Attended         | 11                  | 26             |             |
| Presented papers | 11                  | 24             |             |
| Resource Persons |                     |                |             |

#### 2.6 Innovative processes adopted by the institution in Teaching and Learning:

Institute follows student centric and innovative practices for teaching. Some of these practices followed by faculty are:

- Interactive lectures using various audio-visual aids like computer presentation, Visualize, etc., in addition to Black/White board
- Small group tutorials and assignments
- Laboratories
- Project based learning through mini, minor and major Projects
- Industrial internship
- Collaborative Teaching and Learning
- Report writing and Seminars
- Participation in Conference, Guest lectures, and industry conducted
- Use of online educational resources as supplements
- Simulation studies
- Interactive brainstorming sessions Debates and Discussions
- Case analysis and discussion
- Presentations
- Review and reinforcement
- Use of NPTEL resources The impact of all these practices have been positive as evidenced from students feedback and acceptance with enthusiasm. Learning attainments in all these methods have been above average.
- 2.7 Total No. of actual teaching days during this academic year.

140 Days

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

The Instructor-in-charge, assisted by the team of tutors and others instructors, is responsible for making the question paper, conducting the examination in his/her course, getting the answer scripts evaluated by the team of tutors, and awarding the grades. The end term question paper for UG examinations are moderated by department committee under Chairmanship of Head of the department. The grades for all courses are moderated as per institute guidelines by duly constituted moderation committee. The grades are forwarded through the Head of the Department who will ensure that proper standards have been followed.

The complete transparency will be maintained in evaluation system. The graded scripts of Quizzes,test,and mid –semester examinations will be returned to the students within a reasonable time. The answer scripts of the final examinations will be shown to the students after marking. All instructors will notify a time for such access within three days of the examination . A students may point out errors or omissions, If any, in marking in writing on the cover sheet of the answer script. The instructor will take these into account before submission of grades.

The final grades earned by all students registered in a course will be submitted by the instructor-incharge to the Academic Section through the Head of the Department within the prescribed time limit. 6

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop.

44

2.10 Average percentage of attendance of students

88%

2.11 Course/Programme wise distribution of pass percentage:

| Title of the Programme | Total no. of students | Division      |     |      |       |        |  |  |
|------------------------|-----------------------|---------------|-----|------|-------|--------|--|--|
|                        | appeared              | Distinction % | I % | II % | III % | Pass % |  |  |
| UG                     | 417                   | 2.40%         |     |      |       | 97.60% |  |  |
| PG                     | 228                   | 10.08%        |     |      |       | 89.91% |  |  |
| Ph.D                   | 27                    |               |     |      |       | 100%   |  |  |

- 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:
  - 1. IQAC ensure time table uploading on website by all the department.
  - 2 The record of number of classes held and scheduled by each faculty member is submitted to IQAC twice in a semester in prescribed Performa.
  - 3. The performs are verified and compiled as per the time table.
  - 4. Mass cut and class reschedule register from all the department are maintained by IQAC.
  - 5 . Random monitoring and checking of classes done during the semester
- 2.13 Initiatives undertaken towards faculty development

| Faculty / Staff Development Programmes         | Number of faculty<br>benefitted |
|--|---------------------------------|
| Refresher courses                              | Nil                             |
| UGC – Faculty Improvement Programme            | Nil                             |
| HRD programmes                                 | Nil                             |
| Orientation programmes                         | Nil                             |
| Faculty exchange programme                     | Nil                             |
| Staff training conducted by the university     | Nil                             |
| Staff training conducted by other institutions | 06                              |

| Summer / Winter schools, Workshops, etc. | 05 |
|--|----|
| Others                                   | 09 |

#### 2.14 Details of Administrative and Technical staff

| Category             | Number of<br>Permanent<br>Employees | Number of<br>Vacant<br>Positions | Number of permanent positions filled during the Year | Number of positions filled temporarily |
|----------------------|-------------------------------------|----------------------------------|--|--|
| Administrative Staff | 51                                  | 37                               | Nil  | 27                                     |
| Technical Staff      | 103                                 | 63                               | Nil  | 20                                     |

#### Criterion - III

#### 3. Research, Consultancy and Extension

- 3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution
  - As per our core research focus, University develops R& D competencies in the specific domain areas of sciences & engineering with focus on inter-disciplinary research providing solutions to important issues facing society with emphasis on local problems.
  - Identification of new research areas and deployment of internal resources to implement through PhD research.
  - Facilitations of faculty members to explore new research areas, to generate initial results, and to submit proposals to funding agencies.

#### 3.2 Details regarding major projects

|                     | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number              | 3         | 4       | 3          | 14        |
| Outlay in Rs. Lakhs | 66.69     | 90.0    | 66.81      | 1096.79   |

#### 3.3 Details regarding minor projects

|                     | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number              | Nil       | Nil     | Nil        | Nil       |
| Outlay in Rs. Lakhs | Nil       | Nil     | Nil        |           |

#### 3.4 Details on research publications

|                          | International | National | Others |
|--------------------------|---------------|----------|--------|
| Peer Review Journals     |               |          |        |
| Non-Peer Review Journals |               |          |        |
| e-Journals               |               |          |        |
| Conference proceedings   | 10            | 16       |        |

| 3.5 Details on Impact factor of | of publications: |  |
|---------------------------------|------------------|--|
|                                 |                  |  |

## 3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

| Nature of the Project  | Duration<br>Year | Name of the funding Agency   | Total grant sanctioned | Received |
|--|------------------|--|------------------------|----------|
| Study of Glacier Dynamics<br>using Advanced Remote<br>Sensing Techniques   |                  | Deptt. of Science<br>& Technology,<br>Government of<br>India                           |                        | 8.0      |
| CARTS: Communication Assisted Road Transportation Systems  |                  | ITRA   |                        | 15.61    |
| Feasibility Study for the Management of Strom Water through use of Pervious Concrete in Chandigarh.                                |                  | Department of<br>Environment,<br>Chandigarh<br>Administration                          |                        | 2.53     |
| Facies Mapping of Gangotri<br>Glacier using A WiFS data:<br>A Super –Resolution<br>approach  |                  | Science & Engg. Research Board (SERB), Dept. of Science and Technology, Govt. of India |                        | 5.0      |
| Data Mining and Analysis of Indian Origin Academicians in Foreign Universities for Exploring opportunities of Academic Interaction |                  | Department of<br>Science &<br>Technology,<br>New Delhi                                 |                        | 10.0     |
| UGC –DAE Consortium for Scientific Research  | 2 Years          | UGC – DAE  | 0.90                   | 0.90     |
| Interdisciplinary Projects   | -                | -  | -                      | -        |
| Industry sponsored Projects sponsored by the University/ College   | -                | -  | -                      | -        |
| Students research projects (other than compulsory by the University)   | -                | -  | -                      | -        |
| Any other(Specify)   | -                | -  | -                      | -        |
| Total  | -                | -  | -                      | -        |

| 3.7 No. of books published   | i) With ISBN No            | o. 08         | Chapters | in Edited | l Books                    | 01      |
|--|----------------------------|---------------|----------|-----------|----------------------------|---------|
|  | i) Without ISBN            |               |          |           |                            |         |
| 3.8 No. of University Department   | nents receiving i          | funds from    |          |           |                            |         |
| U  | GC-SAP                     | CAS           |          | DST-FI    | ST                         |         |
| D  | PE                         |               |          | DBT Sc    | cheme/funds                |         |
| -  | itonomy SPIRE              | CPE CE        |          |           | ar Scheme<br>her (specify) |         |
| 3.10 Revenue generated throu   | gh consultancy             | 127 La        | CS       |           |                            |         |
| 3.11 No. of conferences  | Level                      | International | National | State     | University                 | College |
| organized by the Institution   | Number Sponsoring agencies |               |          |           |                            |         |
| 3.12 No. of faculty served as experts, chairpersons or resource persons  13  3.13 No. of collaborations  International 11 National Nil Any other Nil |                            |               |          |           |                            |         |
| 3.14 No. of linkages created of  | uring this year            | 09            |          |           |                            |         |
| 3.15 Total budget for research for current year in lakhs:  |                            |               |          |           |                            |         |
| From Funding agency 1165.34 From Management of University/College 13.05  |                            |               |          |           |                            |         |
| Total 1:   | 178.39                     |               |          |           |                            |         |
|  |                            |               |          |           |                            |         |
|  | T                          | ype of Patent |          |           | Number                     |         |

3.16 No. of patents received this year

| National       | Applied | Nil |
|----------------|---------|-----|
| National       | Granted | Nil |
| Int            | Applied | Nil |
| International  | Granted | Nil |
| Commercialised | Applied | Nil |
| Commerciansed  | Granted | Nil |

3.17 No. of research awards/ recognitions received by faculty and research fellows Of the institute in the year

| Total | International | National | State | University | Dist | College |
|-------|---------------|----------|-------|------------|------|---------|
| 07    | 03            | 03       |       |            |      | 01      |

| 3.18 No. of faculty from the Institution |
|--|
| who are Ph. D. Guides                    |
| and students registered under them       |
|  |
| 3.19 No. of Ph.D. awarded by faculty fr  |

|   | 66  |  |
|---|-----|--|
| Γ | 200 |  |
| 1 | วกร |  |

| 3.19 No. of Ph.D. awarded by faculty from the Inst | titution          | 2         |                     |     |
|--|-------------------|-----------|---------------------|-----|
| 3.20 No. of Research scholars receiving the Fellow | vships (Newly enr | olled + e | xisting ones)       |     |
| JRF 02 SRF 02                                      | Project Fellows   |           | Any other           | 05  |
| 3.21 No. of students Participated in NSS events:   |                   |           |                     |     |
|  | University level  | 15        | State level         | 0   |
|  | National level    | 0         | International level | 0   |
| 3.22 No. of students participated in NCC events:   |                   |           |                     |     |
|  | University level  | 0         | State level         | 4   |
|  | National level    | 15        | International level | 0   |
| 3.23 No. of Awards won in NSS:                     |                   |           |                     |     |
|  | University level  | 1         | State level         | 0   |
|  | National level    | Nil       | International level | Nil |
| 3.24 No. of Awards won in NCC:                     |                   |           |                     |     |
| University level Nil State level                   |                   | 01        |                     |     |
| National Level Internationa                        | l Level           |           |                     |     |

Nil Nil

3.25 No. of Extension activities organized

NII Nil

| University forum |    | College forum |    |           |     |   |
|------------------|----|---------------|----|-----------|-----|---|
| NCC              | 02 | NSS           | 01 | Any other | Nil | ļ |

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility:

Details of extension activities and Institutional Social Responsibility are attached as "Annexure-IV".

#### **Criterion - IV**

#### 4. Infrastructure and Learning Resources

#### 4.1 Details of increase in infrastructure facilities:

| Facilities   | Existing | Newly created | Source of Fund | Total  |
|--|----------|---------------|----------------|--------|
| Campus area  | 131.87   |               |                | 131.87 |
| Class rooms  | 59       |               |                | 59     |
| Laboratories                                       | 89       |               |                | 89     |
| Seminar Halls                                      | 20       |               |                | 20     |
| No. of important equipments purchased              |          |               |                |        |
| $(\geq 1-0 \text{ lakh})$ during the current year. |          |               |                |        |
| Value of the equipment purchased during            |          |               |                |        |
| the year (Rs. in Lakhs)                            |          |               |                |        |
| Others   |          |               |                |        |

#### 4.2 Computerization of administration and library

Library: - The Library is fully computerized using the Libsys software package which is an integrated multi user library management system. The data base of books available is being updated on day to day basis with details of recently acquired books. Library has implemented REFID enabled automation surveillance system for the library under TEQIP-II.

#### 4.3 Library services:

|                 | Existing |       | Existing Newly added |           | Total  |       |
|-----------------|----------|-------|----------------------|-----------|--------|-------|
|                 | No.      | Value | No.                  | Value     | No.    | Value |
| Text Books      | 114116   |       | 2295                 | 20,77,206 | 116411 |       |
| Reference Books | 10943    |       | 17                   | 16779     | 10960  |       |

| e-Books          | 2279 | <br>147  | 14,66,691 | 2426 |   |
|------------------|------|----------|-----------|------|---|
| Journals         | 6960 | <br>     |           | 6960 |   |
| e-Journals       | 2875 | <br>2326 |           |      |   |
| Digital Database | 14   | <br>13   | 95,82,679 |      |   |
| CD & Video       | 1064 | <br>233  |           | 1297 |   |
| Others (specify) |      |          |           |      | - |

#### 4.4 Technology up gradation (overall)

The technology up gradation in the various sections like Engg. Departments, Computer Centre, Library and Auditorium are summarized as below:-

| S.No. | Department                | Lab development                | New Equipments/Software purcha   | sed   | Status  |
|-------|---------------------------|--------------------------------|--|-------|---------|
| 1.    | Aerospace Engg. Deptt.    | Aircraft Structures Lab        | Unsymmetrical bending and shear cen apparatus  | tre   | Working |
|       |                           | Pulse Detonation<br>Engine Lab | Real time data acquisition system and speed sensors  | high  | Working |
|       |                           | Aerodynamics Lab               | 32 channel digital pressure measuring system   |       | Working |
| 2.    | Applied Science<br>Deptt. | Chemistry Research<br>Lab      | Solar Simulator  |       | Working |
|       |                           | Physical Chemistry             | <ol> <li>Conductivity meter.</li> <li>PH Meter</li> <li>Spectronic 200</li> <li>Falling Ball Viscometer</li> </ol> |       | Working |
|       |                           | Condensed Matter<br>Physics    | e/m Hdical Method, B-H loop for mag<br>materials, Curie Temperature for<br>Ferroelectric materials Hall Effect.    | netic | Working |
| 3.    | Computer Science Deptt.   | CSRC Lab.                      | Computer HP i5   | 05    | Working |
|       | Science Deput.            |                                | HP Laser Printer   | 04    | Working |
|       |                           |                                | Server HP Model 350 E, Thin Clint<br>HP  | 02    | Working |
|       |                           |                                | 29AA Thin Clint HP 88 C 95 AA  |       |         |
|       |                           |                                | Multifunctional Printer  | 01    | Working |

|    |                         |                    | Sensore MPR-2400CB, IEEE 802, 15.4 Zigbee. | 20  | Working |
|----|-------------------------|--------------------|--|-----|---------|
|    |                         |                    | MIS 420 Sensor Board Light Temp.           | 04  | Working |
|    |                         |                    | Humidity Barometric Pressure,              |     |         |
|    |                         |                    | Seismic , GPS                              |     |         |
|    |                         |                    | MTS 400 CC Sensor                          | 04  | Working |
|    |                         |                    | MTS 310 CB                                 | 04  | Working |
|    |                         |                    | MDS 300 CA                                 | 04  | Working |
|    |                         |                    | MIB 520 CB                                 | 04  | Working |
|    |                         |                    | Exide Batteries                            | 24  | Working |
| 4  | Electrical France       | M: V.l.            |  | 24  |         |
| 4. | Electrical Engg. Deptt. | Microprocessor Lab | PSCAD upgradtion                           |     | Working |
|    |                         |                    | Traffic light interface,                   |     |         |
|    |                         |                    | Stepper motor interface,                   |     |         |
|    |                         |                    | ADC interface                              |     |         |
|    |                         |                    |  |     |         |
|    |                         | Mechatronics Lab   | Lvdt Trainer Kit                           |     |         |
|    |                         |                    |  |     |         |
|    |                         |                    | Opto Electronics Device                    |     |         |
|    |                         |                    | Characterstices LED,LDR,                   |     |         |
|    |                         |                    | Photo Transistor& photo Diode              |     |         |
|    |                         |                    | Digital Logic Trainer Kit(Logic Gate)      |     |         |
|    |                         |                    |  |     |         |
|    |                         |                    | Pnjunction Diode Trainer Kit               |     |         |
|    |                         |                    | Half Wave,Full Wave & Bridge Rectif        | ier |         |
|    |                         |                    | PLC Trainer Kit                            |     |         |
|    |                         | Power Electronics  | Digital hand held tachometer               |     |         |
|    |                         | Lab                | HP Desktop alongwith complete set          |     |         |

|    |  |  |   | Working |
|----|--|--|---|---------|
|    |  | Microprocessor & Power Electronics Lab | Universal Con/Inv Trainer Kit     Single Power analyzer   |         |
|    |  |  | 3. Transistor amplifier experiment system 4. Operational amplifier circuit  |         |
|    |  |  | experiment system 5. Semi conductor, power semi   | XX7 1.  |
|    |  |  | conductor device experiment      7. Universal op-amp parameter     measurement panel      8. Transistor signal and feedback     amplifier experimental system | Working |
|    |  |  |   | ***     |
| 5. | Electronics and Electrical Communication | Basic Electronics                      | H.P. Server   | Working |
|    | Engineering                              | Microprocessor Lab                     | PCs shared Network in local LAN environment   | Working |
|    |  | PG VLSI Research<br>Lab.               | Cadence VLSI Tools     Red Hat Operating System   | Working |
|    |  | Wireless<br>Communication Lab.         | <ol> <li>Qual Net Simulation</li> <li>HP Desktop Computers</li> <li>Wireless Sensor N/W Kits</li> </ol>   | Working |
| 6. | Mechanical                               | Manufacturing Lab.                     | i) Electrochemical Spark Machine  | Working |
|    | Engg. Deptt.                             | Advance<br>Manufacturing Lab           | i) Micro-Tool-EDM<br>ii) Fast Drill EDM   | Working |
| 7. | Materials and                            | Physical Metallurgy                    | Metallurgical Inverted Microscope   | Working |
|    | Metallurgical Engg. Deptt.               | Physical Metallurgy                    | Table Top Double Disc   | Working |
|    |  |  |   |         |

|    |                         | Physical Metallurgy                     | Steroscopic Zoom Trinocular Microscope                         | Working |
|----|-------------------------|---|--|---------|
|    |                         | Physical Metallurgy                     | SIC Tubular Fur nace   | Working |
|    |                         | Mineral Dressing Lab                    | Digital Weighing balance 500 gm/1mg                            | Workin  |
|    |                         | Mineral Dressing Lab                    | Digital Weighing balance 1000 gm/.01mg                         | Working |
|    |                         | Mineral Dressing Lab                    | Digital Rockwell Hardness Tester                               | Working |
|    |                         | Industrial Materials and Metallurgy Lab | Surface Grinder  | Working |
|    |                         | Extractive Metallurgy<br>Lab            | Digital Temp controller 0 to 600 ℃                             | Working |
|    |                         | Extractive Metallurgy<br>Lab            | Digital Temp controller 0 to 1000℃                             | Working |
|    |                         | Extractive Metallurgy<br>Lab            | Vernier Caliper series 522-602                                 | Working |
|    |                         | Extractive Metallurgy<br>Lab            | Carbon Sulphur apparartus                                      | Working |
|    |                         | Extractive Metallurgy<br>Lab            | Surface roughness tester                                       | Working |
|    |                         | Biomaterials Lab                        | Conductivity meter   | Working |
|    |                         | Physical Metallurgy                     | Metallurgical Inverted Microscope                              | Working |
| 8. | Production Engg. Deptt. | Human Engineering Lab.                  | 3-D Scanning System with high end Laptop With Training         | Working |
|    |                         | Modern manufacturing Lab.               | Load cell with data logger for Draw-bench and extrusion set-up | Working |
| 9. | Civil Engg. Deptt.      | Upgradation of PG<br>Highway Lab. Under | Nuclear Moisture Density Gauge                                 | Working |
|    | Бери.                   | TEQIP-II                                | Bump Integrator as per CRRI Design                             | Working |

#### **Computer Center**

| Software purchases | Microsoft Campus agreement, Trend Micro Antivirus  |
|--------------------|--|
| Equipments         | 2Cyberroam CR 750ia Utm Device Hp ML10 Intel Xeon Quad Core Server Online UPS 6 KVA (Make APC) |
|                    | Dell Vostro C33 Desktop  |
|                    | Handy Cemera(Sony)   |
|                    | Projector Screen (2 Nos.)  |
|                    | Microphone ,Speaker,AudioMixer,USB Capture device,AGA Adapter                                  |
| Band width         | 32Mbps and 1Gbps link from NKN   |

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

Internet access : Yes

Bandwidth available : 32 MBPS and 1GBPS through NKN

How many hotspots are in college : 50 approximate?

How many server : 15

List of software loaded on server : Email, WEB, DNS, DHCP, ADEMIA,

Robot Studio.MatLab, Trendmicro, Ciscoworks, Estinet, Cyberoam, Sonic

point, English edge.

Battery backup (hrs.) : 8 hours

Training to Teachers/Staff is provided by allowing them to attend short term courses and providing financial assistance for the same.

PEC is a part of the National Knowledge Network. The NKN is a state-of-the-art multi-gigabit pan-India network for providing a unified high speed network backbone for all knowledge related institutions in the country. The purpose of such a knowledge network goes to the very core of the country's quest for building quality institutions with requisite research facilities and creating a pool of highly trained professionals. The NKN will enable scientists, researchers and students from different backgrounds and diverse geographies to work closely for advancing human development in critical and emerging areas.

4.6 Amount spent on maintenance in lakhs:

| i) ICT                                   | 79250   |
|--|---------|
| ii) Campus Infrastructure and facilities | 562.16  |
| iii) Equipments                          | 1003.00 |
|  |         |

iv) Others --

**Total:** 

81818.16

#### Criterion - V

#### 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Contribution of IQAC in enhancing awareness about Student Support Services are as follows:

- The IQAC facilitates Orientation sessions for the students to acquaint them with the Vision and Mission of the University and the facilities available in the campus.
- IQAC ensures the students' involvement in intercollegiate events .
- IQAC ensures students participation in research work.
- Various cells (Placement Cell & Counselling Cell)under the contribution of IQAC were established for the students
- 5.2 Efforts made by the institution for tracking the progression

Efforts made by the institution for tracking the progression is attached as Annexure - 1

5.3 (a) Total Number of students

| UG   | PG  | Ph. D. | Others |
|------|-----|--------|--------|
| 1754 | 531 | 178    | Nil    |

(b) No. of students outside the state

326

(c) No. of international students

151

Men

| No   | %  |
|------|----|
| 1647 | 77 |

Women

| No  | %  |
|-----|----|
| 488 | 23 |

| Last Year |    |    |     |                          | Th    | is Year |    |    |     |                          |       |
|-----------|----|----|-----|--------------------------|-------|---------|----|----|-----|--------------------------|-------|
| General   | SC | ST | OBC | Physically<br>Challenged | Total | General | SC | ST | OBC | Physically<br>Challenged | Total |

|  | Ì | 1380 | 257 | 42 |  | 24 | 1703 | 1359 | 244 | 37 |  | 29 | 1754 |
|--|---|------|-----|----|--|----|------|------|-----|----|--|----|------|
|--|---|------|-----|----|--|----|------|------|-----|----|--|----|------|

Demand ratio Dropout %

- 5.4 Details of student support mechanism for coaching for competitive examinations (If any)
  - Students routinely interact with faculty for informal discussions & problem solving. A formal student support mechanism has been initiated.
  - Coaching classes are conducted at Departmental level.
  - Quiz series related to competitive exams are conducted periodically.

No. of students beneficiaries

Nil

5.5 No. of students qualified in these examinations

| NET         | <br>SET/SLET  | <br>GATE | 5 | CAT    | 4 |
|-------------|---------------|----------|---|--------|---|
| IAS/IPS etc | <br>State PSC | <br>UPSC | 4 | Others | 1 |

- 5.6 Details of student counselling and career guidance
  - 1. Individual meetings of the Students Counsellor with the students those who are in need referred by students and faculty.
  - 2. Sessions with students those who are suffering from severe problems.
  - 3. Interaction with the parents of those students who are having severe problems.
  - 4. Discussion with subject teachers for the students those who are not ableto perform well.
  - 5. Group Counselling for common problems.
  - 6. Psychological testing (in order to identify the problem of individual student).
  - 7. Expert talks on personality development, psychological problems, personal and social problems.
  - 8. Peer help group activities (in which students identify problems of their friends and refer them for counselling).
  - 9. Testing and guidance undertaken for staff wards also.
  - 10. Psychotherapy is undertaken for faculty members.
  - 11. Motivating students in need to visit counselling office and creating awareness regarding counselling in institute as well as hostels.
  - 12. Workshop and Power point presentation on time management and stress management.
  - 13. Meditation and Relaxation technique.
  - 14. Interactive session with students on different topics.
  - 15. Individual therapy session.

## LIST OF ACTIVITIES BY STUDENT COUNSELLING CLUB (SCC)

#### 1. ORIENTATION SESSIONS

In the orientation ceremony, students were formally introduced to the Student Counselling Club with ice breakers and an emotionally packed powerpoint presentation dedicated to the freshers for the hard work they had put in to reach so far.

#### 2. SAKSHATKAAR 2.0

Sakshatkaar is the inaugural event of the club where the entire freshman batch takes a 15-minute self-analysis test. These tests are aimed at identifying the students who need counselling and all the students are introduced to the Student Counsellor. Also, the results of the tests are announced for every branch and the happiest branch result is announced. The  $2^{nd}$  edition of the event was organized in 2013-14.

#### 3. SESSION ON PROSPECTS IN FOREIGN EDUCATION

#### (by Chopras, Educational Consultancy Group, Delhi)

A session by experts from Chopras, a higher education consultants group was organized for the students, focused on prospects in foreign education and the procedure to apply to various foreign universities for various programs.

#### 4. TUTOR WARD SCHEME

In the tutor ward scheme, all BE students are divided into groups of 4-5 and a mentor is allotted from their respective departments. The mentor's role is to identify each student's academic problems, get their feedback and to guide them in approaching their field of study. The students are also provided a free lunch in the student café.

#### 5. INDIVIDUAL COUNSELLING

Individual counselling sessions are conducted by the student counsellor Ms. Neelam Vats for any student in the college. The counselling office is open on all working days from 9 am to 5 pm and the club students make sure that everyone is introduced to the office of SCC by organizing different activities.

## 6. COUNSELLING OF STUDENTS ON ACADEMIC PROBATION (REFERRED BY DAA OFFICE)

The academically weak students are counselled individually. Their interests are identified, sessions from out-house experts are also organized. The club students also help these students by providing them the detailed notes, syllabi, and even extra classes.

| INO. OF SITUATION DEHETITE | No. | enefitted | students |
|----------------------------|-----|-----------|----------|
|----------------------------|-----|-----------|----------|

All

#### 5.7 Details of campus placement

|                                       | On campus                          |                              | Off Campus                |
|---------------------------------------|------------------------------------|------------------------------|---------------------------|
| Number of<br>Organizations<br>Visited | Number of Students<br>Participated | Number of<br>Students Placed | Number of Students Placed |
| 76                                    | 316                                | 284                          | Nil                       |

| 5.8 Details of gender sensitization | programmes |
|-------------------------------------|------------|
|-------------------------------------|------------|

| NIL |
|-----|
|     |

| 5.9 Stude | nts Activities   |                           |                    |        |                             |     |
|-----------|--|---------------------------|--------------------|--------|-----------------------------|-----|
| 5.9.1     | No. of students participated   | l in Sports, Games        | and other even     | its    |                             |     |
|           | State/ University level  | 197 National le           | evel 01            | Intern | ational level               | Nil |
|           | No. of students participated   | l in cultural events      | :                  |        |                             |     |
|           | State/ University level  | National le               | evel               | Intern | ational level               |     |
| 5.9.2     | No. of medals /awards won by students in Sports, Games and other events            |                           |                    |        |                             |     |
| Sports:   | State/ University level  | vel 24 International leve |                    |        | Nil                         |     |
|           | l: State/ University level   | Nil National l            | level Nil          | Inter  | national level              | Nil |
|           |  |                           | Number of students |        | Amount                      |     |
|           | Financial support from insti   | tution                    | 446                |        | Rs. 2,23,00,000/-           |     |
|           | Financial support from gove  | ernment                   | 116                |        | Rs. 37,60,000/-             |     |
|           | Financial support from other   |                           |                    |        |                             |     |
|           | Number of students<br>International/ National reco                                 |                           |                    |        |                             |     |
| Fairs     | dent organised / initiatives  : State/ University level  : State/ University level | National le               |                    |        | ational level ational level |     |
|           |  |                           |                    |        |                             |     |

11 Nos

5.12 No. of social initiatives undertaken by the students

| 5.  | 13 Major grievances of students (if any) redressed:NIL   |
|-----|--|
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
| C   | riterion – VI  |
| _   | Covernous Leadership and Management  |
|     | Governance, Leadership and Management  |
| 6.  | State the Vision and Mission of the institution  |
|     | <u>VISION</u>  |
| be  | come a centre of excellence in technical education and research and to occupy a place  |
| ong | st the most eminent institutions of the nation".   |
|     | MISSION  |
|     | To build across the institute a culture of excellence in teaching and learning with needed   |
| _   | performance and accountability from all support activities.  |
|     | To enhance the institute standing as the institute of choice for students across the country; and to augment the presence of international students to at least ten percent of student body. |
|     | To cultivate a field in which new ideas, research and scholarship flourish leading to emergence  |
|     | of creators, innovators, leaders, and entrepreneurs.  To design the education through a continuous process so that the students qualifying from the  |
| -   | institute have the top rating in placement.  |
|     | To achieve excellence in application-oriented research in selected areas of technology to  |
|     | contribute to the development of the region and the nation.  To promote co-and extra-curricular activities for over-all personality development of the                                       |
|     | students.  |
|     | To develop responsible citizenship through awareness and acceptance of ethical values.<br>To build a family of alumni and friends to create a network of allegiance and support for the      |
| _   | institute.   |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |
| 6.2 | 2 Does the Institution has a management Information System   |
|     | Yes  |
|     |  |
|     |  |

6.3 Quality improvement strategies adopted by the institution for each of the following:

#### 6.3.1 Curriculum Development

The Senate of the institute is the highest academic body, which has complete freedom to change the curriculum at short intervals. The Senate has two external members (typically one from academic institution of excellence such as IITs and the other from the industry). The Senate is guided by the Institute Academic Programme Committee and the Department/Center Academic Programme Committees. These committees have student representatives as members. Both, topdown and bottom-up approaches are prevalent in designing and development of the curricula. The committees take frequent inputs from the various stakeholders (i.e., industry, alumni and students) while proposing any changes in the curricula. The last UG curricula revision happened in 2014-15, with enormous flexibility given to the departments and students to form baskets of electives in different disciplines. The courses such as communication skills, technical communication, ethics and self awareness, engineering analysis and design, computer programming, full semester internship, industrial tours, as common core for all programmes, and suitable baskets of electives of basic sciences, engineering sciences, humanities and management for all programmes, are the hallmark of this curricula. The concept of minor and major specializations has also been introduced. The next cycle of revision of UG curriculum is also due now.

The departments also have freedom to change the content of the courses or add new courses in the baskets of electives, whenever they so desire, with the approval of the Senate or the Chairman of the Senate.

Further, the revision in PG curriculum is also in the pipeline.

#### 6.3.2 Teaching and Learning

The faculty members have been trained to use technology in their teaching learning processes. They use the e-content available on different online platforms. For the last three years, many Re of the OEEE courses are being taught to the students, wherein local faculty is also involved. From the last semester, the institute has started a few MOOCS courses on SWAYAM platform, a local faculty is assigned who also registers for the course, and these courses are taught in a blended mode. Facilities are also created where in faculty can generate their own digital content.

| Revised Guidelines of IQAC and submiss | ion of AQAR |
|--|-------------|
|  |             |

#### 6.3.3 Examination and Evaluation

The evaluation of the students is a continuous process and is based on their performance in mid-semester examination, end semester examination, quizzes/short tests, tutorials, assignments, laboratory work (if any), make-up examinations (if applicable), etc. In general, there shall be no choice in test/examination papers.

The Instructor-in-charge, assisted by the team of tutors and other instructors, is responsible for making the question paper, conducting the examination in his/her course, getting the answer scripts evaluated by the team of tutors, and awarding the grades. The end term question paper for UG examinations are moderated by department committee under Chairmanship of Head of the department. The grades for all courses are moderated as per institute guidelines by duly constituted moderation committee. The grades are forwarded through the Head of the Department who will ensure that proper standards have been followed.

The complete transparency will be maintained in evaluation system. The graded scripts of quizzes, tests, and mid-semester examinations will be returned to the students within a reasonable time. The answer scripts of the final examinations will be shown to the students after marking. All instructors will notify a time for such access within three days of the examination. A student may point out errors or omissions, if any, in marking in writing on the cover sheet of the answer script. The instructor will take these into account before submission of grades.

The final grades earned by all students registered in a course will be submitted by the Instructor-in-charge to the Academic Section through the Head of the Department within the prescribed time limit.

#### 6.3.4 Research and Development

The institute encourages its faculty to undertake research in the field of science and technology through sponsored projects. At present faculty along with research scholars and research fellows are engaged in sponsored project of 2 to 5 years duration funded by Government agencies. Some of the sponsoring agencies are Department of Science and Technology, Department of Information Technology, Indo-French Centre for the Promotion of Advanced Research, CSIR, AICTE, SASE and Chandigarh Administration. PEC University of Technology encourages its faculty to undertake inhouse research projects by providing them internal funding for creation/enhancement of facility, which is useful to research students(M. Tech. & PhD) as well as to the needs of the industry.

#### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- a) Adequate funds for maintenance and up gradation of physical facilities.
- b) Adequate non –recurring budget for up gradation of laboratory equipment.
- c) LCD projectors for all lecture rooms.
- d) Wi-fi internet connectivity in academic area.
- e) Laptop with every student.
- f) Adequate funds for purchase of books, journals, CDs.
- g) Membership of INDEST consortium.
- h) Technology Enhanced Learning Resources like NPTEL etc.
- i) Academic web server for uploading academic content.
- j) Online Public Access Catalogue for efficient user search from any location in the campus.
- k) Good learning ambience in library

#### 6.3.6 Human Resource Management

- 1. There is emphasis on team building and involving all in taking decisions and implementing them.
- 2. A course on Human Values and Professional Ethics and Environment Science have been made mandatory for all the students during first year of their graduation.

#### 6.3.7 Faculty and Staff recruitment

Applications invited through advertisement in leading newspapers and notification on PEC website. The Selection process is given as under:

- a) A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS), set out in UGC Regulation in Tables I to IX of Appendix III.
- b) The Selection Committee for the post of Assistant professor, Associate Professor and Professor in the University shall have the following composition.
- 1. The Director shall be the Chairman of the Selection Committee.
- 2. Three experts in the concerned subject nominated by the Director out of the panel of names approved by the relevant statutory body of the University.
- 3. Nominee of the Chandigarh Administration.
- 4. Head of the concerned Department
- 5. One representative of SC Category, if any of the candidates representing these categories is the applicant and if any of the above members of the selection committee do not belong to that category.
- 6. One representative of OBC Category if any of the candidates representing these categories is the applicant and if any of the above members of the selection committee do not belong to that category.

#### 6.3.8 Industry Interaction / Collaboration

| Sr. No. | MoU with Industry/ Goverment/Institute      | MoU Signing Date |
|---------|---|------------------|
| 1.      | Punjab Remote Sensing Centre (PRSC)         | 03.06.2015       |
| 2.      | Tata Power Delhi Distribution Limited (DDL) | 12.06.2015       |

#### 6.3.9 Admission of Students

- The entire application process for admission is online. Admissions to the B.Tech. programmes are base on merit list of JEE Mains conducted on an all India basis.
- The admission to M.Tech programmes is regulated through Centralized Counseling of M.Tech. with valid GATE score.
- Admission to the Ph.D programme is made on the basis of entrance test at institute level/ GATE examination and/or performance in the personal interview.

| 6.4 Welfare schemes 1                         | Teach                          | _           | orkshops, confere             | nces and                      |                     |     |
|---|--------------------------------|-------------|-------------------------------|-------------------------------|---------------------|-----|
| VI () (1.01.01.00 )                           | Non<br>teachi                  | ng          | ining Programme               |                               |                     |     |
|   | Stude                          |             | est lectures ,Confe<br>ninars | erences and                   |                     |     |
|   |                                |             |                               |                               |                     |     |
| 6.5 Total corpus fund ş                       | generated                      | 630         | 51532.00                      |                               |                     |     |
| 6.6 Whether annual fir                        | ancial audit                   | has been    | done Yes                      | V No                          |                     |     |
|   |                                |             |                               | v                             |                     |     |
| 6.7 Whether Academic                          | and Admin                      | istrative . | Audit (AAA) has               | been done?                    |                     |     |
| Audit Typ                                     |                                |             | ternal                        | Inte                          | rnal                |     |
| Tradit Typ                                    |                                | s/No        | Agency                        | Yes/No                        | Authority           |     |
| Academic                                      |                                |             |                               |                               |                     |     |
| Administrativ                                 | e                              |             |                               |                               |                     |     |
| 6.8 Does the Universit 6.9 What efforts are m | For UG F For PG P ade by the U | rogramm     | nes Yes ,                     | No No No No Sollege for Exami | ]<br>nation Reforms |     |
| Periodic mee                                  | ting are cond                  | lucted by   | the institute to l            | ook into grievar              | ices / suggestio    | ns. |
| 6.10 What efforts are r                       | made by the                    | Universit   | y to promote auto             | onomy in the aff              | iliated/constitue   | ent |
| colleges?                                     |                                | N           | ot Applicable                 |                               |                     |     |
|   |                                |             |                               |                               |                     |     |

| 6.11 Activities and support from the Alumni Association | 6.11 | Activities | and s | upport | from | the | Alumni | Association |
|---|------|------------|-------|--------|------|-----|--------|-------------|
|---|------|------------|-------|--------|------|-----|--------|-------------|

PECOSA (Punjab Engineering College Old Students Association) holds two main functions in the institute namely, Global Alumni Meet in the month of February every year and Jaspal Bhatti Cultural Evening during September every year. On both these occasions, PECOSA rewards several awards and scholarships to different students of the institute.

| 6.      | 12 | <b>Activities</b> | and sup | port from    | the Parent -   | – Teacher | Association   |
|---------|----|-------------------|---------|--------------|----------------|-----------|---------------|
| $\cdot$ |    | 1 ICU VILIOS      | una bup | POIL II OIII | tile i tiletit | 1 Cuciici | 1 ibbootiumon |

| Nil |  |  |  |
|-----|--|--|--|
|     |  |  |  |

#### 6.13 Development programmes for support staff

| S.No. | Programme Name                               | Duration                       | Institution Organization      |
|-------|--|--------------------------------|-------------------------------|
| 1     | Training Programme for Administrative Staff  | 01.09.2014<br>To<br>05.09.2014 | MNIT Jaipur                   |
| 2     | On the topic of "Building Postive Attitudes" | 09.03.2015<br>To<br>13.09.2015 | NITTTR, Sector 26,Chandihgarh |

#### 6.14 Initiatives taken by the institution to make the campus eco-friendly

| Nil |  |  |  |
|-----|--|--|--|
|     |  |  |  |
|     |  |  |  |

#### Criterion - VII

#### 7. Innovations and Best Practices

| 7.1 | Innovations introduced during this academi    | c year which | have created | a positive | impact | on the |
|-----|---|--------------|--------------|------------|--------|--------|
|     | functioning of the institution. Give details. |              |              |            |        |        |

| 1  | Maman | Grievance | COLL |
|----|-------|-----------|------|
| Ι. | women | Grievance | cen. |

- 2. Feedback mechanism
- 3. Use of ICT in teaching.
- 4. Organizing seminar or talk or emerging topic.
- 5. Preparing newsletter for the department activities.

| 7.2 | Provide the Action Taken Report (ATR) based on the plan of action decided upon at the | he |
|-----|---|----|
|     | beginning of the year   |    |

As per the plans of Higher Education Institute mentioned in previous AQAR, Institute has made sincere efforts to improve overall performance of the institute.

As an initiative towards increasing sponsored research & consultancy projects, the amount of funds from external agencies for research projects increased from 200 to 300 lacs approximately. Also consultancy projects were undertaken. The faculty members published as many as 282research papers in various international/national journals and conferences. PEC also organized Industry Academia week and expert lectures from various institutes to strengthen industry academiaties. Seven short term courses /workshops were organized by various departments. NSS continued its action plans for helping the underprivileged by providing microfinance to various individuals. In the year 2013-14, as many as ninety six percent of elegible BE students and sixty two percent of elegible ME students have been offered jobs through campus interviews. Students participated in various technical and cultural events at national and international level.

|              | NIL  |                          |
|--------------|--|--------------------------|
|              |  |                          |
| *Provide the | details in annexure (annexure need                               | d to be numbered as i, i |
|              | details in annexure (annexure need mental awareness / protection | d to be numbered as i, i |
|              | ,  | d to be numbered as i, i |

| 7.5 W  | hether environmental audit was conducted?       | Yes         | No No         | ٧        |             |
|--------|---|-------------|---------------|----------|-------------|
| 7.6 Aı | ny other relevant information the institution w | vishes to a | add. (for exa | mple SWO | T Analysis) |
|        | NIL   |             |               |          |             |
|        |   |             |               |          |             |

#### 8. Plans of institution for next year

- To sustain and improve the overall performance of the institute on National and International level.
- To adopt best practices at the institute for teaching and research.
- To improve communication skills, entrepreneurship skills and innovative skills etc. by way of encouraging the students to perform and to take part in national and international events.
- Take initiatives to fill vacant faculty posts.
- Take initiatives to rationalize the staff strength by increasing at certain levels and outsourcing at other levels.
- Increase sponsored research and consulting projects.
- To increase the number of students being admitted to PhD programme.
- To encourage faculty members to publish more number of research papers in refereed journals and national and international conferences.
- Encourage students to undergo overseas exchange programme.
- Organize interaction with industry and alumni through annual meets in each department.
- Organize short courses and workshops/seminars/conferences by various departments.
- Undertake city initiatives every year and offer solutions for urban problems.
- Undertake department level or NSS level initiatives or affirmative action for helping the underprivileged through skill development /knowledge development.
- To upgrade the infrastructural facilities in the various departments of the institute and ensure optimum utilization of them.

| Name                               | Name                              |        |
|------------------------------------|-----------------------------------|--------|
| Signature of the Coordinator, IQAC | Signature of the Chairperson, IQA | —<br>C |
|                                    | ***                               |        |

#### Annexure I

#### **Abbreviations:**

CAS - Career Advanced Scheme

CAT - Common Admission Test

CBCS - Choice Based Credit System

CE - Centre for Excellence

COP - Career Oriented Programme

CPE - College with Potential for Excellence

DPE - Department with Potential for Excellence

GATE - Graduate Aptitude Test

NET - National Eligibility Test

PEI - Physical Education Institution

SAP - Special Assistance Programme

SF - Self Financing

SLET - State Level Eligibility Test

TEI - Teacher Education Institution

UPE - University with Potential Excellence

UPSC - Union Public Service Commission

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